APPENDIX A

12-HOUR TURNING MOVEMENT COUNT SUMMARIES

Study Name Location 1 Lakeshore Blvd & Peter White Dr
Date 10/01/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Peter White Dr Southeastbound				Lakeshore Blvd Southwestbound				Parking Lot Northwestbound				Lakeshore Blvd Northeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	1	1	0	0	0	0	2	0	2	1	0	0
6:30 AM	3	0	0	0	0	0	0	0	0	0	0	0	1	1	5	0
6:45 AM	2	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0
7:00 AM	7	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0
7:15 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
7:30 AM	5	0	0	0	0	3	0	0	0	0	0	0	0	5	1	0
7:45 AM	1	0	0	0	0	2	0	0	0	0	2	0	2	4	0	0
8:00 AM	5	0	0	0	0	5	0	0	0	0	0	0	0	8	0	0
8:15 AM	3	0	0	0	0	5	0	0	0	0	0	0	1	7	1	0
8:30 AM	7	0	0	0	0	6	0	0	0	0	2	0	0	5	3	0
8:45 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	13	3	0
9:00 AM	4	0	0	0	0	6	0	0	0	0	2	0	0	7	3	0
9:15 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	14	0	0
9:30 AM	1	0	0	0	0	15	0	0	0	0	0	0	0	19	1	0
9:45 AM	5	0	0	0	0	7	0	0	0	0	1	0	2	21	3	0
10:00 AM	2	0	0	0	0	21	0	0	0	0	1	0	2	21	5	0
10:15 AM	2	1	0	0	1	16	0	0	0	1	0	0	0	14	2	0
10:30 AM	3	1	0	0	0	15	0	0	0	0	5	0	1	22	0	0
10:45 AM	1	0	0	0	1	11	0	0	0	0	0	0	1	14	1	0
11:00 AM	2	0	0	0	0	15	0	0	0	0	1	0	0	13	1	0
11:15 AM	4	0	0	0	0	29	1	0	0	0	1	0	1	21	3	0
11:30 AM	4	0	0	0	1	13	0	0	0	0	0	0	0	14	2	0
11:45 AM	5	0	0	0	3	20	0	0	0	0	2	0	0	17	0	0
12:00 PM	2	0	1	0	0	10	0	0	0	0	2	0	0	20	5	0
12:15 PM	3	0	0	0	0	28	0	0	0	0	0	0	0	27	4	0
12:30 PM	4	0	1	0	2	18	0	0	0	0	3	0	0	25	4	0
12:45 PM	6	0	0	0	0	21	0	0	0	0	0	0	0	35	2	0
1:00 PM	0	0	0	0	0	20	0	0	0	0	0	0	0	37	3	0
1:15 PM	1	0	0	0	0	31	1	0	0	0	2	0	1	51	4	0
1:30 PM	5	0	2	0	2	37	0	0	0	0	1	0	0	24	2	0
1:45 PM	6	0	1	0	1	29	0	0	1	1	0	0	1	28	4	0
2:00 PM	5	0	1	1	2	38	0	0	0	0	1	0	0	30	4	0
2:15 PM	5	0	1	0	2	31	0	0	1	0	2	0	2	23	5	0
2:30 PM	5	0	1	0	1	35	0	0	0	0	4	0	2	30	6	0
2:45 PM	4	0	0	0	1	28	0	0	0	0	2	0	1	34	3	0
3:00 PM	4	1	1	0	0	30	1	0	0	0	0	0	0	25	9	0
3:15 PM	3	0	0	0	0	22	0	0	0	1	3	0	1	26	3	0
3:30 PM	8	0	0	0	1	36	0	0	0	0	1	0	0	39	7	0
3:45 PM	9	0	1	0	6	33	0	0	0	0	3	0	0	20	3	1
4:00 PM	8	0	1	0	0	24	1	0	0	0	0	0	0	32	6	0
4:15 PM	5	0	2	0	0	34	0	0	0	0	3	0	1	35	5	0
4:30 PM	2	0	1	0	1	25	1	0	0	0	2	0	1	26	6	0
4:45 PM	3	1	1	0	1	21	0	0	0	0	2	0	1	34	3	0
5:00 PM	1	0	0	0	0	38	0	0	0	0	0	0	0	36	4	0
5:15 PM	3	0	0	0	1	38	0	0	1	0	1	0	1	25	6	0
5:30 PM	4	0	0	0	0	31	0	0	0	0	1	0	1	26	5	0
5:45 PM	7	0	0	0	0	24	0	0	0	0	1	0	0	28	4	0

Study Name Location 1 Lakeshore Blvd & Peter White Dr
Date 10/01/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Peter White Dr Southeastbound				Lakeshore Blvd Southwestbound				Parking Lot Northwestbound				Lakeshore Blvd Northeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0

Study Name Location 1 Lakeshore Blvd & Peter White Dr
Date 10/01/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Peter White Dr Southeastbound				Lakeshore Blvd Southwestbound				Parking Lot Northwestbound				Lakeshore Blvd Northeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name Location 1 Lakeshore Blvd & Peter White Dr
Date 10/01/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Peter White Drive Crossing Northwest leg	Lakeshore Blvd Crossing Northeast Leg	Parking Lot Crossing Southeast Leg	Lakeshore Blvd Crossing Southwest Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	1	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	1	0	0	0
8:00 AM	1	0	0	0
8:15 AM	3	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	1	0	0	0
9:30 AM	0	0	0	0
9:45 AM	2	0	0	0
10:00 AM	6	0	0	0
10:15 AM	2	0	0	0
10:30 AM	0	0	0	0
10:45 AM	2	0	0	0
11:00 AM	0	0	0	1
11:15 AM	1	0	0	0
11:30 AM	5	0	0	0
11:45 AM	3	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	1	0	0	0
1:15 PM	0	0	0	0
1:30 PM	1	0	0	0
1:45 PM	0	0	0	0
2:00 PM	1	0	0	0
2:15 PM	0	0	0	0
2:30 PM	1	0	0	0
2:45 PM	2	0	0	0
3:00 PM	0	0	0	0
3:15 PM	5	0	0	0
3:30 PM	1	0	0	0
3:45 PM	2	0	0	0
4:00 PM	4	0	0	0
4:15 PM	8	0	0	0
4:30 PM	0	0	0	0
4:45 PM	3	0	0	0
5:00 PM	7	0	0	0
5:15 PM	0	0	0	0
5:30 PM	1	0	1	0
5:45 PM	3	0	0	0

Study Name Location 1 Lakeshore Blvd & Peter White Dr
Date 10/01/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Peter White Drive Crossing Northwest leg	Lakeshore Blvd Crossing Northeast Leg	Parking Lot Crossing Southeast Leg	Lakeshore Blvd Crossing Southwest Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	2	0	0	0
8:30 AM	2	0	0	0
8:45 AM	1	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	2	0	0	0
10:30 AM	2	0	0	0
10:45 AM	1	0	0	0
11:00 AM	1	0	0	0
11:15 AM	0	0	0	0
11:30 AM	1	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	1	0	0	0
1:15 PM	1	0	0	0
1:30 PM	3	0	0	0
1:45 PM	2	0	0	0
2:00 PM	1	0	0	0
2:15 PM	3	0	0	0
2:30 PM	3	0	0	0
2:45 PM	2	0	0	0
3:00 PM	4	0	0	0
3:15 PM	1	0	0	0
3:30 PM	12	0	0	0
3:45 PM	2	0	0	0
4:00 PM	0	0	0	0
4:15 PM	3	0	0	0
4:30 PM	2	0	0	0
4:45 PM	2	0	0	0
5:00 PM	0	0	0	0
5:15 PM	3	0	0	0
5:30 PM	5	0	0	0
5:45 PM	3	0	0	0

Study Name Location 1 Lakeshore Blvd & Peter White Dr
Date 10/01/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Lakeshore Blvd Southeastbound				Lakeshore Blvd Southwestbound				Parking Lot Northwestbound				Lakeshore Blvd Northeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	1	1	0	0	0	0	2	0	2	1	0	0
6:30 AM	3	0	0	0	0	0	0	0	0	0	0	0	1	1	5	0
6:45 AM	3	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0
7:00 AM	7	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0
7:15 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
7:30 AM	5	0	0	0	0	3	0	0	0	0	0	0	0	5	1	0
7:45 AM	1	0	0	0	0	2	0	0	0	0	2	0	2	5	0	0
8:00 AM	5	0	0	0	0	5	0	0	0	0	0	0	0	8	0	0
8:15 AM	3	0	0	0	0	5	0	0	0	0	0	0	1	7	1	0
8:30 AM	7	0	0	0	0	6	0	0	0	0	2	0	0	6	3	0
8:45 AM	0	0	0	0	0	9	0	0	0	0	0	0	0	13	3	0
9:00 AM	4	0	0	0	0	6	0	0	0	0	2	0	0	7	3	0
9:15 AM	0	0	0	0	0	9	0	0	0	0	0	0	0	15	0	0
9:30 AM	1	0	0	0	0	16	0	0	0	0	0	0	0	19	1	0
9:45 AM	5	0	0	0	0	7	0	0	0	0	1	0	2	21	3	0
10:00 AM	2	0	0	0	0	21	0	0	0	0	1	0	2	21	5	0
10:15 AM	2	1	0	0	1	16	0	0	0	1	0	0	0	14	2	0
10:30 AM	3	1	0	0	0	15	0	0	0	0	5	0	1	22	1	0
10:45 AM	2	0	0	0	1	12	0	0	0	0	0	0	1	14	1	0
11:00 AM	2	0	0	0	0	15	0	0	0	0	1	0	0	13	1	0
11:15 AM	4	0	0	0	0	29	1	0	0	0	1	0	1	21	3	0
11:30 AM	5	0	0	0	1	13	0	0	0	0	0	0	0	14	3	0
11:45 AM	5	0	0	0	3	20	0	0	0	0	2	0	0	18	0	0
12:00 PM	2	0	1	0	0	10	0	0	0	0	2	0	0	20	5	0
12:15 PM	3	0	0	0	0	28	0	0	0	0	0	0	0	27	4	0
12:30 PM	4	0	1	0	2	19	0	0	0	0	3	0	1	25	4	0
12:45 PM	6	0	0	0	0	21	0	0	0	0	0	0	0	36	2	0
1:00 PM	0	0	0	0	0	20	0	0	0	0	0	0	0	37	3	0
1:15 PM	1	0	0	0	0	31	1	0	0	0	2	0	1	52	4	0
1:30 PM	5	0	2	0	2	37	0	0	0	0	1	0	0	24	2	0
1:45 PM	6	0	1	0	1	29	0	0	1	1	0	0	1	28	4	0
2:00 PM	5	0	1	1	2	38	0	0	0	0	1	0	0	30	4	0
2:15 PM	5	0	1	0	2	31	0	0	1	0	2	0	2	23	5	0
2:30 PM	5	0	1	0	1	35	0	0	0	0	4	0	2	30	6	0
2:45 PM	4	0	0	0	1	28	0	0	0	0	2	0	1	34	3	0
3:00 PM	4	1	1	0	0	30	1	0	0	0	0	0	0	25	10	0
3:15 PM	4	0	0	0	0	23	0	0	0	1	3	0	1	26	3	0
3:30 PM	9	0	0	0	1	36	0	0	0	0	1	0	0	39	8	0
3:45 PM	9	0	1	0	6	34	0	0	0	0	3	0	0	21	3	1
4:00 PM	8	0	1	0	0	24	1	0	0	0	0	0	0	32	6	0
4:15 PM	5	0	2	0	0	34	0	0	0	0	4	0	2	35	5	0
4:30 PM	2	0	1	0	1	25	1	0	0	0	2	0	1	27	6	0
4:45 PM	3	1	1	0	1	21	0	0	0	0	2	0	1	34	3	0
5:00 PM	1	0	0	0	0	38	0	0	0	0	0	0	0	36	4	0
5:15 PM	3	0	0	0	1	38	0	0	1	0	1	0	1	25	6	0
5:30 PM	4	0	0	0	0	31	0	0	0	0	1	0	1	26	5	0
5:45 PM	8	0	0	0	0	24	0	0	0	0	1	0	0	29	5	0

Study Name Location 2 Lakeshore Blvd & Hawley St
Date 10/1/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Hawley St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	2	2	0	3	0	0
6:15 AM	1	1	0	2	3	0	2	0	0
6:30 AM	3	2	0	4	5	0	0	2	0
6:45 AM	1	0	0	11	8	0	5	3	0
7:00 AM	4	1	0	6	8	0	1	1	0
7:15 AM	3	2	0	4	8	0	3	1	0
7:30 AM	3	2	0	7	8	0	4	2	0
7:45 AM	6	6	0	3	12	0	9	3	0
8:00 AM	2	7	0	13	10	0	8	3	0
8:15 AM	4	2	0	6	9	0	5	1	0
8:30 AM	4	4	0	6	4	0	14	3	0
8:45 AM	7	3	0	5	17	0	7	2	0
9:00 AM	6	4	0	12	5	0	7	3	0
9:15 AM	5	7	0	12	4	0	8	5	0
9:30 AM	3	12	0	12	10	0	12	7	0
9:45 AM	3	10	0	28	7	0	4	5	0
10:00 AM	9	13	0	24	8	0	10	5	0
10:15 AM	10	14	0	17	6	0	8	7	0
10:30 AM	8	19	0	21	3	0	8	3	0
10:45 AM	4	10	0	11	3	0	4	5	0
11:00 AM	4	7	0	13	14	0	7	5	0
11:15 AM	11	23	0	17	6	0	5	7	0
11:30 AM	4	13	0	12	6	0	10	6	0
11:45 AM	13	13	0	20	17	0	11	5	0
12:00 PM	5	15	1	22	6	0	8	4	0
12:15 PM	15	14	0	26	6	0	7	7	0
12:30 PM	15	11	0	20	15	0	6	10	0
12:45 PM	21	11	0	35	16	0	8	13	0
1:00 PM	6	17	0	38	17	0	6	12	0
1:15 PM	13	20	0	40	12	0	13	13	0
1:30 PM	16	28	0	27	21	0	10	3	0
1:45 PM	10	29	0	23	10	0	6	7	0
2:00 PM	21	26	0	28	9	0	8	12	0
2:15 PM	13	21	0	21	10	0	13	10	0
2:30 PM	16	30	0	35	11	0	10	8	0
2:45 PM	18	24	0	30	10	0	8	10	0
3:00 PM	15	26	0	27	8	0	10	9	0
3:15 PM	13	20	0	26	9	0	9	14	0
3:30 PM	14	29	0	30	10	0	12	11	0
3:45 PM	16	31	0	22	7	0	13	11	0
4:00 PM	11	23	0	30	12	0	23	13	0
4:15 PM	12	33	0	29	13	0	10	10	0
4:30 PM	12	22	0	23	13	0	16	16	0
4:45 PM	13	16	0	35	11	0	20	8	0
5:00 PM	12	24	0	28	20	0	26	15	0
5:15 PM	14	35	0	18	19	0	25	18	0
5:30 PM	7	27	0	23	10	0	13	11	0
5:45 PM	12	27	0	33	9	0	16	11	0

Study Name Location 2 Lakeshore Blvd & Hawley St
Date 10/1/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Hawley St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	1	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	2	1	0	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0
8:15 AM	1	1	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	3	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	1	0	0
9:15 AM	0	1	0	1	0	0	0	0	0
9:30 AM	0	0	0	0	1	0	0	0	0
9:45 AM	0	0	0	0	1	0	1	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	1	0
10:45 AM	1	0	0	0	1	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	1	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	1	0	0
11:45 AM	1	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	1	1	0	1	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	1	0	0	0	0
1:15 PM	0	0	0	2	0	0	0	0	0
1:30 PM	0	0	0	1	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	1	0	0
2:00 PM	0	0	0	0	1	0	1	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	1	0	0	0	0
2:45 PM	1	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	1	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	1	0	0
3:30 PM	1	0	0	0	0	0	0	1	0
3:45 PM	1	0	0	1	2	0	0	0	0
4:00 PM	0	1	0	0	0	0	1	1	0
4:15 PM	0	0	0	1	2	0	1	0	0
4:30 PM	1	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	1	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0
5:15 PM	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	1	0	0	1	1	0

Study Name Location 2 Lakeshore Blvd & Hawley St
Date 10/1/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Hawley St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	0	1	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	1	0	0	0	0
7:00 AM	0	0	0	0	2	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	1	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	1	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	1	0	1	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	1	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	1	0	0	0	0
11:45 AM	0	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	0	0
1:00 PM	0	0	0	0	2	0	0	0	0
1:15 PM	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	1	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	1	0
3:15 PM	1	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name Location 2 Lakeshore Blvd & Hawley St
Date 10/1/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Lakeshore Blvd Crossing North Leg	Lakeshore Blvd Crossing South Leg	Hawley St Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	8
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	2
8:45 AM	0	0	1
9:00 AM	0	0	1
9:15 AM	1	0	0
9:30 AM	1	0	1
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	1	1
10:30 AM	1	0	1
10:45 AM	1	0	5
11:00 AM	2	0	0
11:15 AM	0	0	3
11:30 AM	0	0	1
11:45 AM	0	0	2
12:00 PM	2	0	8
12:15 PM	0	0	6
12:30 PM	1	0	2
12:45 PM	1	1	2
1:00 PM	1	0	1
1:15 PM	4	0	1
1:30 PM	1	0	0
1:45 PM	0	0	1
2:00 PM	0	1	2
2:15 PM	0	0	0
2:30 PM	0	0	1
2:45 PM	0	0	0
3:00 PM	0	0	4
3:15 PM	0	1	1
3:30 PM	0	0	2
3:45 PM	0	2	2
4:00 PM	0	0	5
4:15 PM	0	0	5
4:30 PM	0	0	3
4:45 PM	2	0	3
5:00 PM	5	0	1
5:15 PM	9	5	8
5:30 PM	4	6	3
5:45 PM	2	0	3

Study Name Location 2 Lakeshore Blvd & Hawley St
Date 10/1/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Lakeshore Blvd Crossing North Leg	Lakeshore Blvd Crossing South Leg	Hawley St Crossing West Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	1
7:30 AM	0	0	1
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	1
8:30 AM	0	0	2
8:45 AM	0	0	0
9:00 AM	0	0	2
9:15 AM	0	0	0
9:30 AM	0	0	2
9:45 AM	0	0	2
10:00 AM	0	0	5
10:15 AM	0	0	2
10:30 AM	0	0	0
10:45 AM	0	0	1
11:00 AM	0	0	3
11:15 AM	0	0	4
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	1
12:15 PM	0	0	1
12:30 PM	0	0	0
12:45 PM	0	0	6
1:00 PM	0	0	4
1:15 PM	0	0	2
1:30 PM	0	0	6
1:45 PM	0	0	8
2:00 PM	0	0	3
2:15 PM	0	0	4
2:30 PM	0	0	2
2:45 PM	0	0	2
3:00 PM	0	0	7
3:15 PM	0	0	6
3:30 PM	0	0	8
3:45 PM	0	0	1
4:00 PM	0	0	3
4:15 PM	0	0	4
4:30 PM	0	0	2
4:45 PM	0	0	3
5:00 PM	1	0	0
5:15 PM	0	0	5
5:30 PM	0	0	10
5:45 PM	0	0	10

Study Name Location 2 Lakeshore Blvd & Hawley St
Date 10/1/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Hawley St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	2	3	0	3	0	0
6:15 AM	1	1	0	2	3	0	2	0	0
6:30 AM	3	2	0	4	5	0	1	2	0
6:45 AM	1	0	0	11	9	0	5	3	0
7:00 AM	5	1	0	7	10	0	1	1	0
7:15 AM	3	2	0	4	9	0	3	1	0
7:30 AM	3	2	0	9	9	0	4	4	0
7:45 AM	6	6	0	3	12	0	9	3	0
8:00 AM	2	7	0	13	11	0	8	4	0
8:15 AM	5	3	0	6	9	0	5	1	0
8:30 AM	4	5	0	6	4	0	18	3	0
8:45 AM	7	3	0	5	17	0	7	2	0
9:00 AM	6	4	0	14	5	0	9	3	0
9:15 AM	5	8	0	13	4	0	8	5	0
9:30 AM	3	12	0	12	11	0	12	7	0
9:45 AM	3	10	0	28	9	0	5	5	0
10:00 AM	9	13	0	24	8	0	10	5	0
10:15 AM	10	14	0	17	7	0	9	7	0
10:30 AM	8	19	0	21	3	0	8	4	0
10:45 AM	5	10	0	11	4	0	5	5	0
11:00 AM	4	7	0	13	14	0	7	5	0
11:15 AM	11	23	0	18	6	0	6	7	0
11:30 AM	4	13	0	12	7	0	11	6	0
11:45 AM	14	13	0	20	17	0	12	5	0
12:00 PM	5	15	1	22	6	0	8	4	0
12:15 PM	15	14	0	26	6	0	7	7	0
12:30 PM	16	12	0	21	15	0	6	10	0
12:45 PM	21	11	0	35	17	0	8	13	0
1:00 PM	6	17	0	38	20	0	6	12	0
1:15 PM	13	20	0	42	12	0	14	13	0
1:30 PM	16	28	0	28	21	0	10	3	0
1:45 PM	10	29	0	23	10	0	7	7	0
2:00 PM	21	26	0	28	10	0	9	12	0
2:15 PM	13	21	0	21	11	0	13	10	0
2:30 PM	16	30	0	35	12	0	10	8	0
2:45 PM	19	24	0	30	10	0	8	10	0
3:00 PM	15	26	0	28	8	0	10	10	0
3:15 PM	14	21	0	26	9	0	10	14	0
3:30 PM	15	29	0	30	10	0	12	12	0
3:45 PM	17	31	0	23	9	0	13	11	0
4:00 PM	11	24	0	30	12	0	24	14	0
4:15 PM	13	33	0	30	15	0	11	11	0
4:30 PM	13	22	0	23	13	0	17	16	0
4:45 PM	13	16	0	35	12	0	20	8	0
5:00 PM	12	24	0	28	20	0	27	15	0
5:15 PM	14	35	0	18	19	0	26	18	0
5:30 PM	7	27	0	23	10	0	13	11	0
5:45 PM	13	27	0	34	9	0	17	12	0

Study Name **Location 3 Presque Island Ave/River Park Cir & Hawley St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	River Park Cir Southbound				Hawley St Westbound				Presque Island Ave Northbound				Hawley St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	1	1	0	0	5	2	0	2	4	2	0	6	1	3	0
6:15 AM	2	1	0	0	0	1	0	0	3	3	1	0	7	0	4	0
6:30 AM	1	1	0	0	3	2	2	0	12	4	8	0	5	1	4	0
6:45 AM	1	0	1	0	3	1	1	0	5	4	8	0	3	5	3	0
7:00 AM	4	1	0	0	1	10	1	0	5	1	7	0	1	6	3	0
7:15 AM	2	3	0	0	3	7	1	0	4	4	2	0	5	4	5	0
7:30 AM	2	0	0	0	3	5	3	0	5	0	4	0	5	5	5	0
7:45 AM	0	3	0	0	2	9	4	0	11	12	13	0	7	5	11	0
8:00 AM	2	0	0	0	10	10	1	0	1	12	9	0	4	6	7	0
8:15 AM	0	1	0	0	3	8	3	0	1	6	4	0	4	6	3	0
8:30 AM	0	2	0	0	3	6	2	0	3	4	4	0	9	5	5	0
8:45 AM	0	0	0	0	1	8	8	0	7	2	8	0	10	3	2	0
9:00 AM	1	0	0	0	1	7	3	0	6	2	3	0	3	1	1	0
9:15 AM	0	0	0	0	1	8	6	0	5	2	6	0	5	5	1	0
9:30 AM	0	1	1	0	0	10	4	0	3	1	3	0	10	4	2	0
9:45 AM	4	1	0	0	1	7	3	0	6	3	11	0	9	8	0	0
10:00 AM	0	0	0	0	0	5	3	0	4	1	6	0	9	7	0	0
10:15 AM	1	1	0	0	0	1	3	0	1	2	4	0	8	6	1	0
10:30 AM	0	1	0	0	1	6	5	0	3	4	6	0	8	3	0	0
10:45 AM	1	3	0	0	1	5	2	0	6	0	5	0	2	7	0	0
11:00 AM	0	4	0	0	0	3	5	0	5	2	1	0	13	4	1	0
11:15 AM	2	9	3	0	1	6	12	0	7	1	5	0	6	1	2	0
11:30 AM	2	5	2	0	2	5	7	0	9	4	9	0	9	4	0	0
11:45 AM	5	5	4	0	0	2	7	0	14	1	13	0	12	7	0	0
12:00 PM	7	17	3	0	1	7	8	0	8	3	10	0	7	4	2	0
12:15 PM	3	4	2	0	2	5	6	0	7	7	7	0	4	6	4	0
12:30 PM	1	1	0	0	0	9	2	0	10	6	4	0	15	8	1	0
12:45 PM	0	3	0	0	5	8	20	0	9	4	15	0	14	6	5	0
1:00 PM	1	2	1	0	3	8	4	0	7	6	7	1	3	3	6	0
1:15 PM	1	3	0	0	2	10	7	0	3	7	4	0	4	9	1	0
1:30 PM	0	3	0	0	1	9	11	0	3	4	8	0	2	7	3	0
1:45 PM	2	3	2	0	1	6	5	0	8	5	9	0	10	7	3	0
2:00 PM	1	4	0	0	0	6	6	0	6	3	3	0	5	5	2	0
2:15 PM	5	7	2	0	1	9	9	0	8	0	6	0	4	5	0	0
2:30 PM	6	0	1	0	0	6	5	0	8	2	9	0	5	6	3	0
2:45 PM	2	0	1	0	0	14	6	0	6	1	10	0	9	5	2	0
3:00 PM	1	2	2	0	0	16	6	0	6	5	7	0	5	8	1	0
3:15 PM	1	3	0	0	1	9	3	0	4	2	8	0	7	4	0	0
3:30 PM	8	8	0	0	0	11	8	0	9	2	6	0	10	12	1	0
3:45 PM	5	7	1	0	0	12	12	0	8	1	9	0	13	7	1	1
4:00 PM	5	2	3	0	0	9	11	0	4	3	8	0	7	9	1	0
4:15 PM	3	4	1	0	0	8	9	0	6	0	9	0	3	8	0	0
4:30 PM	4	3	3	0	1	12	7	0	8	0	7	0	10	10	1	0
4:45 PM	7	6	3	0	0	13	5	0	9	2	7	0	10	8	4	0
5:00 PM	14	15	5	0	0	12	11	0	10	0	9	0	7	7	2	0
5:15 PM	5	5	4	0	0	12	10	0	5	2	8	0	8	11	0	0
5:30 PM	3	6	0	0	0	8	9	0	8	0	8	0	11	4	0	0
5:45 PM	1	3	0	0	0	9	9	0	3	1	5	0	13	6	1	0

Study Name **Location 3 Presque Island Ave/River Park Cir & Hawley St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	River Park Cir Southbound				Hawley St Westbound				Presque Island Ave Northbound				Hawley St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0
6:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	2	0	0	0	0	1	0	0	1	0	0
7:15 AM	1	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
8:15 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	2	1	0
8:30 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0
9:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	2	1	1	0
9:15 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
9:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:15 AM	0	1	0	0	0	2	0	0	0	1	1	0	0	0	1	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
11:15 AM	0	0	0	0	0	1	1	0	0	0	1	1	0	3	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	1	3	1	2	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:45 PM	0	0	1	0	0	0	0	0	0	1	0	0	2	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	1	0	1	0	2	0	1	0	0	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
3:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	1	0	0
4:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	3	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Study Name **Location 3 Presque Island Ave/River Park Cir & Hawley St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	River Park Cir Southbound				Hawley St Westbound				Presque Island Ave Northbound				Hawley St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 3 Presque Island Ave/River Park Cir & Hav**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	River Park Cir Crossing North Leg	Hawley St Crossing East Leg	Presque Island Ave Crossing South Leg	Hawley St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	1	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	1	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	2	1	1	0
11:15 AM	3	1	0	0
11:30 AM	1	2	1	0
11:45 AM	0	1	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	2	0	1	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	4	0	1	0
2:15 PM	2	0	0	0
2:30 PM	0	0	0	0
2:45 PM	1	0	0	0
3:00 PM	1	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	1	0
4:45 PM	2	0	0	0
5:00 PM	0	0	1	0
5:15 PM	0	0	0	0
5:30 PM	1	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 3 Presque Island Ave/River Park Cir & Hawley St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	River Park Cir Southbound				Hawley St Westbound				Presque Island Ave Northbound				Hawley St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	2	1	0	0	5	2	0	2	4	2	0	6	1	3	0
6:15 AM	2	2	0	0	0	1	0	0	3	3	1	0	7	0	4	0
6:30 AM	1	4	0	0	3	2	2	0	12	5	9	0	5	1	4	0
6:45 AM	2	0	1	0	3	1	2	0	5	4	8	0	3	5	3	0
7:00 AM	4	2	0	0	1	12	1	0	5	1	8	0	1	7	3	0
7:15 AM	3	4	0	0	3	8	1	0	4	5	2	0	6	5	5	0
7:30 AM	2	0	0	0	3	5	3	0	5	0	5	0	5	6	5	0
7:45 AM	0	4	0	0	2	9	4	0	11	12	14	0	7	5	11	0
8:00 AM	2	0	0	0	10	10	1	0	1	12	10	0	4	7	7	0
8:15 AM	0	1	0	0	3	10	3	0	2	6	4	0	4	8	4	0
8:30 AM	0	2	0	0	3	6	2	0	4	4	6	0	9	5	5	0
8:45 AM	0	0	0	0	1	9	8	0	7	3	9	0	10	3	2	0
9:00 AM	2	0	0	1	1	7	3	0	6	2	3	0	5	2	2	0
9:15 AM	0	0	0	0	1	8	7	0	5	2	7	0	5	5	1	0
9:30 AM	1	1	1	0	0	10	4	0	3	1	3	0	10	4	2	0
9:45 AM	4	2	0	0	1	8	3	0	6	3	12	0	9	8	0	0
10:00 AM	0	0	0	0	0	5	3	0	4	1	6	0	10	7	0	0
10:15 AM	1	2	0	0	0	4	3	0	1	3	5	0	8	6	2	0
10:30 AM	0	1	0	0	1	6	5	0	3	4	7	0	8	4	0	0
10:45 AM	1	3	0	0	1	5	3	0	6	0	6	0	3	7	0	0
11:00 AM	0	4	0	0	0	3	5	0	5	2	2	0	13	5	1	0
11:15 AM	2	9	3	0	1	7	13	0	7	1	6	1	6	4	2	0
11:30 AM	2	5	2	0	2	6	7	0	9	5	12	1	11	4	0	0
11:45 AM	5	5	4	0	0	2	7	0	14	1	14	0	12	7	0	0
12:00 PM	7	17	3	0	1	7	8	0	8	3	10	0	7	4	2	0
12:15 PM	3	4	2	0	2	5	6	0	7	7	9	0	4	7	4	0
12:30 PM	1	1	0	0	0	9	2	0	10	6	4	0	15	9	1	0
12:45 PM	0	3	0	0	5	8	20	0	10	4	16	0	15	7	5	0
1:00 PM	1	2	1	0	3	8	4	0	7	7	7	1	3	3	6	0
1:15 PM	1	3	0	0	2	10	8	0	3	7	5	0	5	9	1	0
1:30 PM	0	3	0	0	1	9	11	0	4	4	9	0	2	7	3	0
1:45 PM	2	3	3	0	1	8	5	0	8	6	10	0	12	7	3	0
2:00 PM	1	4	0	0	0	6	7	0	7	3	4	0	5	5	2	0
2:15 PM	5	7	2	0	1	10	10	0	9	0	8	0	5	5	1	0
2:30 PM	6	0	1	0	0	7	5	0	8	2	9	0	5	6	3	0
2:45 PM	2	0	1	0	1	15	6	0	6	2	10	0	9	5	2	0
3:00 PM	1	2	2	0	0	16	6	0	6	6	7	0	7	8	1	0
3:15 PM	1	3	0	0	1	9	3	0	5	2	9	0	7	4	0	0
3:30 PM	9	8	0	0	0	11	8	0	9	2	6	0	10	12	2	0
3:45 PM	5	7	1	0	0	13	12	0	8	1	11	0	13	8	1	1
4:00 PM	5	2	3	0	0	11	11	0	5	3	9	0	7	10	1	0
4:15 PM	3	4	1	0	0	8	9	0	6	0	10	0	3	8	0	0
4:30 PM	4	3	3	0	2	13	7	0	8	0	8	0	10	10	1	0
4:45 PM	7	6	3	0	1	13	5	0	10	2	8	0	12	8	4	0
5:00 PM	14	15	5	0	0	12	12	0	13	0	10	0	7	7	2	0
5:15 PM	5	5	4	0	0	13	11	0	5	2	8	0	8	12	0	0
5:30 PM	3	6	0	0	0	8	9	0	9	0	8	0	12	4	0	0
5:45 PM	1	3	0	0	0	9	9	0	3	1	6	0	13	6	1	0

Study Name **Location 4 Sugar Loaf Ave & Big Bay Rd/Hawley St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Hawley St Westbound			Sugar Loaf Ave Northbound			Big Bay Rd Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	8	4	0	4	12	0	17	7	0
6:15 AM	4	4	0	5	28	0	12	4	0
6:30 AM	14	1	0	16	29	0	10	5	0
6:45 AM	15	3	0	9	33	0	23	3	0
7:00 AM	24	6	0	2	38	0	16	7	0
7:15 AM	11	8	0	12	22	0	24	8	0
7:30 AM	11	11	0	11	13	0	19	15	0
7:45 AM	4	6	0	23	11	0	15	5	0
8:00 AM	10	2	0	7	16	0	13	12	0
8:15 AM	2	14	0	9	8	0	16	6	0
8:30 AM	6	10	0	11	10	0	15	8	0
8:45 AM	1	16	0	13	13	0	8	7	0
9:00 AM	9	3	0	6	16	0	11	15	0
9:15 AM	4	11	0	7	15	0	6	9	0
9:30 AM	7	6	0	12	12	0	20	7	0
9:45 AM	6	11	0	10	12	0	15	9	0
10:00 AM	15	10	0	5	13	0	14	18	0
10:15 AM	10	11	0	8	11	0	16	17	0
10:30 AM	6	6	0	3	15	0	13	7	0
10:45 AM	14	10	0	10	19	0	17	5	0
11:00 AM	6	11	0	7	14	0	18	12	0
11:15 AM	12	10	0	7	12	0	22	12	0
11:30 AM	11	14	0	9	14	0	15	13	0
11:45 AM	13	32	0	15	20	0	16	12	0
12:00 PM	13	18	0	14	18	0	12	8	0
12:15 PM	12	18	0	17	12	0	11	12	0
12:30 PM	17	15	0	13	14	0	20	13	0
12:45 PM	16	21	0	18	24	0	16	9	0
1:00 PM	15	11	0	20	27	0	22	12	0
1:15 PM	15	16	0	14	20	0	11	10	0
1:30 PM	10	21	0	8	22	0	18	16	0
1:45 PM	14	16	0	11	18	0	19	12	0
2:00 PM	15	20	0	7	30	0	20	6	0
2:15 PM	16	23	0	10	32	0	12	14	0
2:30 PM	8	15	0	6	36	0	34	11	0
2:45 PM	14	24	0	12	32	0	12	17	0
3:00 PM	16	28	0	10	27	0	19	12	0
3:15 PM	16	19	0	9	27	0	22	10	0
3:30 PM	21	21	0	13	29	0	25	14	0
3:45 PM	8	23	0	10	22	0	37	31	0
4:00 PM	24	18	0	10	18	0	37	18	0
4:15 PM	8	18	0	5	37	0	26	11	0
4:30 PM	14	27	0	19	28	0	28	19	0
4:45 PM	19	21	0	21	32	0	24	14	0
5:00 PM	30	34	0	24	35	0	27	22	0
5:15 PM	25	26	0	17	34	0	31	29	0
5:30 PM	24	22	0	13	30	0	28	13	0
5:45 PM	18	11	0	18	41	0	41	19	0

Study Name **Location 4 Sugar Loaf Ave & Big Bay Rd/Hawley St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Hawley St Westbound			Sugar Loaf Ave Northbound			Big Bay Rd Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	0	0	0	0	1	0	0	0	0
6:15 AM	1	0	0	0	3	0	0	0	0
6:30 AM	0	0	0	0	1	0	0	0	0
6:45 AM	0	0	0	0	1	0	0	0	0
7:00 AM	0	0	0	0	1	0	3	0	0
7:15 AM	0	0	0	0	0	0	1	0	0
7:30 AM	1	1	0	1	0	0	0	1	0
7:45 AM	1	0	0	1	0	0	1	0	0
8:00 AM	0	1	0	1	3	0	1	0	0
8:15 AM	0	0	0	1	2	0	2	0	0
8:30 AM	1	0	0	2	1	0	0	0	0
8:45 AM	0	0	0	1	0	0	1	1	0
9:00 AM	0	0	0	1	2	0	0	0	0
9:15 AM	0	0	0	1	1	0	1	0	0
9:30 AM	1	0	0	1	1	0	0	0	0
9:45 AM	0	1	0	1	1	0	1	0	0
10:00 AM	0	1	0	1	2	0	1	0	0
10:15 AM	1	0	0	2	0	0	0	1	0
10:30 AM	0	0	0	1	0	0	0	0	0
10:45 AM	1	0	0	1	1	0	3	0	0
11:00 AM	0	1	0	1	2	0	1	0	0
11:15 AM	1	0	0	1	2	0	1	0	0
11:30 AM	0	0	0	2	3	0	1	1	0
11:45 AM	3	0	0	1	1	0	3	0	0
12:00 PM	0	0	0	1	1	0	2	0	0
12:15 PM	1	0	0	2	2	0	2	0	0
12:30 PM	0	0	0	1	4	0	0	0	0
12:45 PM	0	0	0	1	2	0	3	0	0
1:00 PM	2	1	0	1	0	0	1	0	0
1:15 PM	1	0	0	1	0	0	1	0	0
1:30 PM	0	1	0	1	2	0	2	0	0
1:45 PM	1	0	0	2	0	0	1	0	0
2:00 PM	0	0	0	1	2	0	1	1	0
2:15 PM	0	0	0	2	0	0	0	0	0
2:30 PM	2	0	0	1	1	0	0	0	0
2:45 PM	1	0	0	1	1	0	5	0	0
3:00 PM	0	0	0	1	0	0	1	0	0
3:15 PM	0	0	0	1	2	0	3	3	0
3:30 PM	1	1	0	1	0	0	0	1	0
3:45 PM	1	2	0	1	2	0	3	1	0
4:00 PM	1	0	0	2	1	0	1	1	0
4:15 PM	0	2	0	2	1	0	1	1	0
4:30 PM	0	1	0	1	0	0	2	0	0
4:45 PM	0	1	0	1	2	0	1	0	0
5:00 PM	0	0	0	3	0	0	1	1	0
5:15 PM	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	1	1	0	1	1	0

	Hawley St Westbound			Sugar Loaf Ave Northbound			Big Bay Rd Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
	22	14	0	50	53	0	55	14	0
East Leg	72								
West Leg	67								
North Leg									
South Leg	69								

Location 4.xls

Study Name **Location 4 Sugar Loaf Ave & Big Bay Rd/Hawley St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Hawley St Westbound			Sugar Loaf Ave Northbound			Big Bay Rd Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	0	0	0	0	1	0	1	0	0
6:15 AM	1	0	0	0	3	0	2	0	0
6:30 AM	0	0	0	0	0	0	2	0	0
6:45 AM	1	0	0	0	1	0	1	0	0
7:00 AM	1	0	0	0	2	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0
7:30 AM	1	0	0	0	3	0	0	0	0
7:45 AM	0	0	0	0	3	0	2	1	0
8:00 AM	2	0	0	0	5	0	1	0	0
8:15 AM	0	0	0	0	9	0	3	0	0
8:30 AM	0	0	0	1	3	0	4	1	0
8:45 AM	0	1	0	0	1	0	4	0	0
9:00 AM	0	0	0	0	5	0	2	0	0
9:15 AM	1	0	0	0	4	0	3	1	0
9:30 AM	0	0	0	0	3	0	3	1	0
9:45 AM	0	0	0	0	6	0	2	0	0
10:00 AM	1	0	0	0	2	0	7	0	0
10:15 AM	1	0	0	0	2	0	5	0	0
10:30 AM	0	0	0	0	7	0	3	0	0
10:45 AM	0	0	0	0	5	0	4	1	0
11:00 AM	0	0	0	0	2	0	5	1	0
11:15 AM	0	0	0	0	5	0	0	0	0
11:30 AM	1	0	0	0	3	0	4	0	0
11:45 AM	0	0	0	0	6	0	5	1	0
12:00 PM	0	0	0	0	7	0	5	0	0
12:15 PM	0	0	0	0	4	0	3	0	0
12:30 PM	0	0	0	0	1	0	4	0	0
12:45 PM	1	0	0	0	2	0	5	0	0
1:00 PM	2	0	0	0	3	0	4	0	0
1:15 PM	0	0	0	0	5	0	3	1	0
1:30 PM	0	0	0	0	0	0	8	0	0
1:45 PM	0	0	0	0	3	0	5	0	0
2:00 PM	0	2	0	1	3	0	3	0	0
2:15 PM	0	1	0	0	3	0	4	1	0
2:30 PM	1	0	0	0	2	0	4	0	0
2:45 PM	0	0	0	1	6	0	3	0	0
3:00 PM	0	0	0	0	7	0	4	2	0
3:15 PM	0	0	0	0	7	0	4	0	0
3:30 PM	0	0	0	0	3	0	5	1	0
3:45 PM	0	0	0	1	4	0	8	1	0
4:00 PM	0	0	0	0	4	0	4	0	0
4:15 PM	1	0	0	0	3	0	3	0	0
4:30 PM	0	0	0	0	5	0	5	1	0
4:45 PM	0	0	0	0	0	0	5	0	0
5:00 PM	0	0	0	0	1	0	3	0	0
5:15 PM	0	0	0	0	1	0	7	1	0
5:30 PM	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	1	0	2	0	0

Study Name **Location 4 Sugar Loaf Ave & Big Bay**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Hawley St Crossing East Leg	Sugar Loaf Ave Crossing South Leg	Big Bay Rd Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0

Study Name **Location 4 Sugar Loaf Ave & Big Bay**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Hawley St Crossing East Leg	Sugar Loaf Ave Crossing South Leg	Big Bay Rd Crossing West Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0

Study Name **Location 4 Sugar Loaf Ave & Big Bay Rd/Hawley St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Hawley St Westbound			Sugar Loaf Ave Northbound			Big Bay Rd Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	8	4	0	4	14	0	18	7	0
6:15 AM	6	4	0	5	34	0	14	4	0
6:30 AM	14	1	0	16	30	0	12	5	0
6:45 AM	16	3	0	9	35	0	24	3	0
7:00 AM	25	6	0	2	41	0	19	7	0
7:15 AM	11	8	0	12	23	0	25	8	0
7:30 AM	13	12	0	12	16	0	19	16	0
7:45 AM	5	6	0	24	14	0	18	6	0
8:00 AM	12	3	0	8	24	0	15	12	0
8:15 AM	2	14	0	10	19	0	21	6	0
8:30 AM	7	10	0	14	14	0	19	9	0
8:45 AM	1	17	0	14	14	0	13	8	0
9:00 AM	9	3	0	7	23	0	13	15	0
9:15 AM	5	11	0	8	20	0	10	10	0
9:30 AM	8	6	0	13	16	0	23	8	0
9:45 AM	6	12	0	11	19	0	18	9	0
10:00 AM	16	11	0	6	17	0	22	18	0
10:15 AM	12	11	0	10	13	0	21	18	0
10:30 AM	6	6	0	4	22	0	16	7	0
10:45 AM	15	10	0	11	25	0	24	6	0
11:00 AM	6	12	0	8	18	0	24	13	0
11:15 AM	13	10	0	8	19	0	23	12	0
11:30 AM	12	14	0	11	20	0	20	14	0
11:45 AM	16	32	0	16	27	0	24	13	0
12:00 PM	13	18	0	15	26	0	19	8	0
12:15 PM	13	18	0	19	18	0	16	12	0
12:30 PM	17	15	0	14	19	0	24	13	0
12:45 PM	17	21	0	19	28	0	24	9	0
1:00 PM	19	12	0	21	30	0	27	12	0
1:15 PM	16	16	0	15	25	0	15	11	0
1:30 PM	10	22	0	9	24	0	28	16	0
1:45 PM	15	16	0	13	21	0	25	12	0
2:00 PM	15	22	0	9	35	0	24	7	0
2:15 PM	16	24	0	12	35	0	16	15	0
2:30 PM	11	15	0	7	39	0	38	11	0
2:45 PM	15	24	0	14	39	0	20	17	0
3:00 PM	16	28	0	11	34	0	24	14	0
3:15 PM	16	19	0	10	36	0	29	13	0
3:30 PM	22	22	0	14	32	0	30	16	0
3:45 PM	9	25	0	12	28	0	48	33	0
4:00 PM	25	18	0	12	23	0	42	19	0
4:15 PM	9	20	0	7	41	0	30	12	0
4:30 PM	14	28	0	20	33	0	35	20	0
4:45 PM	19	22	0	22	34	0	30	14	0
5:00 PM	30	34	0	27	36	0	31	23	0
5:15 PM	25	26	0	17	35	0	39	30	0
5:30 PM	24	22	0	13	30	0	30	13	0
5:45 PM	18	11	0	19	43	0	44	20	0

Study Name **Location 5 Sugar Loaf Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Sugar Loaf Ave Southbound				Wright St Westbound				Sugar Loaf Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	11	1	2	0	1	15	0	0	1	3	2	0	4	22	26	0
6:15 AM	10	5	3	0	2	22	1	0	1	6	2	0	7	9	36	0
6:30 AM	9	8	0	0	11	23	2	0	3	4	2	0	24	13	56	0
6:45 AM	20	8	3	0	1	27	3	0	0	5	4	0	6	18	51	0
7:00 AM	31	3	3	0	3	38	1	0	0	8	3	0	15	17	40	0
7:15 AM	20	11	0	0	5	39	5	0	2	9	8	0	14	33	38	0
7:30 AM	28	7	3	0	13	69	7	0	1	18	4	0	31	32	57	0
7:45 AM	15	12	1	0	20	53	10	0	1	24	2	0	25	41	68	0
8:00 AM	24	15	3	0	3	40	7	0	2	5	7	0	12	31	23	0
8:15 AM	28	7	1	0	4	33	8	0	2	10	7	0	19	27	21	0
8:30 AM	32	11	7	0	12	48	6	0	2	14	12	0	26	53	35	0
8:45 AM	30	14	4	0	10	47	9	0	2	12	12	0	22	61	38	0
9:00 AM	10	9	3	0	3	34	4	0	4	2	3	0	13	44	18	0
9:15 AM	23	7	3	0	2	44	6	0	3	8	10	0	22	53	28	0
9:30 AM	34	21	12	0	10	71	13	0	3	10	13	0	28	69	26	0
9:45 AM	29	9	7	0	5	62	9	0	6	14	10	0	16	56	20	0
10:00 AM	20	10	3	0	5	51	3	0	3	2	8	0	16	44	24	0
10:15 AM	19	14	5	0	4	63	3	0	2	7	10	0	16	45	19	0
10:30 AM	24	13	6	0	10	45	12	0	4	8	14	0	13	51	31	0
10:45 AM	35	15	6	0	8	54	8	0	6	13	13	0	6	49	23	0
11:00 AM	34	11	4	0	7	71	3	0	2	7	11	0	18	57	21	0
11:15 AM	36	8	4	0	4	66	3	0	3	8	15	0	15	56	16	0
11:30 AM	34	13	21	0	11	66	9	0	10	22	21	0	28	78	33	0
11:45 AM	66	18	10	0	12	92	4	0	11	17	21	0	18	85	64	0
12:00 PM	38	4	12	0	7	72	5	0	5	9	20	0	17	49	36	0
12:15 PM	37	13	4	0	6	74	3	0	3	9	9	0	21	63	34	0
12:30 PM	29	24	10	0	12	81	7	0	6	8	16	0	21	93	38	0
12:45 PM	44	14	8	0	6	79	7	0	7	15	11	0	18	86	44	0
1:00 PM	32	12	3	0	9	79	4	0	7	7	12	0	9	99	42	0
1:15 PM	31	10	9	0	7	70	6	0	5	14	29	0	14	58	37	0
1:30 PM	49	13	13	0	6	88	16	0	7	15	29	0	17	74	42	0
1:45 PM	34	14	9	0	5	94	5	0	5	17	26	0	16	72	42	0
2:00 PM	47	12	8	0	7	64	3	0	3	8	20	0	12	63	33	0
2:15 PM	39	8	7	0	0	78	4	0	8	20	14	0	22	67	41	0
2:30 PM	35	11	7	0	12	87	5	0	8	15	18	0	14	90	40	0
2:45 PM	63	14	14	0	9	108	7	0	10	26	28	0	16	103	35	0
3:00 PM	47	8	10	0	8	71	12	0	8	7	22	0	14	78	33	0
3:15 PM	81	11	17	0	5	105	9	0	7	20	24	0	21	96	32	0
3:30 PM	45	14	7	0	9	89	14	0	13	14	30	0	22	92	31	0
3:45 PM	62	23	11	0	7	72	1	0	17	12	23	0	16	79	32	0
4:00 PM	48	15	11	0	2	77	6	0	5	17	25	0	12	91	34	0
4:15 PM	50	18	5	0	11	77	6	0	6	9	19	0	11	84	34	0
4:30 PM	51	19	7	0	5	91	6	0	13	10	27	0	15	108	46	0
4:45 PM	63	21	21	0	8	107	6	0	7	15	17	0	16	94	53	0
5:00 PM	76	10	15	0	7	97	4	0	7	20	30	0	17	94	48	0
5:15 PM	69	8	7	0	6	77	9	0	10	13	17	0	25	92	37	0
5:30 PM	44	11	4	0	7	95	9	0	4	14	23	0	12	97	42	0
5:45 PM	50	11	7	0	8	102	7	0	4	8	25	0	9	100	49	0

Study Name **Location 5 Sugar Loaf Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Sugar Loaf Ave Southbound				Wright St Westbound				Sugar Loaf Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0
6:45 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0
7:00 AM	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	4	1	0	0
7:30 AM	2	0	0	0	0	1	1	0	1	0	0	0	0	0	2	0
7:45 AM	1	1	0	0	0	0	2	0	0	1	0	0	0	1	2	0
8:00 AM	3	1	0	0	0	5	1	0	2	1	0	0	3	0	2	0
8:15 AM	1	1	0	0	0	0	1	0	0	0	0	0	0	1	3	0
8:30 AM	2	3	0	0	0	1	2	0	0	0	0	0	0	2	2	0
8:45 AM	1	1	0	0	0	2	1	0	0	0	1	0	0	1	2	0
9:00 AM	1	1	0	0	0	3	1	0	0	0	0	0	1	0	3	0
9:15 AM	1	2	0	0	0	0	0	0	0	1	0	0	1	1	2	0
9:30 AM	3	1	0	0	0	0	2	0	0	0	0	0	0	1	4	0
9:45 AM	1	3	0	0	0	0	1	0	0	1	1	0	0	0	3	0
10:00 AM	1	1	1	0	0	0	2	0	0	0	0	0	0	1	3	0
10:15 AM	5	2	1	0	0	2	1	0	0	0	1	0	0	0	1	0
10:30 AM	2	1	1	0	0	1	2	0	0	0	0	0	1	2	1	0
10:45 AM	3	2	0	0	0	3	1	0	0	0	0	0	0	3	2	0
11:00 AM	2	1	0	0	0	1	1	0	0	0	0	0	0	0	5	0
11:15 AM	1	1	0	0	0	1	1	0	0	0	0	0	0	3	1	0
11:30 AM	3	2	0	0	0	3	2	0	0	2	0	0	0	0	3	0
11:45 AM	4	1	0	0	1	0	2	0	0	0	0	0	0	0	4	0
12:00 PM	1	2	0	0	0	0	2	0	0	0	0	0	0	2	2	0
12:15 PM	2	1	0	0	1	5	1	0	0	0	0	0	1	2	5	0
12:30 PM	3	1	0	0	0	1	1	0	0	0	0	0	0	0	4	0
12:45 PM	4	2	0	0	0	1	1	0	0	0	1	0	1	0	3	0
1:00 PM	2	2	0	0	0	0	0	0	0	3	1	0	0	3	0	0
1:15 PM	4	2	0	0	0	0	1	0	0	2	0	0	1	1	2	0
1:30 PM	3	2	0	0	1	1	2	0	0	1	0	0	0	3	2	0
1:45 PM	1	2	1	0	0	1	1	0	0	0	1	0	0	0	2	0
2:00 PM	2	2	0	0	0	1	1	0	1	0	0	0	0	1	4	0
2:15 PM	2	1	0	0	1	0	2	0	0	1	0	0	2	4	1	0
2:30 PM	6	1	0	0	0	2	1	0	1	0	0	0	0	3	2	0
2:45 PM	3	2	0	0	0	3	2	0	0	0	1	0	0	4	1	0
3:00 PM	0	3	1	0	0	0	0	0	0	1	1	0	0	1	2	0
3:15 PM	3	2	0	0	0	0	1	0	0	2	1	0	0	0	2	0
3:30 PM	5	3	0	0	0	2	1	0	0	2	0	0	1	2	2	0
3:45 PM	1	4	0	0	2	3	1	0	0	1	0	0	0	1	2	0
4:00 PM	3	3	1	0	0	1	1	0	0	3	2	0	0	3	1	0
4:15 PM	4	3	0	0	0	1	3	0	0	2	0	0	0	1	4	0
4:30 PM	2	3	1	0	0	0	0	0	0	2	1	0	0	0	3	0
4:45 PM	2	3	0	0	0	1	2	0	0	3	0	0	0	1	1	0
5:00 PM	2	3	1	0	0	2	1	0	0	2	1	0	0	0	2	0
5:15 PM	1	1	0	0	0	2	0	0	1	1	1	0	0	1	0	0
5:30 PM	2	0	0	0	0	2	0	0	0	1	0	0	0	1	3	0
5:45 PM	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0

Study Name **Location 5 Sugar Loaf Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Sugar Loaf Ave Southbound				Wright St Westbound				Sugar Loaf Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0
6:15 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0
7:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
7:45 AM	3	0	1	0	0	0	0	0	0	0	1	0	0	0	5	0
8:00 AM	2	0	0	0	0	0	0	0	2	1	0	0	0	0	9	0
8:15 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
8:30 AM	3	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0
8:45 AM	5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:00 AM	2	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0
9:15 AM	4	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0
9:30 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:45 AM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
10:00 AM	5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
10:15 AM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
10:30 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0
10:45 AM	7	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0
11:00 AM	3	0	0	0	0	2	0	0	0	0	0	0	0	0	4	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
11:30 AM	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
11:45 AM	4	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0
12:00 PM	4	0	0	0	0	1	0	0	0	0	0	0	0	1	7	0
12:15 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:30 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
12:45 PM	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
1:00 PM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
1:15 PM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
1:30 PM	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
1:45 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
2:00 PM	5	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0
2:15 PM	3	0	0	0	1	0	0	0	0	0	0	0	1	0	4	0
2:30 PM	5	0	0	0	0	1	0	0	0	0	1	0	0	0	5	0
2:45 PM	5	0	0	0	0	0	0	0	0	0	1	0	0	1	5	0
3:00 PM	4	0	0	0	1	0	0	0	0	0	0	0	0	0	7	0
3:15 PM	7	1	0	0	0	1	0	0	0	0	1	0	0	0	4	0
3:30 PM	6	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
3:45 PM	6	0	0	0	0	1	0	0	1	0	0	0	0	0	3	0
4:00 PM	3	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0
4:15 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
4:30 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
4:45 PM	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	5	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
5:15 PM	2	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0
5:30 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 5 Sugar Loaf Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Sugar Loaf Ave Crossing North Leg	Wright St Crossing East leg	Sugar Loaf Ave Crossing South Leg	Wright St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	1	0	0	0
6:30 AM	0	0	0	1
6:45 AM	0	0	2	0
7:00 AM	0	0	0	0
7:15 AM	0	2	2	1
7:30 AM	1	0	0	7
7:45 AM	0	0	0	3
8:00 AM	2	0	0	4
8:15 AM	0	0	0	2
8:30 AM	2	0	1	13
8:45 AM	1	1	0	1
9:00 AM	3	1	1	3
9:15 AM	1	0	0	4
9:30 AM	4	2	0	9
9:45 AM	2	0	0	2
10:00 AM	1	0	0	5
10:15 AM	0	0	0	4
10:30 AM	2	5	4	5
10:45 AM	0	2	3	5
11:00 AM	0	0	2	2
11:15 AM	0	0	0	2
11:30 AM	2	0	0	7
11:45 AM	0	1	0	8
12:00 PM	0	0	2	6
12:15 PM	2	3	1	7
12:30 PM	0	0	0	2
12:45 PM	3	1	3	8
1:00 PM	3	0	0	6
1:15 PM	0	0	1	4
1:30 PM	0	2	2	7
1:45 PM	2	3	3	1
2:00 PM	0	4	5	5
2:15 PM	3	1	1	4
2:30 PM	1	3	4	5
2:45 PM	2	0	0	12
3:00 PM	0	1	2	7
3:15 PM	0	1	2	7
3:30 PM	6	1	0	12
3:45 PM	1	0	2	9
4:00 PM	0	0	1	3
4:15 PM	3	0	3	8
4:30 PM	0	1	3	7
4:45 PM	0	1	1	13
5:00 PM	5	2	6	10
5:15 PM	1	0	3	9
5:30 PM	4	1	3	7
5:45 PM	1	0	0	8

Study Name **Location 5 Sugar Loaf Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Sugar Loaf Ave Crossing North Leg	Wright St Crossing East leg	Sugar Loaf Ave Crossing South Leg	Wright St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	1	0	0	8
7:45 AM	2	0	0	2
8:00 AM	0	0	2	0
8:15 AM	0	0	0	3
8:30 AM	0	0	1	4
8:45 AM	1	0	1	3
9:00 AM	1	0	0	1
9:15 AM	1	0	0	2
9:30 AM	0	0	0	6
9:45 AM	0	0	0	3
10:00 AM	0	0	1	0
10:15 AM	0	0	1	1
10:30 AM	1	0	2	4
10:45 AM	1	0	1	6
11:00 AM	1	0	0	8
11:15 AM	0	0	0	3
11:30 AM	1	0	0	9
11:45 AM	2	0	0	9
12:00 PM	0	1	1	0
12:15 PM	1	0	0	3
12:30 PM	0	0	0	9
12:45 PM	0	0	0	4
1:00 PM	1	0	0	1
1:15 PM	1	0	0	0
1:30 PM	1	0	0	5
1:45 PM	1	0	0	8
2:00 PM	0	0	0	0
2:15 PM	0	0	0	1
2:30 PM	0	0	1	6
2:45 PM	0	1	2	6
3:00 PM	1	0	0	0
3:15 PM	1	0	0	4
3:30 PM	0	1	0	2
3:45 PM	0	2	0	0
4:00 PM	2	0	0	1
4:15 PM	0	0	0	4
4:30 PM	0	0	0	5
4:45 PM	2	0	0	10
5:00 PM	0	0	3	2
5:15 PM	1	0	3	6
5:30 PM	0	0	2	5
5:45 PM	0	0	1	2

Study Name **Location 5 Sugar Loaf Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Sugar Loaf Ave Southbound				Wright St Westbound				Sugar Loaf Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	12	1	2	0	2	16	0	0	1	3	2	0	4	24	28	0
6:15 AM	13	5	3	0	2	22	1	0	1	6	2	0	7	9	38	0
6:30 AM	11	8	0	0	11	24	2	0	3	4	2	0	24	15	57	0
6:45 AM	22	8	3	0	1	28	3	0	0	5	5	0	6	20	53	0
7:00 AM	32	4	3	0	3	38	1	0	0	8	5	0	15	17	43	0
7:15 AM	21	11	0	0	5	41	5	0	2	9	8	0	18	34	40	0
7:30 AM	30	7	3	0	13	70	8	0	2	18	4	0	32	32	61	0
7:45 AM	19	13	2	0	20	53	12	0	1	25	3	0	25	42	75	0
8:00 AM	29	16	3	0	3	45	8	0	2	7	7	0	15	31	34	0
8:15 AM	31	8	1	0	4	33	9	0	2	10	7	0	19	28	28	0
8:30 AM	37	14	7	0	12	49	8	0	2	15	12	0	26	55	39	0
8:45 AM	36	15	4	0	10	49	10	0	2	12	13	0	22	62	42	0
9:00 AM	13	10	3	0	3	37	5	0	4	2	4	0	14	44	26	0
9:15 AM	28	9	3	0	2	45	6	0	3	9	10	0	23	54	35	0
9:30 AM	39	22	12	0	10	71	15	0	3	10	13	0	28	70	32	0
9:45 AM	34	12	7	0	5	62	10	0	6	15	11	0	16	56	28	0
10:00 AM	26	11	4	0	5	51	5	0	3	2	8	0	16	45	29	0
10:15 AM	28	16	6	0	4	65	4	0	2	7	11	0	16	45	23	0
10:30 AM	29	14	7	0	10	46	14	0	4	8	14	0	14	54	39	0
10:45 AM	45	17	6	0	8	58	9	0	6	13	13	0	6	52	28	0
11:00 AM	39	12	4	0	7	74	4	0	2	7	11	0	18	57	30	0
11:15 AM	37	9	4	0	4	67	4	0	3	8	15	0	15	59	21	0
11:30 AM	42	15	21	0	11	69	11	0	10	24	21	0	28	78	41	0
11:45 AM	74	19	10	0	13	92	6	0	11	17	21	0	18	86	75	0
12:00 PM	43	6	12	0	7	73	7	0	5	9	20	0	17	52	45	0
12:15 PM	43	14	4	0	7	79	4	0	3	9	9	0	22	65	40	0
12:30 PM	36	25	10	0	12	82	8	0	6	8	16	0	21	95	43	0
12:45 PM	55	16	8	0	6	80	8	0	7	15	12	0	19	86	49	0
1:00 PM	37	14	3	0	9	79	4	0	7	10	13	0	9	102	48	0
1:15 PM	38	12	9	0	7	70	7	0	5	16	29	0	15	59	41	0
1:30 PM	59	15	13	0	7	89	18	0	7	16	29	0	17	77	46	0
1:45 PM	39	16	10	0	5	95	6	0	5	17	27	0	16	72	49	0
2:00 PM	54	15	8	0	7	65	4	0	4	8	20	0	12	64	41	0
2:15 PM	44	9	7	0	2	78	6	0	8	21	14	0	25	71	46	0
2:30 PM	46	12	7	0	12	90	6	0	9	15	19	0	14	93	47	0
2:45 PM	71	16	14	0	9	111	9	0	10	26	30	0	16	108	41	0
3:00 PM	51	11	11	0	9	71	12	0	8	8	23	0	14	79	42	0
3:15 PM	91	14	17	0	5	106	10	0	7	22	26	0	21	96	38	0
3:30 PM	56	17	7	0	9	91	15	0	13	16	30	0	23	94	38	0
3:45 PM	69	27	11	0	9	76	2	0	18	13	23	0	16	80	37	0
4:00 PM	54	18	12	0	2	78	7	0	5	20	28	0	12	94	41	0
4:15 PM	58	21	5	0	11	78	9	0	6	11	19	0	11	86	40	0
4:30 PM	57	22	8	0	5	91	6	0	13	12	28	0	15	108	52	0
4:45 PM	72	24	21	0	8	108	8	0	7	18	17	0	16	95	54	0
5:00 PM	83	13	16	0	7	100	5	0	7	22	31	0	17	94	51	0
5:15 PM	72	10	7	0	6	80	9	0	11	14	18	0	25	93	38	0
5:30 PM	50	11	4	0	7	97	9	0	4	15	23	0	12	98	46	0
5:45 PM	52	12	7	0	8	102	7	0	4	8	25	0	9	100	50	0

Study Name **Location 6 McClellan Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Cemetary Entrance Southbound				Wright St Westbound				McClellan Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	18	3	0	12	0	1	0	2	31	0	0
6:15 AM	0	0	0	0	0	22	6	0	12	0	0	0	0	42	0	0
6:30 AM	0	0	0	0	0	19	6	0	21	0	3	0	4	69	0	0
6:45 AM	0	0	0	0	0	26	9	0	23	0	2	0	7	79	0	0
7:00 AM	0	0	0	0	0	32	8	0	12	0	5	0	15	54	0	0
7:15 AM	0	0	0	0	0	41	21	0	17	0	5	0	10	67	1	0
7:30 AM	1	0	0	0	0	43	16	0	21	0	3	0	16	107	1	0
7:45 AM	1	0	0	0	0	45	23	0	22	1	4	0	17	145	0	0
8:00 AM	0	0	0	0	0	38	15	0	11	0	2	0	12	58	0	0
8:15 AM	0	0	0	0	0	50	18	0	11	0	7	0	7	63	0	0
8:30 AM	0	0	0	0	0	43	17	0	18	0	6	0	12	115	0	0
8:45 AM	0	0	0	0	0	58	15	0	19	0	3	0	19	120	1	0
9:00 AM	0	0	0	0	0	36	16	0	17	0	7	0	10	60	0	0
9:15 AM	0	1	0	0	0	36	14	0	12	0	4	0	12	63	0	0
9:30 AM	0	0	1	0	0	62	24	0	25	0	8	0	6	102	0	0
9:45 AM	0	0	0	0	0	69	13	0	14	0	7	0	13	86	1	0
10:00 AM	0	1	0	0	0	48	17	0	10	0	14	0	6	51	0	0
10:15 AM	0	0	0	0	0	57	16	0	13	0	7	0	8	66	1	0
10:30 AM	1	0	0	0	1	61	17	0	18	2	6	0	5	67	1	0
10:45 AM	0	1	0	0	0	74	18	0	21	0	10	0	11	61	1	0
11:00 AM	0	0	0	0	0	66	11	0	21	3	9	0	7	66	0	0
11:15 AM	0	1	0	0	0	61	21	0	18	0	10	0	7	54	0	0
11:30 AM	0	2	0	0	0	78	26	0	23	1	14	0	11	74	2	0
11:45 AM	0	0	1	0	0	102	25	0	33	0	17	0	3	91	1	0
12:00 PM	0	0	0	0	0	107	22	0	23	0	9	0	9	68	0	0
12:15 PM	0	0	0	0	0	81	22	0	26	0	7	0	16	77	1	0
12:30 PM	0	0	0	0	0	90	19	0	22	1	9	0	13	95	0	0
12:45 PM	1	0	0	0	0	91	17	0	22	0	10	0	14	95	1	0
1:00 PM	1	0	0	0	1	64	22	0	22	1	9	0	17	97	0	0
1:15 PM	1	0	0	0	0	74	15	0	12	0	10	0	10	76	1	0
1:30 PM	0	0	0	0	0	128	27	0	19	0	12	0	16	85	0	0
1:45 PM	0	0	0	0	0	125	19	0	19	1	7	0	11	100	1	0
2:00 PM	0	0	2	0	0	99	11	0	18	0	15	0	9	74	0	0
2:15 PM	0	0	0	0	1	98	20	0	21	0	13	0	11	92	0	0
2:30 PM	1	0	0	0	0	96	24	0	22	0	18	0	10	86	0	0
2:45 PM	0	1	0	0	1	122	32	0	31	0	26	0	11	95	0	0
3:00 PM	1	0	0	0	0	127	29	0	30	0	20	0	4	90	0	0
3:15 PM	0	1	0	0	0	121	23	0	30	0	16	0	16	98	0	0
3:30 PM	1	1	0	0	0	137	36	0	22	0	16	0	10	91	1	0
3:45 PM	3	0	0	0	0	118	24	0	30	0	20	0	12	99	0	0
4:00 PM	1	0	2	0	0	133	29	0	26	0	37	0	11	83	1	0
4:15 PM	0	0	0	0	0	101	26	0	25	2	17	0	10	81	0	0
4:30 PM	1	0	0	0	0	134	23	0	28	1	23	0	9	104	0	0
4:45 PM	0	1	0	0	1	133	27	0	27	0	13	0	6	93	0	0
5:00 PM	1	0	0	0	1	158	35	0	38	2	49	0	7	120	0	0
5:15 PM	1	1	0	0	1	116	31	0	25	1	18	0	9	121	0	0
5:30 PM	0	1	0	0	1	85	29	0	30	0	11	0	9	103	0	0
5:45 PM	0	0	1	0	0	127	34	0	21	2	6	0	4	118	0	0

Study Name **Location 6 McClellan Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Cemetary Entrance Southbound				Wright St Westbound				McClellan Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
6:30 AM	0	0	0	0	0	2	1	0	1	0	0	0	0	2	0	0
6:45 AM	0	0	0	0	0	3	1	0	1	0	0	0	0	1	0	0
7:00 AM	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	6	0	0	0	0	0	0	2	0	0
7:30 AM	0	0	0	0	0	1	2	0	2	0	0	0	1	3	0	0
7:45 AM	0	0	0	0	0	2	2	0	2	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	5	1	0	1	0	0	0	0	3	0	0
8:15 AM	0	0	0	0	0	3	2	0	0	0	0	0	0	6	0	0
8:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0
8:45 AM	0	0	0	0	0	3	2	0	0	0	0	0	0	6	0	0
9:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
9:15 AM	0	0	0	0	0	2	1	0	1	0	0	0	0	2	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
10:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	3	0	0
10:30 AM	0	0	0	0	0	6	1	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	4	2	0	3	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	2	0	0
11:15 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	7	0	0
11:30 AM	0	0	0	0	0	4	0	0	1	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	4	1	0	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	4	1	0	1	0	1	0	0	5	0	0
12:30 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0
12:45 PM	0	0	0	0	0	2	2	0	2	0	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	5	0	0
1:15 PM	0	0	0	0	0	1	2	0	0	0	0	0	0	3	0	0
1:30 PM	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	3	1	0	1	0	1	0	0	2	0	0
2:15 PM	0	0	0	0	0	0	3	0	2	0	0	0	0	2	0	0
2:30 PM	0	0	0	0	0	3	0	0	0	0	1	0	0	3	0	0
2:45 PM	0	0	0	0	0	1	5	0	1	0	1	0	0	0	0	0
3:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	0	0	0	0	7	1	0	0	0	0	0	0	3	0	0
3:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0
3:45 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	6	0	0
4:00 PM	0	0	0	0	0	3	0	0	1	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	3	1	0	1	0	0	0	0	2	0	0
4:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0
4:45 PM	0	0	0	0	0	3	1	0	0	0	0	0	0	2	0	0
5:00 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0
5:45 PM	0	0	0	0	0	3	2	0	1	0	0	0	0	2	0	0

Study Name **Location 6 McClellan Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Cemetary Entrance Southbound				Wright St Westbound				McClellan Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
6:15 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0
7:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	1	0	0	4	0	0	0	0	2	0	0
8:15 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	8	0	0
8:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	4	0	0
8:45 AM	0	0	0	0	0	5	2	0	1	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	5	0	0
9:15 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	6	0	0
9:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
9:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0	0
10:00 AM	0	0	0	0	0	5	1	0	1	0	0	0	0	1	0	0
10:15 AM	0	0	0	0	0	5	1	0	0	0	0	0	0	4	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0	0
10:45 AM	0	0	0	0	0	6	3	0	0	0	0	0	0	5	0	0
11:00 AM	0	0	0	0	0	5	0	0	1	0	0	0	0	2	0	0
11:15 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	4	0	0
11:30 AM	0	0	0	0	0	3	1	0	3	0	0	0	0	1	0	0
11:45 AM	0	0	0	0	0	4	1	0	3	0	0	0	0	4	0	0
12:00 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	6	0	0
12:15 PM	0	0	0	0	0	4	1	0	0	0	0	0	0	3	0	0
12:30 PM	0	0	0	0	0	5	1	0	0	0	0	0	0	3	0	0
12:45 PM	0	0	0	0	0	4	2	0	1	0	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	3	1	0	0	0	0	0	0	2	0	0
1:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	5	0	0
1:30 PM	0	0	0	0	0	4	3	0	1	0	0	0	0	1	0	0
1:45 PM	0	0	0	0	0	5	1	0	1	0	0	0	0	3	0	0
2:00 PM	0	0	0	0	0	1	2	0	2	0	0	0	0	3	0	0
2:15 PM	0	0	0	0	0	4	0	0	0	0	1	0	0	2	0	0
2:30 PM	0	0	0	0	0	3	1	0	3	0	0	0	1	3	0	0
2:45 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	6	0	0
3:00 PM	0	0	0	0	0	5	2	0	3	0	0	0	0	4	0	0
3:15 PM	0	0	0	0	0	5	1	0	1	0	0	0	0	3	0	0
3:30 PM	0	0	0	0	0	4	1	0	1	0	0	0	1	4	0	0
3:45 PM	0	0	0	0	0	5	4	0	0	0	0	0	0	4	0	0
4:00 PM	0	0	0	0	0	2	1	0	1	0	0	0	0	5	0	0
4:15 PM	0	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	5	1	0	0	0	0	0	0	3	0	0
4:45 PM	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0
5:15 PM	0	0	0	0	0	4	2	0	1	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0

Study Name **Location 6 McClellan Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Cemetary Entrance Crossing North Leg	Wright St Crossing East Leg	McClellan Ave Crossing South Leg	Wright St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	1	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	3	0
8:30 AM	0	0	0	0
8:45 AM	0	0	2	0
9:00 AM	0	0	1	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	1	0
10:45 AM	0	0	2	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	1	0
11:45 AM	0	0	4	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	1	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	1	1	1	0
1:30 PM	0	0	0	0
1:45 PM	0	0	1	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	1	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	1	0
3:30 PM	0	0	0	0
3:45 PM	0	0	3	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	2	0
5:15 PM	0	0	1	0
5:30 PM	0	0	1	0
5:45 PM	0	0	5	0

Study Name **Location 6 McClellan Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Cemetary Entrance Crossing North Leg	Wright St Crossing East Leg	McClellan Ave Crossing South Leg	Wright St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	1	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	1	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	1	0
10:00 AM	0	0	0	0
10:15 AM	0	0	1	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	1	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	1	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	1	0

Study Name **Location 6 McClellan Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Cemetary Entrance Southbound				Wright St Westbound				McClellan Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	20	4	0	14	0	1	0	2	34	0	0
6:15 AM	0	0	0	0	0	25	7	0	13	0	0	0	1	42	0	0
6:30 AM	0	0	0	0	0	23	7	0	22	0	3	0	4	71	0	0
6:45 AM	0	0	0	0	0	31	11	0	25	0	2	0	7	81	0	0
7:00 AM	0	0	0	0	0	33	10	0	13	0	6	0	15	55	0	0
7:15 AM	0	0	0	0	0	42	27	0	17	0	5	0	10	69	1	0
7:30 AM	1	0	0	0	0	45	18	0	23	0	3	0	17	110	1	0
7:45 AM	1	0	0	0	0	48	25	0	25	1	4	0	17	147	0	0
8:00 AM	0	0	0	0	0	44	16	0	16	0	2	0	12	63	0	0
8:15 AM	0	0	0	0	0	55	21	0	11	0	7	0	7	77	0	0
8:30 AM	0	0	0	0	0	47	17	0	19	0	6	0	12	121	0	0
8:45 AM	0	0	0	0	0	66	19	0	20	0	3	0	19	126	1	0
9:00 AM	0	0	0	0	0	39	16	0	18	0	7	0	10	66	0	0
9:15 AM	0	1	0	0	0	42	15	0	13	0	4	0	12	71	0	0
9:30 AM	0	0	1	0	0	65	24	0	25	0	9	0	6	104	0	0
9:45 AM	0	0	0	0	0	71	15	0	14	0	7	0	13	92	1	0
10:00 AM	0	1	0	0	0	54	18	0	11	0	14	0	6	54	0	0
10:15 AM	0	0	0	0	0	63	18	0	13	0	7	0	8	73	1	0
10:30 AM	1	0	0	0	1	68	18	0	18	2	6	0	5	75	1	0
10:45 AM	0	1	0	0	0	84	23	0	24	0	10	0	11	66	1	0
11:00 AM	0	0	0	0	0	73	11	0	23	3	9	0	7	70	0	0
11:15 AM	0	1	0	0	0	65	22	0	19	0	10	0	7	65	0	0
11:30 AM	0	2	0	0	0	85	27	0	27	1	15	0	11	75	2	0
11:45 AM	0	0	1	0	0	110	27	0	36	0	17	0	3	96	1	0
12:00 PM	0	0	0	0	0	112	22	0	24	0	9	0	9	75	0	0
12:15 PM	0	0	0	0	0	89	24	0	27	0	8	0	16	85	1	0
12:30 PM	0	0	0	0	0	97	21	0	22	1	9	0	13	99	0	0
12:45 PM	1	0	0	0	0	97	21	0	25	0	10	0	14	99	1	0
1:00 PM	1	0	0	0	1	69	23	0	24	1	9	0	17	104	0	0
1:15 PM	1	0	0	0	0	76	18	0	12	0	10	0	10	84	1	0
1:30 PM	0	0	0	0	0	133	30	0	23	0	12	0	16	86	0	0
1:45 PM	0	0	0	0	0	130	24	0	21	1	7	0	11	103	1	0
2:00 PM	0	0	2	0	0	103	14	0	21	0	16	0	9	79	0	0
2:15 PM	0	0	0	0	1	102	23	0	23	0	14	0	11	96	0	0
2:30 PM	1	0	0	0	0	102	25	0	25	0	19	0	11	92	0	0
2:45 PM	0	1	0	0	1	127	37	0	32	0	27	0	11	101	0	0
3:00 PM	1	0	0	0	0	135	31	0	33	0	20	0	4	95	0	0
3:15 PM	0	1	0	0	0	133	25	0	31	0	16	0	16	104	0	0
3:30 PM	1	1	0	0	0	145	37	0	23	0	16	0	11	96	1	0
3:45 PM	3	0	0	0	0	128	28	0	30	0	20	0	12	109	0	0
4:00 PM	1	0	2	0	0	138	30	0	28	0	37	0	12	88	1	0
4:15 PM	0	0	0	0	0	106	28	0	27	2	17	0	10	84	0	0
4:30 PM	1	0	0	0	0	139	25	0	29	1	23	0	9	109	0	0
4:45 PM	0	1	0	0	1	139	30	0	27	0	13	0	6	95	0	0
5:00 PM	1	0	0	0	1	162	36	0	41	2	49	0	7	121	0	0
5:15 PM	1	1	0	0	1	122	34	0	26	1	18	0	9	122	0	0
5:30 PM	0	1	0	0	1	87	30	0	30	0	11	0	9	107	0	0
5:45 PM	0	0	1	0	0	132	37	0	23	2	6	0	4	121	0	0

Study Name **Location 7 McClellan Ave & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Fair Ave Westbound				McClellan Ave Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	0	0	0	1	2	2	0	2	16	2	0	1	3	0	0
6:15 AM	0	8	0	0	0	2	2	0	8	15	1	0	4	11	0	0
6:30 AM	0	7	0	0	1	4	2	0	14	30	3	0	4	13	0	0
6:45 AM	1	8	1	0	0	9	6	0	28	29	2	0	10	22	1	0
7:00 AM	0	11	6	0	4	7	9	0	83	19	5	0	4	40	1	0
7:15 AM	0	18	6	0	5	15	17	0	113	30	1	0	13	62	5	0
7:30 AM	1	20	2	0	0	3	10	0	38	63	6	0	21	27	5	0
7:45 AM	0	27	2	0	1	18	9	0	54	78	5	0	16	43	19	0
8:00 AM	2	15	4	0	0	8	9	0	28	34	7	0	13	18	1	0
8:15 AM	2	18	2	0	1	13	9	0	24	40	12	0	8	25	1	0
8:30 AM	0	30	2	0	1	12	9	0	30	52	9	0	13	36	1	0
8:45 AM	5	20	3	0	3	19	27	0	50	57	18	0	17	38	7	0
9:00 AM	0	22	5	0	3	18	23	0	29	37	7	0	11	19	3	0
9:15 AM	1	23	1	0	1	16	25	0	28	28	10	0	12	18	5	0
9:30 AM	1	41	1	0	3	23	24	0	29	59	11	0	12	25	0	0
9:45 AM	1	31	5	0	2	28	31	0	36	35	5	0	13	26	2	0
10:00 AM	4	25	2	0	4	13	25	0	28	26	7	0	10	9	1	0
10:15 AM	0	35	2	0	3	21	26	0	26	29	5	0	10	8	2	0
10:30 AM	2	24	3	0	2	19	25	0	33	43	6	0	9	21	1	0
10:45 AM	0	24	6	0	6	20	24	0	32	44	6	0	10	25	4	0
11:00 AM	3	29	3	0	4	18	35	0	31	38	11	0	4	9	3	0
11:15 AM	2	33	6	0	4	13	20	0	29	28	12	0	12	20	1	0
11:30 AM	2	44	7	0	3	22	42	0	32	44	12	0	14	25	0	0
11:45 AM	5	39	3	0	6	28	45	0	33	46	12	0	15	30	3	0
12:00 PM	4	46	6	0	2	44	41	0	26	34	9	0	7	20	0	0
12:15 PM	3	44	6	0	2	23	20	0	31	39	14	0	17	20	6	0
12:30 PM	2	28	4	0	4	22	25	0	39	46	10	0	18	30	3	0
12:45 PM	1	34	1	0	4	21	40	0	48	41	10	0	19	32	6	0
1:00 PM	2	42	3	0	4	30	25	0	21	46	18	0	14	17	1	0
1:15 PM	0	30	1	0	3	19	21	0	38	26	7	0	19	29	2	0
1:30 PM	2	33	2	0	5	23	21	0	35	40	12	0	11	21	3	0
1:45 PM	0	35	5	0	5	30	27	0	29	27	12	0	11	21	1	0
2:00 PM	1	33	4	0	5	22	32	0	31	47	2	0	9	29	3	0
2:15 PM	2	25	7	0	7	30	39	0	32	40	10	0	9	25	1	0
2:30 PM	5	36	3	0	16	39	57	0	40	35	16	0	7	35	5	0
2:45 PM	4	48	3	0	9	34	30	0	38	54	9	0	19	27	2	0
3:00 PM	4	40	4	0	7	24	33	0	34	48	18	0	4	21	1	0
3:15 PM	5	38	1	0	11	19	31	0	34	42	13	0	23	25	2	0
3:30 PM	6	53	8	0	8	36	55	0	29	44	10	0	21	26	0	0
3:45 PM	2	37	5	0	13	48	44	0	30	28	20	0	17	28	2	0
4:00 PM	6	59	5	0	9	50	46	0	29	39	20	0	18	22	2	0
4:15 PM	3	37	7	0	4	29	39	0	30	26	23	0	15	22	3	0
4:30 PM	9	38	1	0	8	41	56	0	21	43	19	0	24	24	3	0
4:45 PM	4	48	6	0	6	32	46	0	28	30	26	0	26	24	1	0
5:00 PM	7	66	6	0	18	61	53	0	23	44	15	0	18	33	2	0
5:15 PM	3	45	3	0	9	40	30	0	27	26	12	0	14	23	2	0
5:30 PM	3	42	3	0	5	24	24	0	45	35	14	0	11	22	1	0
5:45 PM	3	34	2	0	2	6	28	0	7	5	19	0	7	24	1	0

Location 7.xls

Study Name **Location 7 McClellan Ave & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Fair Ave Westbound				McClellan Ave Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
7:45 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
8:15 AM	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0
8:45 AM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	1	1	0	0	1	1	0	1	2	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	1	1	0	1	0	1	0	0	0	0	0	1	0	0	0
10:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
10:30 AM	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	1	0	0	0	1	0	0	4	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	2	0	0	1	1	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	1	0	0	1	2	0	0	0	1	0	0
11:45 AM	0	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	1	0	1	0	0	1	0	0	2	1	0	0	0	0	0	0
12:30 PM	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	2	1	0	0	2	0	0	1	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	1	4	0	0	0	0	0	0
1:45 PM	0	1	2	0	0	1	1	0	1	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	1	1	0	1	2	0	0	0	0	0	0
2:45 PM	0	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0
3:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0
3:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	1	0	0	0	3	0	0	2	1	0	0
4:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	2	1	0	0	1	0	0	1	0	0	0	1	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 7 McClellan Ave & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Fair Ave Westbound				McClellan Ave Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	1	0	0	0	2	0	0	0	5	0	0	0	0	1	0	0
7:15 AM	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:45 AM	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	3	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	2	0	0	0	4	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	1	0	0	1	1	0	0	0	1	0	0
2:15 PM	0	3	0	0	0	2	1	0	0	1	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	0	0	0	3	0	0	0	1	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	1	0	0	3	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0
3:30 PM	0	2	1	0	0	0	0	0	0	1	0	0	0	1	0	0
3:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 7 McClellan Ave & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Fair Ave Crossing East Leg	McClellan Ave Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	2	0
6:30 AM	1	0	0	1
6:45 AM	0	0	0	0
7:00 AM	0	0	3	0
7:15 AM	0	0	1	0
7:30 AM	0	0	0	0
7:45 AM	0	0	1	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	2	1
8:45 AM	0	1	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	1	0	0
10:00 AM	0	1	0	0
10:15 AM	0	0	0	0
10:30 AM	0	1	0	0
10:45 AM	0	2	2	0
11:00 AM	0	0	1	0
11:15 AM	0	0	0	0
11:30 AM	0	0	1	0
11:45 AM	0	1	0	0
12:00 PM	0	1	0	0
12:15 PM	1	0	2	0
12:30 PM	0	1	0	0
12:45 PM	0	1	2	0
1:00 PM	0	1	2	0
1:15 PM	0	1	0	0
1:30 PM	0	0	2	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	3	4	0
2:30 PM	0	1	5	0
2:45 PM	0	0	3	0
3:00 PM	0	0	0	0
3:15 PM	0	0	1	0
3:30 PM	0	0	1	0
3:45 PM	0	0	0	0
4:00 PM	0	2	1	0
4:15 PM	0	0	0	0
4:30 PM	0	0	4	0
4:45 PM	0	0	1	0
5:00 PM	1	3	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	1	0

Study Name **Location 7 McClellan Ave & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Fair Ave Crossing East Leg	McClellan Ave Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	1	0
7:00 AM	0	0	2	0
7:15 AM	0	0	0	0
7:30 AM	1	0	0	0
7:45 AM	1	0	1	0
8:00 AM	2	0	0	0
8:15 AM	0	1	0	0
8:30 AM	0	1	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	2	0
9:15 AM	0	0	1	0
9:30 AM	0	0	1	0
9:45 AM	0	0	1	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	2	0	0
11:00 AM	0	0	0	0
11:15 AM	0	2	0	0
11:30 AM	0	0	1	0
11:45 AM	0	0	1	0
12:00 PM	0	1	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	1	0	0
1:00 PM	0	0	2	0
1:15 PM	0	1	0	0
1:30 PM	0	2	1	0
1:45 PM	0	1	2	0
2:00 PM	0	0	1	0
2:15 PM	0	2	4	0
2:30 PM	0	0	1	0
2:45 PM	0	1	1	0
3:00 PM	0	0	1	0
3:15 PM	0	0	2	0
3:30 PM	0	0	1	0
3:45 PM	0	0	3	0
4:00 PM	0	0	3	0
4:15 PM	0	2	0	0
4:30 PM	1	3	0	0
4:45 PM	0	0	1	0
5:00 PM	0	0	3	0
5:15 PM	0	0	1	0
5:30 PM	0	1	2	0
5:45 PM	0	0	1	0

Study Name **Location 7 McClellan Ave & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Fair Ave Westbound				McClellan Ave Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	1	0	0	1	2	2	0	2	17	2	0	1	3	0	0
6:15 AM	0	9	0	0	0	2	2	0	8	16	1	0	4	11	0	0
6:30 AM	0	7	0	0	1	4	2	0	15	31	3	0	4	13	0	0
6:45 AM	1	10	1	0	0	10	6	0	28	31	2	0	10	22	2	0
7:00 AM	1	12	6	0	6	7	9	0	88	19	5	0	4	41	1	0
7:15 AM	0	23	7	0	5	16	17	0	114	30	1	0	13	62	5	0
7:30 AM	1	23	2	0	0	3	10	0	38	65	6	0	21	28	5	0
7:45 AM	0	28	2	0	1	19	9	0	54	81	5	0	16	43	19	0
8:00 AM	2	16	4	0	0	8	9	0	29	39	7	0	13	18	1	0
8:15 AM	2	20	3	0	1	13	9	0	25	40	12	0	8	25	1	0
8:30 AM	0	30	2	0	1	13	9	0	30	53	9	0	13	38	2	0
8:45 AM	5	23	4	0	3	21	27	0	50	58	18	0	17	38	7	0
9:00 AM	0	22	6	0	3	18	23	0	29	38	7	0	11	19	3	0
9:15 AM	1	24	2	0	1	18	26	0	29	30	10	0	13	21	5	0
9:30 AM	1	41	1	0	3	23	24	0	29	59	11	0	12	26	0	0
9:45 AM	1	32	6	0	3	28	32	0	36	35	5	0	14	26	2	0
10:00 AM	4	26	2	0	4	14	25	0	28	28	7	0	10	9	1	0
10:15 AM	0	36	2	0	3	22	27	0	26	29	5	0	10	9	2	0
10:30 AM	2	25	4	0	2	20	25	0	33	44	6	0	9	21	1	0
10:45 AM	0	27	7	0	6	20	25	0	32	48	6	0	10	25	4	0
11:00 AM	3	30	3	0	4	20	35	0	32	40	11	0	4	10	3	0
11:15 AM	2	33	6	0	4	16	21	0	30	29	12	0	12	21	1	0
11:30 AM	2	45	7	0	3	23	42	0	33	48	12	0	14	26	0	0
11:45 AM	5	41	4	0	6	31	45	0	33	50	12	0	15	31	3	0
12:00 PM	4	46	6	0	2	44	41	0	26	35	9	0	7	20	0	0
12:15 PM	4	44	7	0	2	24	20	0	33	40	14	0	17	20	6	0
12:30 PM	3	30	4	0	4	23	25	0	39	46	10	0	18	30	3	0
12:45 PM	1	36	1	0	4	22	40	0	48	44	10	0	20	35	6	0
1:00 PM	2	43	3	0	4	30	25	0	21	47	18	0	14	17	1	0
1:15 PM	0	33	2	0	3	21	21	0	39	26	7	0	19	29	2	0
1:30 PM	2	35	2	0	5	24	21	0	36	44	12	0	11	21	3	0
1:45 PM	0	38	7	0	5	31	28	0	30	28	12	0	11	21	1	0
2:00 PM	1	34	4	0	5	23	32	0	32	49	2	0	9	30	3	0
2:15 PM	2	29	7	0	7	32	40	0	33	43	10	0	9	25	1	0
2:30 PM	5	38	3	0	16	40	58	0	41	40	16	0	7	36	5	0
2:45 PM	4	48	4	0	9	35	30	0	38	56	9	0	19	27	2	0
3:00 PM	4	45	4	0	7	24	34	0	34	51	18	0	4	21	1	0
3:15 PM	5	38	2	0	11	20	31	0	34	43	14	0	25	25	2	0
3:30 PM	6	55	9	0	8	36	56	0	29	45	10	0	21	27	0	0
3:45 PM	2	40	6	0	13	50	44	0	30	28	20	0	17	28	2	0
4:00 PM	6	61	5	0	9	51	46	0	29	41	20	0	18	22	3	0
4:15 PM	3	38	8	0	4	30	39	0	30	29	23	0	17	23	3	0
4:30 PM	9	39	1	0	8	42	56	0	21	44	19	0	24	24	3	0
4:45 PM	4	51	7	0	6	33	46	0	29	30	26	0	27	25	1	0
5:00 PM	7	69	6	0	18	61	53	0	23	47	15	0	18	33	2	0
5:15 PM	3	47	4	0	9	42	30	0	27	27	12	0	14	23	2	0
5:30 PM	3	43	3	0	5	25	24	0	45	35	14	0	11	22	1	0
5:45 PM	3	35	2	0	2	6	28	0	7	6	19	0	7	24	1	0

Study Name **Location 8 McClellan Ave & Cleveland St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Cleveland Ave Westbound				McClellan Ave Northbound				Cleveland Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	5	0	0	0	0	3	0	1	18	0	0	0	0	0	0
6:15 AM	0	12	0	0	0	0	4	0	6	31	0	0	0	0	0	0
6:30 AM	0	25	0	0	2	0	10	0	10	44	0	0	2	0	0	0
6:45 AM	0	28	4	0	1	0	11	0	12	63	0	0	0	0	0	0
7:00 AM	0	28	2	0	4	0	8	0	9	131	0	0	1	0	0	0
7:15 AM	0	57	0	0	3	0	10	0	7	116	0	0	0	1	0	0
7:30 AM	0	53	0	0	1	0	11	0	12	116	0	0	2	1	2	0
7:45 AM	2	53	6	0	2	0	9	0	17	125	1	0	1	0	2	0
8:00 AM	0	44	2	0	1	0	9	0	4	67	0	0	1	2	0	0
8:15 AM	0	44	1	0	4	0	6	0	11	79	0	0	0	1	0	0
8:30 AM	0	60	6	0	3	0	3	0	14	94	0	0	1	0	0	0
8:45 AM	0	71	6	0	2	0	11	0	10	103	0	0	0	0	0	0
9:00 AM	0	57	2	0	0	0	7	0	8	73	0	0	0	0	0	0
9:15 AM	1	62	1	0	2	0	17	0	9	77	0	0	0	0	0	0
9:30 AM	0	89	1	0	4	0	20	0	15	95	0	0	0	0	0	0
9:45 AM	0	78	1	0	3	0	15	0	10	71	1	0	2	2	0	0
10:00 AM	1	63	3	0	1	0	9	0	9	64	0	0	2	1	0	0
10:15 AM	0	76	3	0	2	0	14	0	10	67	0	0	0	0	0	0
10:30 AM	0	63	1	0	2	0	14	0	12	91	1	0	1	0	0	0
10:45 AM	0	67	2	0	4	0	14	0	9	82	0	0	1	0	0	0
11:00 AM	1	64	3	0	1	0	11	0	6	78	0	0	0	1	0	0
11:15 AM	0	73	3	0	5	0	6	0	7	70	2	1	0	0	0	0
11:30 AM	0	87	8	0	3	0	4	0	12	94	0	0	0	0	0	0
11:45 AM	0	98	3	0	2	0	16	0	12	83	0	0	0	0	0	0
12:00 PM	1	100	3	0	3	1	20	0	22	65	1	0	0	0	0	0
12:15 PM	0	77	3	0	5	0	10	0	20	99	2	0	0	0	0	0
12:30 PM	0	74	4	0	1	0	14	0	19	98	0	0	0	0	0	0
12:45 PM	1	91	4	0	3	0	14	0	24	96	0	0	1	3	1	0
1:00 PM	0	84	2	0	0	0	9	0	14	82	0	0	0	0	0	0
1:15 PM	0	63	3	0	1	0	12	0	13	76	0	0	1	0	0	0
1:30 PM	0	72	1	0	2	0	9	0	20	81	0	0	1	0	0	0
1:45 PM	0	68	3	0	0	0	12	0	20	75	0	0	1	0	0	0
2:00 PM	0	88	2	0	4	2	13	0	18	79	1	0	0	0	0	0
2:15 PM	1	76	2	0	3	0	24	0	16	90	0	0	0	0	1	0
2:30 PM	0	100	0	0	4	0	29	0	12	97	0	0	2	0	0	0
2:45 PM	0	97	2	0	3	0	6	0	11	98	3	0	0	0	1	0
3:00 PM	0	87	2	0	1	1	18	0	17	108	0	0	1	0	0	0
3:15 PM	0	98	3	0	1	0	21	0	10	88	2	0	1	0	0	0
3:30 PM	0	125	5	0	4	1	35	0	12	92	1	0	1	0	0	0
3:45 PM	0	94	5	0	2	0	15	0	21	84	0	0	1	0	0	0
4:00 PM	1	116	2	0	3	0	20	0	13	89	3	0	0	0	1	0
4:15 PM	0	94	5	0	3	0	13	0	16	91	1	0	0	1	0	0
4:30 PM	0	115	4	0	2	4	17	0	18	78	1	0	0	1	1	0
4:45 PM	0	115	9	0	2	1	18	0	13	97	1	0	1	1	0	0
5:00 PM	1	155	3	0	5	1	25	0	12	89	2	0	0	2	0	0
5:15 PM	1	84	3	0	1	0	17	0	16	82	0	0	2	0	1	0
5:30 PM	1	81	6	0	2	0	12	0	11	90	0	0	3	0	0	0
5:45 PM	1	76	3	0	4	0	11	0	15	93	1	0	0	0	0	0

Study Name **Location 8 McClellan Ave & Cleveland St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Cleveland Ave Westbound				McClellan Ave Northbound				Cleveland Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:00 AM	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
9:15 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
9:45 AM	0	4	0	0	0	0	0	0	2	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	2	0	0	0	0	1	0	1	3	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	1	4	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	1	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0
1:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	1	0	2	2	0	0	0	0	0	0
3:00 PM	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0
5:00 PM	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 8 McClellan Ave & Cleveland St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Cleveland Ave Westbound				McClellan Ave Northbound				Cleveland Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
6:45 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0
7:15 AM	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:30 AM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	4	0	0	1	0	1	0	0	1	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	4	1	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0
5:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 8 McClellan Ave & Cleveland St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Cleveland Ave Crossing East Leg	McClellan Ave Crossing South Leg	Cleveland Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	1	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	1
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	1	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	1	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	1	1
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	1	0	1

Study Name **Location 8 McClellan Ave & Cleveland St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Cleveland Ave Crossing East Leg	McClellan Ave Crossing South Leg	Cleveland Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 8 McClellan Ave & Cleveland St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Cleveland Ave Westbound				McClellan Ave Northbound				Cleveland Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	0	0	0	0	3	0	1	19	0	0	0	0	0	0
6:15 AM	0	14	0	0	0	0	4	0	7	32	0	0	0	0	0	0
6:30 AM	0	25	0	0	2	0	10	0	10	47	0	0	2	0	0	0
6:45 AM	0	31	4	0	2	0	11	0	12	64	0	0	0	0	0	0
7:00 AM	0	29	2	0	4	0	8	0	9	136	0	0	1	0	0	0
7:15 AM	0	62	0	0	3	0	11	0	8	117	0	0	0	1	0	0
7:30 AM	0	56	0	0	1	0	11	0	13	119	0	0	2	1	2	0
7:45 AM	2	54	6	0	2	0	9	0	18	129	1	0	1	0	2	0
8:00 AM	0	46	2	0	1	1	9	0	4	72	0	0	1	2	0	0
8:15 AM	0	46	1	0	4	0	6	0	11	80	0	0	0	2	0	0
8:30 AM	0	60	6	0	3	0	4	0	16	95	0	0	1	0	0	0
8:45 AM	0	75	6	0	2	0	11	0	11	104	0	0	0	0	0	0
9:00 AM	0	58	2	0	0	0	7	0	11	74	0	0	0	0	0	0
9:15 AM	1	64	1	0	2	0	17	0	10	79	0	0	0	0	0	0
9:30 AM	0	89	1	0	4	0	21	0	16	95	0	0	0	0	0	0
9:45 AM	0	82	1	0	3	0	15	0	12	72	1	0	2	2	0	0
10:00 AM	1	64	3	0	1	0	10	0	10	65	0	0	2	1	0	0
10:15 AM	0	78	3	0	2	0	14	0	11	67	0	0	0	0	0	0
10:30 AM	0	64	1	0	2	0	14	0	12	92	1	0	1	0	0	0
10:45 AM	0	71	2	0	4	0	15	0	10	85	0	0	1	0	0	0
11:00 AM	1	64	3	0	1	0	11	0	7	81	0	0	0	1	0	0
11:15 AM	0	73	3	0	5	0	6	0	8	73	2	1	0	0	0	0
11:30 AM	0	89	8	0	3	0	4	0	13	101	0	0	0	0	0	0
11:45 AM	0	99	3	0	2	0	17	0	14	86	0	0	0	0	0	0
12:00 PM	1	100	3	0	3	1	20	0	23	65	1	0	0	0	0	0
12:15 PM	0	78	3	0	5	0	11	0	20	101	2	0	0	0	0	0
12:30 PM	0	76	4	0	1	0	14	0	20	99	0	0	0	0	0	0
12:45 PM	1	94	4	0	3	0	14	0	24	98	0	0	1	3	1	0
1:00 PM	1	86	2	0	0	0	9	0	16	83	0	0	0	1	0	0
1:15 PM	0	65	3	0	1	0	12	0	13	80	0	0	1	0	0	0
1:30 PM	0	75	1	0	2	0	9	0	21	84	0	0	1	0	0	0
1:45 PM	0	71	3	0	0	0	13	0	20	78	0	0	1	0	0	0
2:00 PM	0	89	2	0	4	2	13	0	19	83	1	0	0	0	0	0
2:15 PM	1	81	2	0	4	0	25	0	16	93	0	0	0	0	1	0
2:30 PM	0	102	0	0	4	0	29	0	12	101	0	0	2	0	0	0
2:45 PM	0	98	2	0	3	0	7	0	13	102	3	0	0	0	1	0
3:00 PM	0	92	2	0	1	1	18	0	18	110	0	0	1	0	0	0
3:15 PM	0	100	3	0	1	0	21	0	10	90	2	0	1	0	0	0
3:30 PM	0	128	5	0	4	1	35	0	13	93	1	0	1	0	0	0
3:45 PM	0	97	5	0	2	0	15	0	22	86	0	0	1	0	0	0
4:00 PM	1	118	2	0	3	0	21	0	14	92	3	0	0	0	1	0
4:15 PM	0	96	5	0	3	0	14	0	17	93	1	0	0	1	0	0
4:30 PM	1	117	4	0	2	4	17	0	20	78	1	0	0	1	1	0
4:45 PM	0	117	9	0	2	1	19	0	17	99	1	0	1	2	0	0
5:00 PM	1	158	3	0	5	1	25	0	15	91	2	0	0	2	0	0
5:15 PM	1	86	3	0	1	0	17	0	16	83	0	0	2	0	1	0
5:30 PM	1	82	6	0	2	0	12	0	12	92	0	0	3	0	0	0
5:45 PM	1	77	3	0	4	0	11	0	15	94	1	0	0	0	0	0

Study Name **Location 9 7th St & College Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				College Ave Westbound				7th St Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	1	0	1	3	0	0	8	1	1	0	1	4	1	0
6:15 AM	0	3	1	0	1	6	0	0	12	8	1	0	0	13	0	0
6:30 AM	0	4	4	0	2	5	1	0	23	17	2	0	2	22	0	0
6:45 AM	1	4	8	0	0	16	1	0	52	18	1	0	1	29	1	0
7:00 AM	3	5	4	0	6	45	5	0	11	19	24	0	3	31	1	0
7:15 AM	0	11	5	0	7	44	3	0	38	20	32	0	11	54	3	0
7:30 AM	0	10	9	0	7	21	8	0	23	51	9	0	12	21	1	0
7:45 AM	0	15	5	0	20	27	5	0	28	87	19	0	18	60	6	0
8:00 AM	0	7	2	0	2	21	4	0	27	49	12	0	11	23	3	0
8:15 AM	0	6	4	0	3	20	3	0	24	32	12	0	10	38	0	0
8:30 AM	1	12	6	0	9	18	5	0	12	52	16	0	7	29	1	0
8:45 AM	2	20	9	0	29	29	6	0	17	88	18	0	36	50	6	0
9:00 AM	1	22	7	0	4	17	3	0	17	28	22	0	9	31	2	0
9:15 AM	0	10	3	0	5	22	2	0	10	34	13	0	7	20	1	0
9:30 AM	0	16	11	0	16	30	5	0	10	56	18	0	4	36	2	0
9:45 AM	2	44	15	0	18	26	4	0	16	74	21	0	13	45	2	0
10:00 AM	3	16	10	0	6	19	7	0	13	20	16	0	9	29	1	0
10:15 AM	1	24	7	0	5	28	4	0	9	27	10	0	8	30	0	0
10:30 AM	4	16	14	0	9	31	5	0	6	33	15	0	6	25	2	0
10:45 AM	4	33	21	0	11	30	4	0	16	39	23	0	10	35	2	0
11:00 AM	4	21	11	0	5	30	5	0	9	19	21	0	5	38	0	0
11:15 AM	2	17	12	0	3	26	5	0	6	26	15	0	12	36	0	0
11:30 AM	2	40	19	0	17	28	9	0	15	47	17	0	11	36	3	0
11:45 AM	3	51	16	0	20	31	8	0	16	51	17	0	9	58	7	0
12:00 PM	3	22	15	0	6	38	8	0	16	22	18	0	16	71	1	0
12:15 PM	1	19	8	0	5	46	11	0	5	27	15	0	13	46	2	0
12:30 PM	0	26	14	0	8	54	11	0	18	37	23	0	15	55	3	0
12:45 PM	2	35	21	0	9	45	5	0	10	40	24	0	9	58	5	0
1:00 PM	4	30	7	0	8	28	9	0	11	26	17	0	10	41	1	0
1:15 PM	4	17	13	0	10	36	9	0	11	24	22	0	11	44	1	0
1:30 PM	4	28	18	0	9	46	5	0	14	38	15	0	11	46	1	0
1:45 PM	1	40	18	0	8	40	6	0	7	47	24	0	17	35	3	0
2:00 PM	4	17	13	0	6	48	7	0	5	24	18	0	8	43	4	0
2:15 PM	1	17	11	0	3	52	9	0	10	27	23	0	16	53	5	0
2:30 PM	2	27	17	0	12	49	14	0	18	34	30	0	27	60	2	0
2:45 PM	3	50	16	0	16	45	13	0	11	48	26	0	15	54	1	0
3:00 PM	3	25	15	0	11	56	19	0	7	31	32	0	16	45	4	0
3:15 PM	2	32	11	0	8	42	13	0	7	29	21	0	11	39	0	0
3:30 PM	5	48	20	0	13	58	20	0	12	35	28	0	25	33	3	0
3:45 PM	4	39	15	0	7	44	8	0	17	53	26	0	21	71	2	0
4:00 PM	3	47	11	0	13	56	17	0	4	46	25	0	20	39	0	0
4:15 PM	1	35	12	0	7	43	17	0	9	23	29	0	9	45	2	0
4:30 PM	4	41	19	0	10	41	18	0	11	30	28	0	14	54	2	0
4:45 PM	4	44	16	0	14	51	19	0	8	30	31	0	14	55	1	0
5:00 PM	7	66	14	0	11	59	21	0	6	41	24	0	25	55	2	0
5:15 PM	3	35	15	0	11	48	5	0	8	34	23	0	12	55	0	0
5:30 PM	0	35	9	0	13	33	5	0	12	21	30	0	16	49	0	0
5:45 PM	3	48	20	0	10	38	7	0	7	39	22	0	15	42	2	0

Study Name **Location 9 7th St & College Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				College Ave Westbound				7th St Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0
8:45 AM	1	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	1	2	0	0
9:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	0	2	0	1	1	0	0
10:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0
11:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0
11:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	2	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
12:00 PM	0	0	0	0	0	0	1	0	2	1	0	0	1	1	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
1:15 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	0
1:30 PM	0	0	0	0	1	1	0	0	0	1	0	0	0	2	0	0
1:45 PM	0	1	0	0	0	1	0	0	0	0	1	0	1	2	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	1	2	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0
4:00 PM	0	0	0	0	0	0	1	0	0	4	0	0	1	2	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0

Study Name **Location 9 7th St & College Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				College Ave Westbound				7th St Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	3	0	0	0	0	2	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0
2:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	1	1	0	0
2:30 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	1	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 9 7th St & College Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	College Ave Crossing East Leg	7th Ave Crossing South Leg	College Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	1	1
6:45 AM	1	0	0	0
7:00 AM	1	0	2	0
7:15 AM	0	0	1	0
7:30 AM	0	1	0	0
7:45 AM	1	1	1	1
8:00 AM	0	0	1	1
8:15 AM	0	1	1	1
8:30 AM	0	9	1	0
8:45 AM	0	4	1	2
9:00 AM	0	6	1	1
9:15 AM	0	1	0	0
9:30 AM	0	2	1	0
9:45 AM	0	6	0	2
10:00 AM	1	2	0	0
10:15 AM	0	1	0	1
10:30 AM	1	2	1	1
10:45 AM	0	4	0	0
11:00 AM	0	0	0	0
11:15 AM	0	2	0	0
11:30 AM	1	2	0	0
11:45 AM	0	5	1	0
12:00 PM	0	2	0	0
12:15 PM	1	1	0	0
12:30 PM	0	5	0	1
12:45 PM	0	3	0	1
1:00 PM	0	6	1	0
1:15 PM	0	1	0	0
1:30 PM	2	4	0	1
1:45 PM	1	7	0	0
2:00 PM	0	0	1	0
2:15 PM	0	7	2	0
2:30 PM	4	2	7	0
2:45 PM	2	3	2	1
3:00 PM	1	2	1	0
3:15 PM	2	1	0	0
3:30 PM	0	1	0	0
3:45 PM	0	1	2	0
4:00 PM	3	2	0	1
4:15 PM	0	0	2	1
4:30 PM	0	1	0	1
4:45 PM	1	2	1	1
5:00 PM	0	2	1	1
5:15 PM	1	0	1	0
5:30 PM	0	3	1	0
5:45 PM	0	0	0	0

Study Name **Location 9 7th St & College Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	College Ave Crossing East Leg	7th Ave Crossing South Leg	College Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	1	1	0
7:45 AM	0	2	0	0
8:00 AM	0	4	0	0
8:15 AM	0	0	0	0
8:30 AM	0	3	0	0
8:45 AM	0	2	0	0
9:00 AM	0	1	0	0
9:15 AM	0	0	0	0
9:30 AM	0	2	0	0
9:45 AM	0	1	1	2
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	1	0
11:00 AM	0	1	0	0
11:15 AM	0	0	0	0
11:30 AM	0	1	0	0
11:45 AM	1	3	0	0
12:00 PM	0	1	0	0
12:15 PM	0	1	0	0
12:30 PM	0	1	0	0
12:45 PM	1	0	0	1
1:00 PM	0	2	0	0
1:15 PM	0	1	0	0
1:30 PM	1	2	0	1
1:45 PM	1	2	1	0
2:00 PM	0	4	0	0
2:15 PM	0	0	0	0
2:30 PM	2	3	0	0
2:45 PM	0	1	0	0
3:00 PM	1	0	0	0
3:15 PM	0	2	1	0
3:30 PM	0	4	0	0
3:45 PM	0	4	0	0
4:00 PM	0	5	0	0
4:15 PM	0	1	0	1
4:30 PM	1	0	1	0
4:45 PM	0	0	1	0
5:00 PM	0	0	0	0
5:15 PM	0	5	0	0
5:30 PM	0	3	0	0
5:45 PM	0	3	0	0

Study Name **Location 9 7th St & College Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				College Ave Westbound				7th St Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	1	0	1	3	0	0	8	1	1	0	1	4	1	0
6:15 AM	0	3	1	0	1	6	0	0	12	8	1	0	0	13	0	0
6:30 AM	0	4	4	0	2	5	1	0	23	17	2	0	2	22	0	0
6:45 AM	1	4	8	0	0	17	1	0	52	18	1	0	1	30	1	0
7:00 AM	3	5	4	0	6	49	5	0	11	19	26	0	3	31	1	0
7:15 AM	0	14	5	0	7	44	3	0	39	21	32	0	11	54	3	0
7:30 AM	0	10	9	0	7	21	8	0	23	51	9	0	13	22	1	0
7:45 AM	0	15	5	0	20	27	5	0	28	88	21	0	18	61	6	0
8:00 AM	0	8	2	0	2	21	4	0	27	50	16	0	11	23	3	0
8:15 AM	0	6	4	0	4	20	3	0	24	32	14	0	10	39	0	0
8:30 AM	1	13	6	0	9	18	5	0	12	52	16	0	7	32	1	0
8:45 AM	3	20	9	0	29	29	6	0	17	89	18	0	37	52	6	0
9:00 AM	1	22	7	0	4	18	3	0	17	30	24	0	10	33	2	0
9:15 AM	0	12	3	0	5	22	2	0	10	34	13	0	7	21	1	0
9:30 AM	0	16	11	0	16	30	5	0	10	58	19	0	4	36	2	0
9:45 AM	2	44	15	0	18	26	4	0	16	74	21	0	13	47	2	0
10:00 AM	3	17	10	0	6	19	7	0	13	20	18	0	10	30	1	0
10:15 AM	1	24	7	0	5	29	4	0	10	27	10	0	8	32	0	0
10:30 AM	4	17	14	0	9	31	5	0	6	33	15	0	6	26	2	0
10:45 AM	4	33	21	0	11	30	4	0	16	39	24	0	11	37	2	0
11:00 AM	4	21	11	0	5	30	5	0	10	20	21	0	6	38	0	0
11:15 AM	2	17	13	0	3	26	5	0	6	27	15	0	12	38	0	0
11:30 AM	2	40	19	0	17	28	9	0	15	47	17	0	11	36	3	0
11:45 AM	3	51	16	0	20	31	8	0	16	51	17	0	9	61	7	0
12:00 PM	3	22	15	0	6	38	9	0	18	23	18	0	17	72	1	0
12:15 PM	1	20	8	0	5	46	11	0	5	27	17	0	14	47	2	0
12:30 PM	0	26	14	0	8	54	11	0	18	37	23	0	15	56	3	0
12:45 PM	2	35	21	0	9	45	5	0	10	40	25	0	9	59	5	0
1:00 PM	4	30	7	0	8	28	9	0	11	26	19	0	10	41	3	0
1:15 PM	4	17	13	0	10	36	9	0	11	26	24	0	11	45	1	0
1:30 PM	4	28	18	0	10	47	5	0	14	39	15	0	11	48	1	0
1:45 PM	1	41	18	0	8	41	6	0	7	47	25	0	18	37	3	0
2:00 PM	4	18	13	0	6	48	7	0	5	26	18	0	10	45	4	0
2:15 PM	1	19	11	0	3	53	9	0	10	27	23	0	17	54	5	0
2:30 PM	2	29	19	0	12	49	14	0	19	34	30	0	27	62	2	0
2:45 PM	3	51	16	0	16	45	13	0	11	49	26	0	16	56	1	0
3:00 PM	3	25	15	0	11	56	19	0	7	31	32	0	17	45	4	0
3:15 PM	2	33	11	0	8	42	13	0	7	29	22	0	11	40	0	0
3:30 PM	5	51	20	0	13	58	20	0	12	37	28	0	26	34	3	0
3:45 PM	4	40	15	0	7	44	8	0	17	54	27	0	21	74	2	0
4:00 PM	3	47	11	0	13	56	18	0	4	50	25	0	21	41	0	0
4:15 PM	1	36	12	0	7	43	17	0	9	24	31	0	11	47	2	0
4:30 PM	4	42	19	0	10	41	18	0	11	31	29	0	14	55	2	0
4:45 PM	4	44	16	0	14	52	19	0	8	30	31	0	15	57	1	0
5:00 PM	7	66	14	0	11	59	21	0	6	41	26	0	25	56	2	0
5:15 PM	3	36	15	0	11	48	5	0	8	36	24	0	12	56	0	0
5:30 PM	0	35	10	0	13	33	5	0	12	22	30	0	16	50	0	0
5:45 PM	3	48	20	0	11	38	7	0	7	39	23	0	15	42	2	0

Study Name **Location 10 Presque Isle Ave & Center St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Parking Lot Westbound				Presque Isle Ave Northbound				Center St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	14	0	0	0	0	0	0	0	9	1	0	0	0	0	0
6:15 AM	0	14	0	0	0	0	0	0	0	16	1	0	3	0	0	0
6:30 AM	0	20	0	0	0	0	0	0	0	37	4	0	1	0	0	1
6:45 AM	0	32	0	0	0	0	0	0	0	41	6	0	4	0	0	0
7:00 AM	0	23	0	0	0	0	0	0	0	36	0	0	0	0	0	0
7:15 AM	0	27	0	0	0	0	0	0	0	33	2	0	5	0	0	0
7:30 AM	1	40	0	0	0	1	0	0	0	45	4	0	5	0	1	0
7:45 AM	1	46	0	0	0	1	0	0	0	76	6	0	10	2	1	0
8:00 AM	2	22	0	0	0	1	0	0	0	40	5	0	3	0	0	0
8:15 AM	1	38	0	0	0	0	0	0	0	33	4	0	3	0	0	0
8:30 AM	3	39	0	0	0	2	0	0	0	38	6	0	5	0	0	0
8:45 AM	2	59	0	0	0	0	0	0	0	55	7	0	8	5	1	0
9:00 AM	0	48	0	0	0	1	1	0	1	51	7	0	5	0	2	0
9:15 AM	1	41	0	0	0	1	0	0	1	32	5	0	0	1	1	0
9:30 AM	2	60	1	0	0	0	0	0	0	54	5	0	7	0	1	0
9:45 AM	2	62	0	0	0	4	0	0	0	62	12	0	9	5	1	0
10:00 AM	0	47	0	0	0	3	0	0	0	61	4	0	3	2	1	0
10:15 AM	1	59	0	0	0	1	0	0	0	60	5	0	3	0	3	0
10:30 AM	0	47	0	0	0	0	1	0	0	52	13	0	5	0	0	0
10:45 AM	2	55	0	0	0	3	0	0	0	62	13	0	12	0	1	0
11:00 AM	0	48	0	0	0	0	0	0	2	58	6	0	7	0	2	0
11:15 AM	1	66	0	0	0	3	1	0	0	61	9	0	5	0	0	0
11:30 AM	2	81	0	0	0	0	0	0	0	75	10	0	7	3	4	0
11:45 AM	0	105	1	0	0	3	0	0	0	103	11	0	10	6	1	0
12:00 PM	2	73	0	0	0	1	1	0	0	98	5	0	13	0	3	0
12:15 PM	0	85	0	0	0	1	0	0	0	78	6	0	3	1	4	0
12:30 PM	2	82	0	0	0	1	0	0	0	96	15	0	11	0	0	0
12:45 PM	0	81	1	0	1	3	1	0	0	83	6	0	21	7	2	0
1:00 PM	1	79	0	0	0	0	1	0	1	90	7	0	11	0	3	0
1:15 PM	0	59	0	0	0	0	0	0	0	75	5	0	8	1	0	0
1:30 PM	0	64	0	0	0	0	0	0	0	65	7	1	16	3	1	0
1:45 PM	0	93	0	0	0	0	0	0	0	86	5	0	15	9	4	0
2:00 PM	0	64	0	0	0	1	1	0	1	85	5	0	10	2	0	0
2:15 PM	0	82	0	0	1	2	0	0	0	74	3	0	6	1	1	0
2:30 PM	0	83	0	0	0	2	0	0	0	92	9	1	2	3	1	0
2:45 PM	0	78	0	0	0	3	0	0	0	108	8	0	16	7	1	0
3:00 PM	2	94	0	0	0	1	0	0	0	103	2	0	8	5	1	0
3:15 PM	1	96	1	0	0	4	0	0	0	82	10	0	3	0	3	0
3:30 PM	2	106	1	0	0	1	1	0	0	106	8	0	23	0	1	0
3:45 PM	2	87	0	0	0	0	0	0	0	81	15	0	19	0	4	0
4:00 PM	5	98	1	0	1	1	0	0	0	102	10	0	20	1	3	0
4:15 PM	1	87	0	0	0	1	0	0	0	72	5	0	11	3	2	0
4:30 PM	0	103	0	0	0	0	0	0	0	91	7	0	15	0	1	0
4:45 PM	1	107	0	0	0	4	0	0	0	100	8	0	12	6	4	0
5:00 PM	0	119	0	0	0	6	0	0	0	129	13	0	12	0	3	0
5:15 PM	3	98	0	0	0	3	0	0	1	112	11	0	11	0	2	0
5:30 PM	0	89	0	0	2	1	0	0	1	99	5	0	12	0	4	0
5:45 PM	2	76	0	0	0	5	0	0	0	90	7	0	12	0	2	0

Study Name **Location 10 Presque Isle Ave & Center St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Parking Lot Westbound				Presque Isle Ave Northbound				Center St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:45 AM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:45 AM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	5	0	0	1	0	0	0
11:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	1	1	0	0	0	0	0	0	5	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	1	0	0	3	0	0	0	0	1	0
12:30 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	4	0	0	1	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	5	0	0	0	0	1	0
3:30 PM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0
3:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	4	0	0	1	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 10 Presque Isle Ave & Center St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Parking Lot Westbound				Presque Isle Ave Northbound				Center St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 10 Presque Isle Ave & Center St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Parking Lot Crossing East Leg	Presque Isle Ave Crossing South Leg	Center St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	1	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	2	2
7:15 AM	1	1	0	0
7:30 AM	0	1	2	1
7:45 AM	4	1	1	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	1
8:30 AM	0	1	2	0
8:45 AM	1	1	1	1
9:00 AM	0	3	0	0
9:15 AM	1	0	1	0
9:30 AM	1	1	1	0
9:45 AM	0	1	2	2
10:00 AM	0	2	2	0
10:15 AM	1	2	0	0
10:30 AM	0	5	2	0
10:45 AM	1	2	3	0
11:00 AM	0	1	4	2
11:15 AM	1	3	0	0
11:30 AM	0	3	8	1
11:45 AM	4	0	1	0
12:00 PM	1	3	1	0
12:15 PM	0	2	7	1
12:30 PM	0	3	6	2
12:45 PM	3	2	4	2
1:00 PM	2	2	2	2
1:15 PM	1	5	1	2
1:30 PM	3	5	2	0
1:45 PM	0	2	2	1
2:00 PM	1	1	5	1
2:15 PM	0	4	2	0
2:30 PM	1	6	5	3
2:45 PM	0	4	7	1
3:00 PM	0	5	1	1
3:15 PM	0	1	6	0
3:30 PM	3	4	1	1
3:45 PM	1	1	4	2
4:00 PM	1	2	5	1
4:15 PM	1	2	3	4
4:30 PM	3	5	8	0
4:45 PM	4	3	4	3
5:00 PM	2	3	2	0
5:15 PM	3	4	2	0
5:30 PM	2	1	3	1
5:45 PM	2	4	2	0

Location 10.xls

Study Name **Location 10 Presque Isle Ave & Center St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Parking Lot Crossing East Leg	Presque Isle Ave Crossing South Leg	Center St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	1	0
6:15 AM	0	0	4	1
6:30 AM	0	0	1	0
6:45 AM	0	0	3	1
7:00 AM	0	1	0	0
7:15 AM	0	0	1	0
7:30 AM	1	0	0	0
7:45 AM	0	0	1	0
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	1	1	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	2	0
9:30 AM	0	1	1	1
9:45 AM	0	1	3	0
10:00 AM	0	1	2	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	1
10:45 AM	0	0	0	1
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	1	0
11:45 AM	0	2	0	2
12:00 PM	0	0	0	0
12:15 PM	0	5	1	0
12:30 PM	0	0	2	1
12:45 PM	0	2	1	0
1:00 PM	0	0	1	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	1
1:45 PM	0	2	1	1
2:00 PM	0	0	0	0
2:15 PM	0	0	1	3
2:30 PM	0	0	1	0
2:45 PM	0	0	2	0
3:00 PM	0	0	0	0
3:15 PM	1	3	3	2
3:30 PM	1	0	4	1
3:45 PM	0	0	0	0
4:00 PM	0	1	2	0
4:15 PM	0	2	1	2
4:30 PM	0	0	3	1
4:45 PM	0	1	0	0
5:00 PM	0	3	1	0
5:15 PM	0	2	0	0
5:30 PM	1	2	1	1
5:45 PM	2	0	3	1

Study Name **Location 10 Presque Isle Ave & Center St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Parking Lot Westbound				Presque Isle Ave Northbound				Center St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	15	0	0	0	0	0	0	0	9	1	0	0	0	0	0
6:15 AM	0	15	0	0	0	0	0	0	0	19	1	0	3	0	0	0
6:30 AM	0	21	0	0	0	0	0	0	0	38	4	0	1	0	0	1
6:45 AM	0	35	0	0	0	0	0	0	0	41	6	0	4	0	0	0
7:00 AM	0	24	0	0	0	0	0	0	0	37	0	0	0	0	0	0
7:15 AM	0	27	0	0	0	0	0	0	0	35	2	0	5	0	0	0
7:30 AM	1	41	0	0	0	1	0	0	0	48	4	0	6	0	1	0
7:45 AM	1	50	0	0	0	1	0	0	0	79	6	0	10	2	1	0
8:00 AM	2	23	0	0	0	1	0	0	0	43	5	0	3	0	0	0
8:15 AM	1	39	0	0	0	0	0	0	0	33	4	0	3	0	0	0
8:30 AM	3	40	0	0	0	2	0	0	0	41	6	0	5	0	0	0
8:45 AM	2	62	0	0	0	0	0	0	0	56	7	0	8	5	1	0
9:00 AM	0	49	0	0	0	1	1	0	1	52	7	0	5	0	2	0
9:15 AM	1	42	0	0	0	1	0	0	1	32	6	0	1	1	1	0
9:30 AM	2	61	1	0	0	0	0	0	0	54	5	0	7	0	1	0
9:45 AM	2	62	0	0	0	4	0	0	0	63	12	0	9	5	1	0
10:00 AM	0	47	0	0	0	3	0	0	0	64	4	0	3	2	1	0
10:15 AM	1	60	0	0	0	1	0	0	0	62	5	0	3	0	3	0
10:30 AM	0	49	0	0	0	0	1	0	0	54	13	0	5	0	0	0
10:45 AM	2	58	0	0	0	3	0	0	0	65	13	0	12	0	1	0
11:00 AM	0	48	0	0	0	0	0	0	2	65	6	0	8	0	2	0
11:15 AM	1	68	0	0	0	3	1	0	0	62	9	0	5	0	0	0
11:30 AM	2	82	1	0	0	0	0	0	0	80	11	0	7	3	4	0
11:45 AM	0	105	1	0	0	3	0	0	0	104	11	0	10	6	1	0
12:00 PM	3	74	0	0	0	1	1	0	0	99	5	0	13	0	3	0
12:15 PM	0	85	0	0	0	1	1	0	0	82	6	0	3	1	5	0
12:30 PM	2	84	0	0	0	1	0	0	0	99	15	0	11	0	0	0
12:45 PM	0	83	1	0	1	3	1	0	0	84	6	0	21	7	2	0
1:00 PM	1	79	0	0	0	0	1	0	1	91	7	0	11	0	3	0
1:15 PM	0	62	0	0	0	0	0	0	0	76	5	0	8	1	0	0
1:30 PM	0	66	0	0	0	0	0	0	0	68	7	1	16	3	1	0
1:45 PM	0	94	0	0	0	0	0	0	0	87	5	0	15	9	4	0
2:00 PM	0	66	0	0	0	1	1	0	1	87	6	0	10	2	0	0
2:15 PM	0	85	0	0	1	2	0	0	0	77	3	0	6	1	1	0
2:30 PM	0	84	0	0	0	2	0	0	0	96	9	1	3	3	1	0
2:45 PM	0	79	0	0	0	3	0	0	0	113	8	0	16	7	1	0
3:00 PM	2	96	0	0	0	1	0	0	0	106	2	0	9	5	1	0
3:15 PM	2	98	1	0	0	4	0	0	0	88	10	0	3	0	4	0
3:30 PM	2	110	1	0	0	1	1	0	0	109	8	0	23	0	1	0
3:45 PM	2	90	0	0	0	0	0	0	0	84	15	0	19	0	4	0
4:00 PM	5	100	1	0	1	1	0	0	0	108	10	0	20	1	3	0
4:15 PM	1	89	0	0	0	1	0	0	0	74	5	0	11	3	2	0
4:30 PM	0	103	0	0	0	0	0	0	0	92	7	0	15	0	1	0
4:45 PM	1	109	0	0	0	4	0	0	0	100	8	0	12	6	4	0
5:00 PM	0	120	0	0	0	6	0	0	0	131	13	0	13	0	3	0
5:15 PM	3	99	0	0	0	3	0	0	1	114	11	0	11	0	2	0
5:30 PM	0	90	0	0	2	1	0	0	1	103	5	0	13	0	4	0
5:45 PM	2	76	0	0	0	5	0	0	0	90	7	0	12	0	2	0

Study Name **Location 11 Presque Isle Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Wright St Westbound				Presque Isle Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	5	0	0	0	1	0	0	2	4	5	0	6	9	1	0
6:15 AM	4	7	0	0	0	2	0	0	4	8	9	0	6	11	2	0
6:30 AM	1	8	0	0	0	4	0	0	0	23	11	0	10	5	3	0
6:45 AM	3	15	0	0	1	5	1	0	2	19	19	0	9	6	3	0
7:00 AM	4	8	2	0	1	10	0	0	0	19	16	0	13	6	3	0
7:15 AM	5	9	0	0	1	6	0	0	2	9	22	0	20	6	1	0
7:30 AM	3	23	2	0	0	20	4	0	2	13	18	0	19	16	2	0
7:45 AM	11	27	0	0	2	18	1	0	4	26	42	0	17	24	6	0
8:00 AM	5	5	3	0	1	22	2	0	0	22	22	0	13	15	4	0
8:15 AM	4	15	2	0	2	17	1	0	2	11	22	0	17	9	5	0
8:30 AM	6	19	3	0	2	13	1	0	1	13	20	0	21	15	4	0
8:45 AM	10	19	4	0	3	16	2	0	5	19	26	0	32	21	8	0
9:00 AM	6	15	4	0	5	11	1	0	4	17	27	0	30	14	6	0
9:15 AM	10	16	3	0	1	9	1	0	0	10	18	0	18	15	6	0
9:30 AM	8	20	4	0	2	24	3	0	6	19	26	0	35	22	4	0
9:45 AM	4	20	5	0	1	15	5	0	4	19	39	0	37	31	7	0
10:00 AM	6	22	5	0	3	14	2	0	3	20	36	0	21	22	4	0
10:15 AM	12	29	2	0	2	10	1	0	4	19	30	0	21	16	4	0
10:30 AM	9	15	2	0	3	16	1	0	2	15	30	0	26	20	5	0
10:45 AM	9	23	3	1	5	23	3	0	0	32	28	0	23	22	6	0
11:00 AM	7	23	3	0	4	15	2	0	2	14	30	0	18	24	5	0
11:15 AM	11	26	1	0	3	18	0	0	5	23	37	0	32	17	8	0
11:30 AM	12	34	4	0	3	16	1	0	6	23	43	0	40	16	16	0
11:45 AM	12	43	5	0	4	24	3	0	8	38	47	0	52	32	13	0
12:00 PM	12	34	3	0	3	11	2	0	7	31	54	0	31	21	13	0
12:15 PM	20	31	0	0	5	22	4	0	6	34	32	0	39	18	12	0
12:30 PM	5	30	3	0	2	26	5	0	13	25	47	0	34	23	10	0
12:45 PM	12	29	8	0	2	16	3	0	6	42	39	0	47	56	13	0
1:00 PM	12	27	4	0	7	21	7	0	7	34	45	0	39	22	13	0
1:15 PM	13	26	5	0	2	16	1	0	3	36	34	0	28	33	15	0
1:30 PM	19	28	4	0	3	24	3	0	6	24	38	0	23	19	11	0
1:45 PM	13	38	5	0	4	20	2	0	6	33	52	0	48	24	17	0
2:00 PM	6	33	4	0	5	13	1	0	9	31	37	0	33	18	10	0
2:15 PM	18	31	3	0	3	12	6	0	3	21	39	0	38	23	6	0
2:30 PM	8	35	3	0	2	25	2	0	5	34	53	0	34	27	14	0
2:45 PM	18	36	5	0	7	36	4	0	13	32	55	0	34	46	13	0
3:00 PM	14	35	3	0	5	17	9	0	14	34	61	0	45	39	21	0
3:15 PM	13	29	3	0	2	35	13	0	15	28	39	0	50	28	13	0
3:30 PM	17	47	6	0	3	32	7	0	7	34	54	0	51	34	17	0
3:45 PM	10	37	7	0	3	28	6	0	8	25	47	0	44	35	8	0
4:00 PM	3	45	4	0	5	18	11	0	5	48	45	0	44	33	16	0
4:15 PM	16	35	2	0	4	23	1	0	7	27	45	0	40	19	9	0
4:30 PM	7	33	6	0	0	29	6	0	12	31	47	0	52	34	11	0
4:45 PM	10	38	3	0	4	33	5	0	14	32	50	0	43	37	10	0
5:00 PM	9	37	2	0	3	39	6	0	6	52	64	0	62	44	11	0
5:15 PM	10	33	4	0	4	36	7	0	8	50	52	0	51	30	12	0
5:30 PM	12	31	3	0	5	21	8	0	9	39	51	0	43	25	10	0
5:45 PM	18	28	6	0	8	50	8	0	9	39	55	0	38	56	12	0

Study Name **Location 11 Presque Isle Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Wright St Westbound				Presque Isle Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
6:45 AM	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	1	0	0	0	0	2	0	1	0	0	0
7:45 AM	1	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	1	0	0	2	0	0	0	2	1	0	1	0	0	0
8:45 AM	1	1	0	0	0	2	0	0	0	0	0	0	2	0	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0
9:30 AM	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0	0
9:45 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0
10:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
10:15 AM	0	2	0	0	0	1	0	0	0	1	2	0	0	1	0	0
10:30 AM	0	0	0	0	0	3	0	0	0	0	2	0	0	0	0	0
10:45 AM	0	1	0	0	0	2	0	0	0	0	2	0	4	0	0	0
11:00 AM	1	0	0	0	0	1	0	0	0	2	0	0	1	0	0	0
11:15 AM	0	0	0	0	0	2	0	0	1	1	1	0	2	0	0	0
11:30 AM	0	0	0	0	0	3	0	0	0	0	4	0	1	0	0	0
11:45 AM	0	0	0	0	0	2	0	0	0	1	1	0	0	0	0	0
12:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0
12:15 PM	0	0	0	0	0	2	0	0	0	1	2	0	1	0	0	0
12:30 PM	1	0	0	0	0	1	0	0	0	0	3	0	1	0	0	0
12:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0
1:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0
1:15 PM	0	1	0	0	0	1	0	0	0	1	0	0	1	2	0	0
1:30 PM	0	1	0	0	0	1	0	0	0	0	2	0	1	0	0	0
1:45 PM	0	0	0	0	0	2	1	0	0	1	0	0	0	1	0	0
2:00 PM	0	0	0	0	1	1	0	0	0	0	2	0	2	0	1	0
2:15 PM	0	2	0	0	0	1	0	0	0	0	1	0	1	0	0	0
2:30 PM	0	0	0	0	0	2	0	0	0	1	4	0	1	1	1	0
2:45 PM	0	0	0	0	0	1	0	0	1	1	2	0	1	1	2	0
3:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0
3:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0
3:30 PM	0	2	0	0	0	2	0	0	0	2	1	0	1	0	0	0
3:45 PM	0	1	0	0	0	1	0	0	0	1	1	0	1	0	1	0
4:00 PM	0	0	0	0	0	2	0	0	0	3	3	0	1	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0
4:30 PM	0	1	0	0	0	3	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0
5:00 PM	1	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 11 Presque Isle Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Wright St Westbound				Presque Isle Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
6:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
11:00 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	1	0	0	0	0	2	0	1	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:00 PM	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 11 Presque Isle Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Wright St Crossing East Leg	Presque Isle Ave Crossing South Leg	Wright St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	1	0
6:15 AM	0	0	0	1
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	2	0	0
7:30 AM	0	3	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	2	0
8:15 AM	0	1	0	1
8:30 AM	0	0	0	0
8:45 AM	0	1	0	2
9:00 AM	1	2	0	0
9:15 AM	0	1	0	0
9:30 AM	0	0	0	0
9:45 AM	0	1	0	2
10:00 AM	0	2	1	3
10:15 AM	0	3	2	0
10:30 AM	2	1	1	0
10:45 AM	0	0	0	2
11:00 AM	0	0	0	0
11:15 AM	0	2	0	0
11:30 AM	2	3	0	0
11:45 AM	0	1	1	0
12:00 PM	0	1	2	0
12:15 PM	0	1	0	1
12:30 PM	3	4	0	0
12:45 PM	1	2	0	0
1:00 PM	0	0	0	0
1:15 PM	3	1	0	4
1:30 PM	1	1	0	0
1:45 PM	0	2	0	0
2:00 PM	0	1	0	0
2:15 PM	2	0	0	0
2:30 PM	0	2	0	1
2:45 PM	0	1	0	2
3:00 PM	0	0	0	1
3:15 PM	2	2	0	0
3:30 PM	0	1	0	0
3:45 PM	1	0	0	1
4:00 PM	0	0	2	0
4:15 PM	0	0	2	1
4:30 PM	0	0	1	1
4:45 PM	0	0	1	1
5:00 PM	0	0	0	0
5:15 PM	0	0	2	0
5:30 PM	0	0	0	3
5:45 PM	0	0	0	4

Study Name **Location 11 Presque Isle Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Wright St Crossing East Leg	Presque Isle Ave Crossing South Leg	Wright St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	1	0	0
9:30 AM	0	2	0	1
9:45 AM	0	1	0	0
10:00 AM	0	1	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	1	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	1	0	1
11:45 AM	1	2	0	0
12:00 PM	0	0	1	0
12:15 PM	0	3	0	0
12:30 PM	0	1	0	1
12:45 PM	0	3	0	0
1:00 PM	0	3	0	0
1:15 PM	0	0	0	0
1:30 PM	0	3	0	1
1:45 PM	0	4	0	0
2:00 PM	0	0	0	0
2:15 PM	0	3	0	0
2:30 PM	1	2	0	0
2:45 PM	0	1	1	1
3:00 PM	0	3	0	0
3:15 PM	1	0	0	0
3:30 PM	0	5	1	0
3:45 PM	0	1	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	2	0
5:30 PM	0	0	0	0
5:45 PM	0	0	1	0

Study Name **Location 11 Presque Isle Ave & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Wright St Westbound				Presque Isle Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	5	0	0	0	1	0	0	2	4	5	0	7	9	1	0
6:15 AM	4	7	0	0	0	2	0	0	4	8	10	0	6	11	2	0
6:30 AM	2	8	0	0	0	5	1	0	0	23	13	0	10	5	3	0
6:45 AM	4	16	0	0	1	6	1	0	2	19	19	0	10	6	3	0
7:00 AM	4	9	2	0	1	10	0	0	0	19	17	0	13	7	3	0
7:15 AM	6	9	0	0	1	6	0	0	2	9	22	0	20	6	2	0
7:30 AM	4	24	2	0	0	21	4	0	2	14	20	0	20	16	2	0
7:45 AM	12	28	0	0	2	19	1	0	4	27	43	0	17	24	6	0
8:00 AM	5	5	3	0	1	24	2	0	0	22	26	0	14	15	4	0
8:15 AM	4	16	2	0	2	17	1	0	2	11	22	0	17	10	5	0
8:30 AM	6	19	4	0	2	15	1	0	1	15	21	0	22	15	4	0
8:45 AM	11	20	4	0	3	18	2	0	5	20	26	0	34	21	9	0
9:00 AM	6	15	4	0	5	12	1	0	4	18	28	0	31	14	6	0
9:15 AM	10	16	3	0	1	10	1	0	0	10	19	0	19	15	6	0
9:30 AM	8	22	4	0	2	25	3	0	6	20	27	0	35	23	4	0
9:45 AM	4	20	5	0	1	17	5	0	4	19	40	0	37	31	7	0
10:00 AM	6	22	5	0	3	15	2	0	3	21	36	0	21	23	4	0
10:15 AM	12	31	2	0	2	11	1	0	4	20	32	0	21	17	4	0
10:30 AM	9	15	2	0	3	19	1	0	2	15	32	0	26	20	5	0
10:45 AM	9	24	3	1	5	25	3	0	0	32	31	0	27	22	7	0
11:00 AM	8	23	3	0	4	17	2	0	2	17	31	0	19	24	5	0
11:15 AM	12	26	1	0	3	20	0	0	6	24	38	0	34	17	8	0
11:30 AM	12	34	4	0	3	19	1	0	6	23	47	0	41	16	16	0
11:45 AM	12	43	5	0	4	26	3	0	8	39	48	0	52	32	13	0
12:00 PM	12	34	3	0	3	13	2	0	7	31	54	0	33	21	13	0
12:15 PM	21	31	0	0	5	24	4	0	6	36	34	0	40	18	12	0
12:30 PM	6	30	3	0	2	27	5	0	13	25	50	0	36	23	10	0
12:45 PM	12	29	8	0	2	17	3	0	6	42	39	0	49	56	14	0
1:00 PM	12	27	4	0	7	23	7	0	7	34	46	0	39	22	13	0
1:15 PM	13	27	5	0	2	17	1	0	3	37	34	0	29	35	15	0
1:30 PM	19	29	4	0	3	25	3	0	6	24	40	0	24	19	11	0
1:45 PM	13	38	5	0	4	22	3	0	6	34	52	0	48	25	17	0
2:00 PM	6	33	4	0	6	14	1	0	9	31	39	0	35	18	11	0
2:15 PM	18	34	3	0	3	13	6	0	3	21	41	0	39	23	6	0
2:30 PM	8	35	3	0	2	27	2	0	5	35	57	0	35	28	15	0
2:45 PM	18	36	5	0	7	38	4	0	14	33	57	0	35	47	15	0
3:00 PM	14	36	3	0	5	19	9	0	14	34	64	0	46	40	21	0
3:15 PM	13	32	3	0	3	35	13	0	15	28	41	0	50	28	13	0
3:30 PM	17	50	6	0	3	34	7	0	7	36	55	0	52	34	17	0
3:45 PM	10	39	7	0	3	29	6	0	8	26	49	0	45	35	9	0
4:00 PM	4	46	4	0	5	20	11	0	5	52	49	0	45	33	16	0
4:15 PM	16	35	2	0	4	23	1	0	7	29	46	0	42	20	9	0
4:30 PM	7	34	6	0	0	32	6	0	12	31	48	0	52	35	11	0
4:45 PM	10	39	3	0	4	34	5	0	14	35	50	0	44	37	10	0
5:00 PM	10	38	2	0	3	42	6	0	6	52	65	0	62	44	11	0
5:15 PM	10	33	4	0	4	36	7	0	8	50	54	0	53	31	12	0
5:30 PM	12	32	3	0	5	21	8	0	9	39	53	0	43	25	11	0
5:45 PM	18	28	6	0	8	50	8	0	9	39	55	0	38	56	12	0

Study Name **Location 12 Lakeshore Blvd & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Wright St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	6	0	10	1	0	1	0	0
6:15 AM	1	0	0	6	2	0	0	1	0
6:30 AM	0	1	0	17	2	0	1	0	0
6:45 AM	0	0	0	11	9	0	1	1	0
7:00 AM	0	4	0	9	4	0	2	2	1
7:15 AM	1	8	0	14	6	0	3	2	0
7:30 AM	2	11	0	11	17	0	6	1	0
7:45 AM	2	12	0	14	8	0	5	2	0
8:00 AM	1	10	0	24	8	0	6	1	0
8:15 AM	1	9	0	18	8	0	4	1	0
8:30 AM	1	12	0	16	11	0	4	0	0
8:45 AM	1	11	0	9	10	1	6	3	0
9:00 AM	2	10	0	12	4	0	13	0	0
9:15 AM	0	15	0	14	12	0	6	2	0
9:30 AM	2	22	0	20	7	0	11	2	0
9:45 AM	0	14	0	26	2	0	3	9	0
10:00 AM	0	28	0	20	5	0	11	9	0
10:15 AM	3	18	0	23	7	0	11	3	0
10:30 AM	3	24	1	14	8	0	9	5	0
10:45 AM	3	14	0	15	6	0	10	3	0
11:00 AM	2	12	0	20	5	0	13	6	0
11:15 AM	7	21	0	14	2	0	10	6	0
11:30 AM	3	22	0	24	9	0	15	1	0
11:45 AM	0	20	0	28	8	0	14	9	0
12:00 PM	2	26	0	27	10	0	12	5	0
12:15 PM	4	15	0	25	13	0	9	3	0
12:30 PM	1	20	0	36	14	0	14	7	0
12:45 PM	2	19	0	41	11	0	17	10	0
1:00 PM	1	24	0	56	10	0	15	5	0
1:15 PM	3	28	0	34	11	0	14	14	0
1:30 PM	6	36	0	43	13	0	8	9	0
1:45 PM	8	32	0	33	14	0	16	2	0
2:00 PM	5	29	0	31	7	0	10	10	0
2:15 PM	3	37	0	29	14	0	14	2	0
2:30 PM	4	33	0	39	8	0	9	7	1
2:45 PM	7	28	0	25	21	0	19	13	0
3:00 PM	8	31	0	33	17	0	20	4	0
3:15 PM	4	29	0	32	21	0	27	8	0
3:30 PM	7	30	0	32	19	0	20	7	0
3:45 PM	4	41	0	25	16	0	26	10	0
4:00 PM	3	50	0	38	15	0	24	6	0
4:15 PM	3	37	0	31	18	0	18	8	0
4:30 PM	2	40	0	35	10	0	24	7	0
4:45 PM	6	33	0	36	17	1	20	10	0
5:00 PM	3	46	0	39	22	0	26	9	0
5:15 PM	6	52	0	23	15	0	27	7	0
5:30 PM	7	34	0	28	15	0	15	6	0
5:45 PM	6	36	0	39	14	0	29	12	0

Study Name **Location 12 Lakeshore Blvd & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Wright St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	1	0	0	0	0	0
6:30 AM	0	0	0	0	1	0	1	0	0
6:45 AM	0	0	0	1	1	0	0	0	0
7:00 AM	0	0	0	0	0	0	1	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0
8:30 AM	0	1	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0
9:15 AM	0	0	0	1	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	1	1	0
9:45 AM	0	1	0	1	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	1	0	0
10:15 AM	0	0	0	1	0	0	1	0	0
10:30 AM	0	0	0	1	1	0	1	0	0
10:45 AM	0	1	0	0	1	0	0	0	0
11:00 AM	0	0	0	1	1	0	1	0	0
11:15 AM	0	0	0	1	1	0	0	0	0
11:30 AM	0	1	0	0	1	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	1	0	0
12:30 PM	0	1	0	1	0	0	0	0	0
12:45 PM	0	0	0	1	0	0	0	0	0
1:00 PM	0	0	0	2	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	1	1	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	1	0	1	0	0
2:00 PM	0	1	0	1	0	0	0	0	0
2:15 PM	0	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	1	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	1	1	0
3:15 PM	0	2	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	3	0	0	0	0	0
4:00 PM	0	2	0	0	1	0	0	0	0
4:15 PM	0	1	0	1	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	1	0	0	0	0	0

Study Name **Location 12 Lakeshore Blvd & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Wright St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	1	0
7:00 AM	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	0	0
8:00 AM	0	0	0	2	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	1	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	1	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	1	0	0	0	0
12:30 PM	0	0	0	0	1	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	2	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	1	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 12 Lakeshore Blvd & Wright**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Northbound Approach Crossing South Leg	Eastbound Approach Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	1
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	1	0	2
7:15 AM	0	0	1
7:30 AM	0	0	0
7:45 AM	0	0	1
8:00 AM	0	0	4
8:15 AM	0	0	3
8:30 AM	0	0	4
8:45 AM	0	0	5
9:00 AM	0	0	0
9:15 AM	0	0	2
9:30 AM	0	0	1
9:45 AM	0	0	1
10:00 AM	0	0	0
10:15 AM	0	0	1
10:30 AM	2	0	3
10:45 AM	0	0	2
11:00 AM	0	0	7
11:15 AM	0	0	1
11:30 AM	0	0	2
11:45 AM	0	0	3
12:00 PM	0	0	9
12:15 PM	0	0	8
12:30 PM	0	0	1
12:45 PM	0	0	4
1:00 PM	0	0	5
1:15 PM	0	0	2
1:30 PM	0	0	2
1:45 PM	0	0	1
2:00 PM	0	0	0
2:15 PM	0	0	1
2:30 PM	0	0	1
2:45 PM	0	0	3
3:00 PM	0	0	1
3:15 PM	0	0	2
3:30 PM	0	0	1
3:45 PM	0	0	5
4:00 PM	0	0	3
4:15 PM	0	0	9
4:30 PM	0	0	3
4:45 PM	0	0	3
5:00 PM	0	0	6
5:15 PM	0	0	9
5:30 PM	0	0	6
5:45 PM	0	0	8

Study Name **Location 12 Lakeshore Blvd & Wright**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Northbound Approach Crossing South Leg	Eastbound Approach Crossing West Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	1
7:15 AM	0	0	0
7:30 AM	0	0	1
7:45 AM	0	0	0
8:00 AM	0	0	1
8:15 AM	0	0	2
8:30 AM	0	0	2
8:45 AM	0	0	2
9:00 AM	0	0	2
9:15 AM	0	0	1
9:30 AM	0	0	2
9:45 AM	0	0	1
10:00 AM	0	0	7
10:15 AM	0	0	3
10:30 AM	0	0	1
10:45 AM	0	0	1
11:00 AM	0	0	4
11:15 AM	0	0	4
11:30 AM	0	0	1
11:45 AM	0	0	0
12:00 PM	0	0	2
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	5
1:00 PM	0	0	6
1:15 PM	0	0	4
1:30 PM	0	0	10
1:45 PM	0	0	7
2:00 PM	0	0	4
2:15 PM	0	0	3
2:30 PM	0	0	1
2:45 PM	0	0	2
3:00 PM	0	0	7
3:15 PM	0	1	9
3:30 PM	0	0	0
3:45 PM	0	0	5
4:00 PM	0	0	7
4:15 PM	0	0	4
4:30 PM	0	0	8
4:45 PM	0	0	1
5:00 PM	0	0	6
5:15 PM	0	0	9
5:30 PM	0	0	11
5:45 PM	0	0	10

Study Name **Location 12 Lakeshore Blvd & Wright St**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Wright St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	6	0	10	1	0	1	0	0
6:15 AM	1	0	0	7	2	0	0	1	0
6:30 AM	0	1	0	17	3	0	2	0	0
6:45 AM	0	0	0	12	10	0	1	2	0
7:00 AM	0	4	0	10	4	0	3	2	1
7:15 AM	1	8	0	14	6	0	3	2	0
7:30 AM	2	11	0	12	17	0	6	1	0
7:45 AM	2	12	0	15	8	0	5	2	0
8:00 AM	1	10	0	26	8	0	6	1	0
8:15 AM	1	9	0	18	8	0	5	1	0
8:30 AM	1	14	0	16	11	0	4	1	0
8:45 AM	1	11	0	9	10	1	6	3	0
9:00 AM	2	11	0	13	4	0	13	0	0
9:15 AM	0	15	0	15	12	0	6	2	0
9:30 AM	2	23	0	20	7	0	12	3	0
9:45 AM	0	15	0	28	2	0	3	9	0
10:00 AM	0	28	0	20	5	0	12	9	0
10:15 AM	3	19	0	24	7	0	12	3	0
10:30 AM	3	24	1	15	9	0	10	5	0
10:45 AM	3	15	0	15	7	0	10	3	0
11:00 AM	2	12	0	21	6	0	14	6	0
11:15 AM	7	22	0	16	3	0	10	6	0
11:30 AM	3	23	0	25	10	0	15	1	0
11:45 AM	0	20	0	28	8	0	14	9	0
12:00 PM	2	27	0	27	10	0	12	5	0
12:15 PM	4	15	0	25	14	0	10	3	0
12:30 PM	1	21	0	37	15	0	14	7	0
12:45 PM	2	19	0	42	11	0	17	10	0
1:00 PM	1	24	0	60	10	0	15	5	0
1:15 PM	3	29	0	34	11	0	15	15	0
1:30 PM	6	36	0	43	13	0	8	9	0
1:45 PM	8	32	0	33	15	0	17	2	0
2:00 PM	5	30	0	32	7	0	10	10	0
2:15 PM	3	37	0	31	14	0	14	2	0
2:30 PM	4	33	0	39	8	0	10	7	1
2:45 PM	7	28	0	25	21	0	19	13	0
3:00 PM	8	31	0	33	18	0	21	5	0
3:15 PM	4	31	0	32	21	0	27	8	0
3:30 PM	7	30	0	32	19	0	20	7	0
3:45 PM	4	41	0	28	16	0	26	10	0
4:00 PM	3	52	0	38	16	0	24	6	0
4:15 PM	3	38	0	32	18	0	18	9	0
4:30 PM	2	40	0	35	10	0	25	7	0
4:45 PM	6	33	0	37	17	1	20	10	0
5:00 PM	3	47	0	39	23	0	26	9	0
5:15 PM	6	53	0	23	15	0	27	7	0
5:30 PM	7	34	0	28	15	0	15	6	0
5:45 PM	6	37	0	40	14	0	29	12	0

Study Name **Location 13 Pine St & Lakeshore Blvd**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southeastbound			Lakeshore Blvd Northwestbound			Pine St Northeastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	6	0	11	0	0	0	2	0
6:15 AM	0	0	0	7	0	0	0	0	0
6:30 AM	0	2	0	13	0	0	0	6	0
6:45 AM	1	1	0	15	0	0	0	2	0
7:00 AM	1	2	0	12	0	0	0	5	0
7:15 AM	1	13	0	17	0	0	0	2	0
7:30 AM	1	13	0	26	1	0	1	1	0
7:45 AM	4	14	0	20	0	0	1	5	0
8:00 AM	1	15	0	25	0	0	0	7	1
8:15 AM	1	14	0	18	0	0	1	4	0
8:30 AM	1	12	0	22	0	0	0	5	0
8:45 AM	2	16	0	18	1	0	0	5	0
9:00 AM	2	22	0	13	0	0	0	4	0
9:15 AM	5	14	0	20	1	0	0	3	0
9:30 AM	3	32	0	19	0	0	0	8	0
9:45 AM	3	14	0	25	0	0	0	5	0
10:00 AM	3	33	0	20	0	0	1	4	0
10:15 AM	3	26	0	23	0	0	0	5	0
10:30 AM	4	30	0	23	0	0	0	4	0
10:45 AM	4	21	0	14	2	0	0	4	0
11:00 AM	4	24	0	22	1	0	0	5	0
11:15 AM	4	27	0	16	0	0	1	1	0
11:30 AM	5	24	0	27	2	0	0	2	0
11:45 AM	5	34	0	32	2	0	1	8	0
12:00 PM	5	36	0	33	0	0	0	6	0
12:15 PM	3	18	0	30	0	0	0	6	0
12:30 PM	6	29	0	39	1	1	0	10	0
12:45 PM	8	28	0	42	3	0	1	11	0
1:00 PM	5	28	0	54	0	0	0	7	0
1:15 PM	5	43	0	33	0	0	1	15	0
1:30 PM	9	32	0	46	1	0	0	9	0
1:45 PM	6	42	0	42	0	0	1	3	0
2:00 PM	6	31	0	36	2	0	0	2	0
2:15 PM	7	44	0	33	0	0	0	9	0
2:30 PM	5	35	0	37	4	0	0	10	0
2:45 PM	13	36	0	41	0	0	1	5	0
3:00 PM	8	41	0	41	1	0	1	7	0
3:15 PM	7	46	0	43	0	0	1	13	0
3:30 PM	10	41	0	38	1	0	2	9	0
3:45 PM	13	52	0	30	1	0	0	14	0
4:00 PM	16	60	0	37	0	0	1	11	0
4:15 PM	14	42	0	37	1	0	1	12	0
4:30 PM	7	56	0	34	1	0	0	10	0
4:45 PM	12	44	0	37	2	0	1	18	0
5:00 PM	15	53	0	39	3	1	1	15	0
5:15 PM	8	72	0	29	0	0	0	14	0
5:30 PM	6	48	0	30	2	0	1	8	0
5:45 PM	12	45	0	43	0	0	1	10	0

Study Name **Location 13 Pine St & Lakeshore Blvd**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southeastbound			Lakeshore Blvd Northwestbound			Pine St Northeastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	1	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	1	0
6:45 AM	0	0	0	1	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	0
8:30 AM	1	2	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0
9:15 AM	0	0	0	1	0	0	0	0	0
9:30 AM	0	2	0	0	0	0	0	0	0
9:45 AM	0	0	0	1	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0
10:30 AM	0	0	0	1	0	0	0	0	0
10:45 AM	0	1	0	1	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	1	0	0	0	1	0
11:30 AM	0	1	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	1	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	1	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	1	0	0	0	0	0
1:15 PM	0	1	0	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	1	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	2	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	1	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	3	0	0	0	0	0
4:00 PM	0	1	0	1	0	0	0	1	0
4:15 PM	0	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0
5:00 PM	0	1	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	1	0	0	0	0	0

Study Name **Location 13 Pine St & Lakeshore Blvd**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southeastbound			Lakeshore Blvd Northwestbound			Pine St Northeastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	0	0
8:00 AM	0	0	0	2	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	1	0	1	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	1	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	1	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0
12:15 PM	0	0	0	1	0	0	0	0	0
12:30 PM	0	0	0	1	0	0	0	0	0
12:45 PM	0	0	0	1	0	0	0	0	0
1:00 PM	0	0	0	2	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 13 Pine St & Lakeshore Blvd**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing Northwest Leg	Lakeshore Blvd Crossing Southeast Leg	Pine St Crossing Southwest Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	2
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	1
7:15 AM	0	0	1
7:30 AM	0	0	1
7:45 AM	0	0	1
8:00 AM	0	0	2
8:15 AM	0	0	5
8:30 AM	0	0	4
8:45 AM	0	0	2
9:00 AM	0	0	4
9:15 AM	0	0	3
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	2
10:15 AM	0	0	0
10:30 AM	0	1	4
10:45 AM	0	0	1
11:00 AM	0	0	4
11:15 AM	0	0	4
11:30 AM	0	0	0
11:45 AM	0	0	4
12:00 PM	0	0	1
12:15 PM	0	0	4
12:30 PM	3	0	1
12:45 PM	2	0	2
1:00 PM	2	0	1
1:15 PM	0	0	3
1:30 PM	0	0	1
1:45 PM	0	0	0
2:00 PM	0	0	1
2:15 PM	0	0	1
2:30 PM	0	0	2
2:45 PM	1	0	4
3:00 PM	0	0	5
3:15 PM	6	0	2
3:30 PM	1	0	5
3:45 PM	0	0	2
4:00 PM	0	0	1
4:15 PM	2	0	6
4:30 PM	1	0	7
4:45 PM	1	0	6
5:00 PM	0	0	4
5:15 PM	0	0	6
5:30 PM	1	0	2
5:45 PM	0	0	1

Study Name **Location 13 Pine St & Lakeshore Blvd**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing Northwest Leg	Lakeshore Blvd Crossing Southeast Leg	Pine St Crossing Southwest Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	1
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	1
8:15 AM	0	0	0
8:30 AM	0	0	2
8:45 AM	0	0	2
9:00 AM	0	0	0
9:15 AM	0	0	1
9:30 AM	0	0	2
9:45 AM	0	0	1
10:00 AM	0	0	6
10:15 AM	0	0	3
10:30 AM	0	0	0
10:45 AM	0	0	1
11:00 AM	0	0	0
11:15 AM	0	0	4
11:30 AM	0	0	0
11:45 AM	0	0	1
12:00 PM	0	0	1
12:15 PM	0	0	1
12:30 PM	0	0	1
12:45 PM	0	0	5
1:00 PM	0	0	10
1:15 PM	0	0	5
1:30 PM	0	0	9
1:45 PM	0	0	9
2:00 PM	0	0	2
2:15 PM	0	0	3
2:30 PM	0	0	1
2:45 PM	0	0	4
3:00 PM	0	0	3
3:15 PM	0	0	8
3:30 PM	0	0	5
3:45 PM	0	0	5
4:00 PM	0	0	5
4:15 PM	0	0	4
4:30 PM	0	0	7
4:45 PM	0	0	2
5:00 PM	1	0	6
5:15 PM	0	0	9
5:30 PM	0	0	13
5:45 PM	0	0	8

Study Name **Location 13 Pine St & Lakeshore Blvd**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southeastbound			Lakeshore Blvd Northwestbound			Pine St Northeastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	7	0	11	0	0	0	2	0
6:15 AM	0	0	0	8	0	0	0	0	0
6:30 AM	0	2	0	13	0	0	0	7	0
6:45 AM	1	1	0	16	0	0	0	2	0
7:00 AM	1	3	0	13	0	0	0	5	0
7:15 AM	1	13	0	17	0	0	0	2	0
7:30 AM	1	13	0	27	1	0	1	1	0
7:45 AM	4	14	0	21	0	0	1	5	0
8:00 AM	1	15	0	27	0	0	0	7	1
8:15 AM	1	14	0	19	0	0	1	4	0
8:30 AM	2	14	0	22	0	0	0	5	0
8:45 AM	2	16	0	18	1	0	0	5	0
9:00 AM	2	23	0	14	0	0	0	4	0
9:15 AM	5	14	0	21	1	0	0	3	0
9:30 AM	3	34	0	19	0	0	0	8	0
9:45 AM	3	15	0	27	0	0	0	5	0
10:00 AM	3	34	0	20	0	0	1	4	0
10:15 AM	3	28	0	24	0	0	0	5	0
10:30 AM	4	30	0	24	0	0	0	4	0
10:45 AM	4	22	0	16	2	0	0	4	0
11:00 AM	4	24	0	22	1	0	0	5	0
11:15 AM	5	27	0	17	0	0	1	2	0
11:30 AM	5	25	0	29	2	0	0	2	0
11:45 AM	5	34	0	32	2	0	1	8	0
12:00 PM	5	37	0	33	0	0	0	6	0
12:15 PM	4	18	0	31	0	0	0	6	0
12:30 PM	6	30	0	41	1	1	0	10	0
12:45 PM	8	28	0	43	3	0	1	11	0
1:00 PM	5	29	0	57	0	0	0	7	0
1:15 PM	5	44	0	34	0	0	1	15	0
1:30 PM	9	33	0	46	1	0	0	9	0
1:45 PM	7	42	0	42	0	0	1	3	0
2:00 PM	6	32	0	38	2	0	0	2	0
2:15 PM	7	44	0	34	0	0	0	9	0
2:30 PM	5	36	0	38	4	0	0	10	0
2:45 PM	13	36	0	41	0	0	1	5	0
3:00 PM	8	42	0	41	1	0	1	8	0
3:15 PM	7	48	0	43	0	0	1	13	0
3:30 PM	10	41	0	38	1	0	2	9	0
3:45 PM	13	52	0	33	1	0	0	14	0
4:00 PM	16	61	0	38	0	0	1	12	0
4:15 PM	14	42	0	38	1	0	1	12	0
4:30 PM	7	56	0	34	1	0	0	10	0
4:45 PM	12	44	0	37	2	0	1	19	0
5:00 PM	15	54	0	40	3	1	1	15	0
5:15 PM	8	73	0	29	0	0	0	14	0
5:30 PM	6	48	0	30	2	0	1	8	0
5:45 PM	12	46	0	44	0	0	1	10	0

Study Name **Location 14 Pine St & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Fair Ave Westbound				Pine St Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	0	0	0	0	2	0	0	0	3	0	0	0	3	2	0
6:15 AM	0	0	0	0	0	2	0	0	0	1	2	0	0	4	4	0
6:30 AM	1	0	0	0	0	4	1	0	2	3	4	0	0	2	2	0
6:45 AM	1	1	0	0	1	8	2	0	1	3	2	0	0	5	2	0
7:00 AM	4	1	1	0	1	10	0	0	1	2	5	0	0	5	2	0
7:15 AM	1	0	0	0	0	6	1	0	0	0	8	0	1	8	0	0
7:30 AM	2	0	2	0	1	10	0	0	0	4	2	0	4	6	1	0
7:45 AM	5	1	1	0	0	16	0	0	0	4	10	0	0	10	3	0
8:00 AM	0	2	1	0	1	13	1	0	2	4	2	0	2	7	4	0
8:15 AM	0	1	1	0	1	15	0	0	0	2	2	0	2	16	3	0
8:30 AM	5	1	1	0	0	13	1	0	1	1	4	0	3	11	3	0
8:45 AM	1	1	2	0	1	19	0	0	2	2	7	0	7	13	5	0
9:00 AM	2	2	0	0	1	8	0	0	3	4	6	0	2	21	1	0
9:15 AM	5	0	0	0	0	10	0	0	4	1	2	0	3	12	2	0
9:30 AM	2	0	0	0	0	13	2	0	2	7	5	0	2	12	4	0
9:45 AM	2	5	0	0	3	11	3	0	1	2	6	0	5	16	4	0
10:00 AM	5	1	1	0	2	15	1	0	1	1	5	0	2	21	3	0
10:15 AM	2	1	0	0	2	10	4	0	7	2	2	0	3	22	3	0
10:30 AM	3	2	0	0	2	18	1	0	0	1	4	0	4	13	1	1
10:45 AM	8	3	3	0	1	22	1	0	0	3	7	0	5	13	1	0
11:00 AM	5	1	0	0	0	6	3	0	2	4	2	0	5	18	2	0
11:15 AM	3	1	1	0	1	18	0	0	1	0	1	0	3	18	3	0
11:30 AM	9	6	2	0	1	21	2	0	0	1	8	0	9	11	2	0
11:45 AM	3	3	1	0	2	19	0	0	2	5	2	0	2	23	3	1
12:00 PM	4	2	1	0	0	16	0	0	1	2	2	0	5	28	6	0
12:15 PM	10	2	2	0	0	11	1	0	2	1	4	0	10	21	3	0
12:30 PM	6	3	0	0	0	24	2	0	1	4	5	0	3	30	3	0
12:45 PM	7	3	0	0	1	24	0	0	3	5	5	0	2	26	10	0
1:00 PM	8	0	0	0	1	21	1	0	2	2	3	0	6	33	4	0
1:15 PM	7	1	1	0	2	29	1	0	2	7	6	0	8	31	6	0
1:30 PM	8	4	0	0	0	17	0	0	2	3	7	0	6	12	5	0
1:45 PM	5	2	0	0	1	26	0	0	3	2	3	0	5	19	2	0
2:00 PM	9	2	2	0	1	15	2	0	1	1	5	0	3	20	2	0
2:15 PM	11	2	0	0	2	21	0	0	3	4	3	0	4	17	4	0
2:30 PM	12	1	0	0	0	20	0	0	1	4	3	0	5	35	8	0
2:45 PM	6	7	1	0	0	24	0	0	0	7	8	0	5	20	2	0
3:00 PM	7	3	0	0	3	21	2	0	2	3	4	0	5	20	5	0
3:15 PM	7	1	2	0	0	19	0	0	0	8	11	0	5	18	10	0
3:30 PM	9	2	1	0	1	21	2	0	1	5	6	0	5	27	4	0
3:45 PM	14	9	1	0	2	18	3	0	3	4	5	0	1	22	7	0
4:00 PM	11	3	1	0	0	19	3	0	2	6	6	0	8	29	9	0
4:15 PM	18	9	0	0	0	18	0	0	2	2	8	0	13	37	9	0
4:30 PM	11	6	1	0	1	23	0	0	2	1	6	0	7	27	11	0
4:45 PM	7	6	4	0	2	22	0	0	6	9	6	0	9	29	9	0
5:00 PM	11	11	3	0	4	21	4	0	2	6	5	0	6	39	8	0
5:15 PM	11	7	1	0	1	23	1	0	8	11	9	0	4	35	5	0
5:30 PM	13	3	1	0	2	33	1	0	4	1	5	0	6	27	3	0
5:45 PM	11	3	3	0	0	27	3	0	6	3	5	0	1	27	8	0

Study Name **Location 14 Pine St & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Fair Ave Westbound				Pine St Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	1	0	1	0	2	1	0	0
8:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
10:15 AM	2	0	0	0	0	0	1	0	0	0	0	0	0	2	1	0
10:30 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0
10:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
11:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	2	0	0	0	0	0	0	0	0	0	1	0	1	3	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 14 Pine St & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Fair Ave Westbound				Pine St Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 14 Pine St & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Crossing North Leg	Fair Ave Crossing East Leg	Pine St Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	4	0	1	0
6:15 AM	0	0	0	0
6:30 AM	0	0	1	0
6:45 AM	1	0	0	0
7:00 AM	2	0	0	0
7:15 AM	1	0	2	3
7:30 AM	1	0	0	0
7:45 AM	0	0	1	0
8:00 AM	2	0	0	1
8:15 AM	5	0	2	1
8:30 AM	0	0	0	1
8:45 AM	3	0	0	2
9:00 AM	4	0	1	1
9:15 AM	0	1	2	0
9:30 AM	0	0	3	0
9:45 AM	3	0	1	0
10:00 AM	1	1	1	0
10:15 AM	0	0	2	1
10:30 AM	1	1	1	1
10:45 AM	0	0	0	0
11:00 AM	1	0	0	2
11:15 AM	3	0	1	0
11:30 AM	0	0	3	1
11:45 AM	1	0	1	1
12:00 PM	2	0	2	1
12:15 PM	2	0	1	0
12:30 PM	0	0	4	0
12:45 PM	1	1	0	0
1:00 PM	0	0	0	0
1:15 PM	1	0	1	0
1:30 PM	1	1	2	0
1:45 PM	0	1	0	1
2:00 PM	3	0	1	1
2:15 PM	3	0	0	0
2:30 PM	3	0	2	1
2:45 PM	0	1	5	2
3:00 PM	5	0	1	0
3:15 PM	16	0	2	0
3:30 PM	3	1	4	0
3:45 PM	2	1	4	0
4:00 PM	7	7	1	0
4:15 PM	6	0	0	2
4:30 PM	10	1	5	1
4:45 PM	2	1	4	0
5:00 PM	7	1	0	0
5:15 PM	8	0	0	3
5:30 PM	5	0	2	1
5:45 PM	4	3	0	0

Study Name **Location 14 Pine St & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Crossing North Leg	Fair Ave Crossing East Leg	Pine St Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	1	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	1	0	0	0
8:15 AM	0	0	0	1
8:30 AM	0	0	0	0
8:45 AM	2	0	0	1
9:00 AM	0	0	0	0
9:15 AM	0	0	0	2
9:30 AM	3	0	0	0
9:45 AM	2	0	0	1
10:00 AM	4	1	0	0
10:15 AM	0	0	0	0
10:30 AM	1	0	0	0
10:45 AM	1	0	0	0
11:00 AM	0	1	0	1
11:15 AM	0	0	0	0
11:30 AM	2	2	0	0
11:45 AM	2	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	1	0	0	1
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	1	0	1	0
1:45 PM	7	0	1	1
2:00 PM	0	0	1	0
2:15 PM	0	0	1	0
2:30 PM	0	0	0	1
2:45 PM	0	0	0	2
3:00 PM	0	0	0	0
3:15 PM	1	0	0	0
3:30 PM	1	0	0	0
3:45 PM	1	0	1	0
4:00 PM	1	3	0	2
4:15 PM	0	0	0	0
4:30 PM	3	0	0	0
4:45 PM	0	1	1	2
5:00 PM	2	0	1	1
5:15 PM	4	0	0	0
5:30 PM	2	0	3	1
5:45 PM	4	0	0	0

Study Name **Location 14 Pine St & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Fair Ave Westbound				Pine St Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	0	0	0	0	2	0	0	0	3	0	0	0	3	2	0
6:15 AM	0	0	0	0	0	2	0	0	0	1	2	0	0	5	4	0
6:30 AM	1	0	0	0	0	4	1	0	2	3	4	0	0	2	2	0
6:45 AM	1	1	0	0	1	8	2	0	1	3	2	0	0	5	2	0
7:00 AM	4	1	1	0	1	10	0	0	1	2	7	0	0	5	2	0
7:15 AM	1	0	0	0	0	6	1	0	0	0	8	0	1	8	0	0
7:30 AM	2	0	2	0	1	10	0	0	1	4	3	0	4	6	1	0
7:45 AM	5	1	1	0	0	16	0	0	0	4	10	0	0	10	3	0
8:00 AM	0	2	1	0	1	13	1	0	2	4	4	0	2	8	4	0
8:15 AM	0	1	1	0	2	15	0	0	0	2	2	0	2	16	3	0
8:30 AM	5	1	1	0	0	14	1	0	2	1	5	0	5	12	3	0
8:45 AM	2	1	2	0	1	20	0	0	2	2	7	0	7	13	5	0
9:00 AM	2	2	0	0	1	9	0	0	3	4	8	0	2	21	1	0
9:15 AM	5	0	0	0	0	10	0	0	4	1	2	0	3	12	2	0
9:30 AM	2	0	0	0	0	13	2	0	2	7	6	0	2	12	5	0
9:45 AM	2	5	0	0	3	11	3	0	1	2	6	0	5	18	4	0
10:00 AM	5	1	1	0	2	15	1	0	1	1	7	0	2	21	3	0
10:15 AM	4	1	0	0	2	11	5	0	7	2	2	0	3	24	4	0
10:30 AM	3	3	0	0	2	18	2	0	0	1	5	0	4	14	1	1
10:45 AM	8	3	3	0	1	23	1	0	0	3	7	0	5	15	1	0
11:00 AM	5	1	0	0	0	6	3	0	2	4	3	0	5	18	2	0
11:15 AM	4	1	1	0	1	19	0	0	1	1	1	0	3	19	3	0
11:30 AM	9	6	2	0	1	23	2	0	0	1	9	0	9	11	2	0
11:45 AM	3	3	1	0	2	20	0	0	2	5	2	0	2	23	3	1
12:00 PM	4	2	1	0	0	16	0	0	1	2	3	0	5	28	6	0
12:15 PM	10	2	2	0	0	11	1	0	2	1	4	0	10	21	3	0
12:30 PM	8	3	0	0	0	24	2	0	1	4	6	0	4	33	4	0
12:45 PM	7	3	0	0	1	24	0	0	3	5	5	0	2	26	10	0
1:00 PM	8	0	0	0	1	21	2	0	2	2	4	0	6	33	4	0
1:15 PM	7	1	1	0	2	29	1	0	2	7	6	0	8	31	6	0
1:30 PM	8	4	0	0	0	17	0	0	2	3	8	0	6	12	5	0
1:45 PM	5	2	0	0	1	26	0	0	3	2	3	0	5	20	2	0
2:00 PM	9	2	2	0	1	15	2	0	1	1	6	0	3	20	2	0
2:15 PM	11	2	0	0	2	21	0	0	3	4	4	0	4	17	4	0
2:30 PM	12	1	0	0	0	20	0	0	1	4	6	0	6	35	8	0
2:45 PM	6	7	1	0	0	24	0	0	0	7	8	0	5	20	2	0
3:00 PM	7	3	0	0	3	21	2	0	2	4	4	0	5	20	5	0
3:15 PM	7	1	2	0	0	19	0	0	1	8	13	0	5	18	10	0
3:30 PM	9	2	1	0	1	21	2	0	1	5	7	0	5	27	4	0
3:45 PM	16	9	1	0	2	19	3	0	3	4	5	0	1	24	7	0
4:00 PM	11	3	1	0	0	21	3	0	2	6	8	0	8	29	9	0
4:15 PM	18	9	0	0	0	18	1	0	2	2	8	0	13	38	9	0
4:30 PM	11	6	1	0	1	23	0	0	3	1	7	0	7	28	11	0
4:45 PM	7	6	4	0	2	22	0	0	6	9	6	0	9	29	9	0
5:00 PM	11	11	3	0	4	22	4	0	2	6	6	0	6	39	8	0
5:15 PM	11	7	1	0	1	23	1	0	8	11	9	0	4	35	5	0
5:30 PM	13	3	1	0	2	33	1	0	4	1	6	0	6	27	4	0
5:45 PM	11	3	3	0	0	27	3	0	6	3	5	0	1	27	8	0

Study Name **Location 15 Lakeshore Blvd & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Northwestbound			Fair Ave Eastbound			Lakeshore Blvd Southeastbound		
Start Time	Thru	Bear Left	U-Turn	Bear Right	Hard Left	U-Turn	Hard Right	Thru	U-Turn
6:00 AM	9	2	0	1	2	0	0	6	0
6:15 AM	7	1	0	0	0	0	0	0	0
6:30 AM	12	3	0	3	0	0	0	1	0
6:45 AM	13	3	0	5	1	0	1	0	0
7:00 AM	13	5	0	6	0	0	0	1	0
7:15 AM	16	4	0	5	1	0	1	12	0
7:30 AM	26	5	0	5	1	0	1	7	0
7:45 AM	19	7	0	4	0	0	1	10	0
8:00 AM	22	13	0	6	2	0	3	16	0
8:15 AM	18	14	0	7	4	0	1	12	0
8:30 AM	19	11	0	4	1	0	3	10	0
8:45 AM	17	15	0	3	1	0	2	12	0
9:00 AM	10	10	0	6	2	0	4	23	0
9:15 AM	18	7	0	6	2	0	0	13	0
9:30 AM	18	11	1	9	3	0	2	29	0
9:45 AM	19	10	0	3	4	0	1	14	0
10:00 AM	17	4	0	14	1	0	3	27	0
10:15 AM	21	14	0	7	3	0	2	29	0
10:30 AM	22	7	0	6	4	0	3	19	0
10:45 AM	13	13	0	9	3	0	2	26	0
11:00 AM	20	5	0	7	2	0	3	21	0
11:15 AM	16	8	0	13	1	0	3	16	0
11:30 AM	25	15	0	8	3	0	3	27	0
11:45 AM	29	8	0	13	7	0	4	30	0
12:00 PM	29	13	0	16	4	0	1	30	0
12:15 PM	30	15	0	15	3	0	2	18	0
12:30 PM	38	18	0	23	6	0	4	20	0
12:45 PM	39	11	0	18	5	0	2	29	0
1:00 PM	42	18	0	16	12	0	4	27	0
1:15 PM	26	21	0	18	6	0	9	32	0
1:30 PM	42	15	0	9	6	0	2	33	0
1:45 PM	36	19	0	8	5	0	4	34	0
2:00 PM	32	7	0	13	7	0	4	31	0
2:15 PM	31	13	0	10	2	0	1	39	0
2:30 PM	36	12	0	12	5	0	6	35	0
2:45 PM	38	16	0	8	4	0	3	28	0
3:00 PM	38	16	0	9	5	0	5	35	0
3:15 PM	38	8	0	10	3	0	8	40	0
3:30 PM	38	14	0	19	3	0	4	43	0
3:45 PM	27	10	0	10	3	0	4	45	0
4:00 PM	39	13	0	16	4	0	3	53	0
4:15 PM	31	10	0	16	9	0	7	43	0
4:30 PM	27	14	0	13	8	0	6	51	0
4:45 PM	42	11	0	19	4	0	6	37	0
5:00 PM	36	8	0	9	8	0	3	50	0
5:15 PM	26	7	0	12	3	0	8	66	0
5:30 PM	30	24	0	12	3	0	3	45	0
5:45 PM	38	19	0	19	7	0	8	40	0
6:00 PM	0	2	0	0	0	0	0	1	0

Study Name **Location 15 Lakeshore Blvd & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Northwestbound			Fair Ave Eastbound			Lakeshore Blvd Southeastbound		
Start Time	Thru	Bear Left	U-Turn	Bear Right	Hard Left	U-Turn	Hard Right	Thru	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	0	0	0	0
6:45 AM	1	0	0	0	0	0	0	1	0
7:00 AM	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	1	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	1	0
9:45 AM	0	1	0	1	1	0	0	1	0
10:00 AM	0	1	0	0	0	0	1	0	0
10:15 AM	1	0	0	2	0	0	0	1	0
10:30 AM	1	0	0	0	0	0	0	2	0
10:45 AM	0	0	0	0	1	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	1	0
11:30 AM	1	1	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	0	0	0	1	0
12:15 PM	0	1	0	0	0	0	0	0	0
12:30 PM	0	0	0	1	1	0	0	1	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	1	0	0	0	0	0	0	1	0
1:15 PM	1	0	0	0	0	0	0	1	0
1:30 PM	1	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	1	0
2:30 PM	1	0	0	0	0	0	0	1	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	1	0	0	0	2	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	1	3	0	0	2	0	0	0	0
4:00 PM	1	0	0	0	0	0	1	1	0
4:15 PM	1	0	0	1	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0
5:45 PM	1	0	0	0	0	0	0	1	0
6:00 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 15 Lakeshore Blvd & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Northwestbound			Fair Ave Eastbound			Lakeshore Blvd Southeastbound		
Start Time	Thru	Bear Left	U-Turn	Bear Right	Hard Left	U-Turn	Hard Right	Thru	U-Turn
6:00 AM	0	0	0	0	0	0	0	1	0
6:15 AM	1	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	1	0	0	0	0	0	0	0	0
7:00 AM	1	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	0	0
8:00 AM	2	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	1	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	1	0	0	0	0	0	0	1	0
10:00 AM	0	0	0	2	0	0	0	0	0
10:15 AM	0	3	0	1	0	0	0	1	0
10:30 AM	0	0	0	1	0	0	0	0	0
10:45 AM	0	1	0	0	1	0	0	1	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	1	0	0	0	0	0
11:30 AM	1	1	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	1	0
12:15 PM	1	0	0	0	0	0	0	0	0
12:30 PM	1	0	0	0	0	0	0	0	0
12:45 PM	1	0	0	0	0	0	0	0	0
1:00 PM	2	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	1	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	1	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	1	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	1	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	1	1	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 15 Lakeshore Blvd & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Northwestbound	Lakeshore Blvd Eastbound	Fair Ave Southeastbound
Start Time	Peds	Peds	Peds
6:00 AM	1	0	1
6:15 AM	1	0	2
6:30 AM	1	0	3
6:45 AM	0	0	2
7:00 AM	2	1	2
7:15 AM	0	0	4
7:30 AM	0	1	0
7:45 AM	2	0	2
8:00 AM	1	0	1
8:15 AM	0	1	2
8:30 AM	0	0	1
8:45 AM	2	0	0
9:00 AM	0	0	3
9:15 AM	2	2	3
9:30 AM	4	1	4
9:45 AM	2	0	4
10:00 AM	0	0	5
10:15 AM	1	1	2
10:30 AM	1	0	2
10:45 AM	0	1	1
11:00 AM	0	0	1
11:15 AM	0	1	1
11:30 AM	0	0	4
11:45 AM	0	0	4
12:00 PM	0	0	6
12:15 PM	1	0	3
12:30 PM	0	0	2
12:45 PM	0	0	1
1:00 PM	1	0	0
1:15 PM	2	0	2
1:30 PM	1	1	1
1:45 PM	1	1	4
2:00 PM	1	0	4
2:15 PM	0	0	2
2:30 PM	0	0	3
2:45 PM	0	0	2
3:00 PM	4	3	1
3:15 PM	1	0	7
3:30 PM	0	0	1
3:45 PM	0	0	7
4:00 PM	6	0	5
4:15 PM	4	0	8
4:30 PM	0	2	10
4:45 PM	5	2	9
5:00 PM	0	0	3
5:15 PM	3	2	3
5:30 PM	1	0	4
5:45 PM	1	1	2
6:00 PM	0	0	0

Study Name **Location 15 Lakeshore Blvd & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Northwestbound	Lakeshore Blvd Eastbound	Fair Ave Southeastbound
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	1
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	1	0
8:00 AM	0	0	1
8:15 AM	0	0	1
8:30 AM	0	0	5
8:45 AM	0	1	2
9:00 AM	0	0	3
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	5
10:15 AM	0	0	3
10:30 AM	0	0	0
10:45 AM	0	0	1
11:00 AM	0	0	1
11:15 AM	1	0	4
11:30 AM	0	0	0
11:45 AM	0	1	1
12:00 PM	0	0	1
12:15 PM	0	1	0
12:30 PM	0	0	2
12:45 PM	0	1	6
1:00 PM	1	1	6
1:15 PM	1	0	7
1:30 PM	0	0	6
1:45 PM	0	3	10
2:00 PM	0	0	3
2:15 PM	0	1	1
2:30 PM	0	0	2
2:45 PM	0	1	2
3:00 PM	0	0	3
3:15 PM	0	0	10
3:30 PM	0	0	2
3:45 PM	0	1	6
4:00 PM	0	0	6
4:15 PM	0	1	5
4:30 PM	1	4	3
4:45 PM	0	0	5
5:00 PM	1	1	8
5:15 PM	1	0	6
5:30 PM	0	0	11
5:45 PM	0	2	11
6:00 PM	0	0	0

Study Name **Location 15 Lakeshore Blvd & Fair Ave**
Date **10/01/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Northwestbound			Fair Ave Eastbound			Lakeshore Blvd Southeastbound		
Start Time	Thru	Bear Left	U-Turn	Bear Right	Hard Left	U-Turn	Hard Right	Thru	U-Turn
6:00 AM	9	2	0	1	2	0	0	7	0
6:15 AM	8	1	0	0	0	0	0	0	0
6:30 AM	13	3	0	3	0	0	0	1	0
6:45 AM	15	3	0	5	1	0	1	1	0
7:00 AM	14	5	0	6	0	0	0	2	0
7:15 AM	16	4	0	5	1	0	1	12	0
7:30 AM	27	5	0	6	1	0	1	7	0
7:45 AM	20	7	0	4	0	0	1	10	0
8:00 AM	24	13	0	6	2	0	3	16	0
8:15 AM	18	15	0	7	4	0	1	12	0
8:30 AM	19	11	0	4	1	0	3	11	0
8:45 AM	17	15	0	3	1	0	2	12	0
9:00 AM	11	10	0	6	2	0	4	23	0
9:15 AM	19	7	0	6	2	0	0	13	0
9:30 AM	18	11	1	9	3	0	2	30	0
9:45 AM	20	11	0	4	5	0	1	16	0
10:00 AM	17	5	0	16	1	0	4	27	0
10:15 AM	22	17	0	10	3	0	2	31	0
10:30 AM	23	7	0	7	4	0	3	21	0
10:45 AM	13	14	0	9	5	0	2	27	0
11:00 AM	20	6	0	7	2	0	3	21	0
11:15 AM	17	8	0	14	1	0	3	17	0
11:30 AM	27	17	0	8	3	0	3	27	0
11:45 AM	29	8	0	13	7	0	5	30	0
12:00 PM	29	13	0	16	4	0	1	32	0
12:15 PM	31	16	0	15	3	0	2	18	0
12:30 PM	39	18	0	24	7	0	4	21	0
12:45 PM	40	11	0	18	5	0	2	29	0
1:00 PM	45	18	0	16	12	0	4	28	0
1:15 PM	27	21	0	18	6	0	9	33	0
1:30 PM	43	15	0	9	6	0	2	34	0
1:45 PM	36	19	0	8	5	0	4	34	0
2:00 PM	33	7	0	13	7	0	4	31	0
2:15 PM	32	13	0	10	2	0	1	40	0
2:30 PM	37	12	0	13	5	0	6	36	0
2:45 PM	38	16	0	8	4	0	3	28	0
3:00 PM	38	16	0	9	5	0	5	36	0
3:15 PM	38	8	0	11	3	0	8	42	0
3:30 PM	38	14	0	19	3	0	4	43	0
3:45 PM	28	13	0	11	5	0	4	45	0
4:00 PM	40	13	0	16	4	0	4	54	0
4:15 PM	32	10	0	17	9	0	8	43	0
4:30 PM	27	14	0	13	8	0	6	52	0
4:45 PM	42	11	0	19	4	0	6	37	0
5:00 PM	37	9	0	9	8	0	3	51	0
5:15 PM	26	7	0	12	3	0	8	66	0
5:30 PM	30	24	0	12	3	0	3	46	0
5:45 PM	39	19	0	19	7	0	8	41	0
6:00 PM	0	2	0	0	0	0	0	1	0

Study Name **Location 16 Presque Isle Ave & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound			Fair Ave Westbound			Presque Isle Ave Northbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	9	11	0	8	3	0	10	4	0
6:15 AM	9	11	0	19	1	0	8	6	0
6:30 AM	11	12	0	24	7	0	0	20	0
6:45 AM	17	18	0	22	1	0	8	29	0
7:00 AM	13	18	0	21	8	0	9	12	0
7:15 AM	22	20	0	28	13	0	14	13	0
7:30 AM	24	20	0	30	8	0	11	23	0
7:45 AM	27	32	0	30	9	0	14	42	0
8:00 AM	17	17	0	28	12	0	8	26	0
8:15 AM	27	20	0	22	8	0	7	12	0
8:30 AM	20	27	0	31	8	0	15	24	0
8:45 AM	40	41	0	32	17	0	23	41	0
9:00 AM	15	23	0	21	6	0	12	23	0
9:15 AM	14	20	0	27	3	0	8	25	0
9:30 AM	18	40	0	39	20	0	20	27	0
9:45 AM	30	36	0	56	27	0	33	32	0
10:00 AM	28	28	0	29	5	0	9	30	0
10:15 AM	19	16	0	33	4	0	11	32	0
10:30 AM	25	29	0	36	13	0	17	21	0
10:45 AM	28	34	0	40	17	0	16	37	0
11:00 AM	22	45	0	27	10	0	14	29	0
11:15 AM	38	42	0	43	14	0	12	37	0
11:30 AM	45	59	0	57	16	0	11	46	0
11:45 AM	47	65	0	59	20	0	40	46	0
12:00 PM	50	52	0	67	13	0	21	63	0
12:15 PM	46	41	0	48	8	0	17	40	0
12:30 PM	63	54	0	52	12	0	11	50	0
12:45 PM	40	61	0	57	29	0	22	47	0
1:00 PM	37	42	0	57	15	0	17	42	0
1:15 PM	37	45	0	37	10	0	21	44	0
1:30 PM	49	49	0	53	11	0	30	46	0
1:45 PM	41	63	0	53	19	0	18	58	0
2:00 PM	47	59	0	40	16	0	12	36	0
2:15 PM	45	53	0	44	11	0	26	39	0
2:30 PM	34	51	0	53	19	0	24	47	0
2:45 PM	54	53	0	43	21	0	23	48	0
3:00 PM	44	45	0	51	12	0	15	50	0
3:15 PM	52	53	0	39	16	0	25	50	0
3:30 PM	48	71	0	42	14	0	35	55	0
3:45 PM	54	79	0	60	17	0	31	56	0
4:00 PM	52	79	0	53	13	0	23	48	0
4:15 PM	40	58	0	67	6	0	21	39	0
4:30 PM	32	74	0	41	14	0	13	51	0
4:45 PM	54	56	0	48	17	0	22	49	0
5:00 PM	63	80	0	78	16	0	16	74	0
5:15 PM	44	75	0	56	12	0	21	70	0
5:30 PM	54	62	0	65	29	0	40	55	0
5:45 PM	49	59	0	62	28	0	35	51	0

Study Name **Location 16 Presque Isle Ave & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound			Fair Ave Westbound			Presque Isle Ave Northbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	1	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	1	1	0	0	0	0
6:45 AM	2	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	2	1	0	1	0	0	0	2	0
8:15 AM	0	0	0	0	0	0	2	3	0
8:30 AM	1	0	0	1	0	0	0	0	0
8:45 AM	1	0	0	2	0	0	1	1	0
9:00 AM	0	1	0	1	0	0	1	1	0
9:15 AM	0	1	0	2	0	0	1	2	0
9:30 AM	2	0	0	1	0	0	2	0	0
9:45 AM	2	1	0	0	0	0	2	1	0
10:00 AM	1	0	0	2	0	0	2	0	0
10:15 AM	0	0	0	2	0	0	1	1	0
10:30 AM	0	2	0	2	1	0	2	1	0
10:45 AM	0	0	0	0	0	0	1	0	0
11:00 AM	1	1	0	1	0	0	0	5	0
11:15 AM	0	2	0	1	0	0	0	2	0
11:30 AM	3	1	0	2	0	0	2	0	0
11:45 AM	1	1	0	2	0	0	3	5	0
12:00 PM	0	1	0	2	0	0	2	0	0
12:15 PM	0	0	0	0	0	0	2	0	0
12:30 PM	0	0	0	1	0	0	2	1	0
12:45 PM	0	2	0	0	0	0	1	0	0
1:00 PM	1	0	0	2	0	0	1	0	0
1:15 PM	0	0	0	0	0	0	1	1	0
1:30 PM	0	1	0	2	0	0	1	0	0
1:45 PM	1	1	0	3	0	0	2	1	0
2:00 PM	1	1	0	2	0	0	2	0	0
2:15 PM	2	0	0	1	0	0	1	1	0
2:30 PM	2	2	0	2	0	0	3	0	0
2:45 PM	0	1	0	0	0	0	0	1	0
3:00 PM	0	0	0	3	0	0	2	3	0
3:15 PM	0	1	0	2	0	0	0	0	0
3:30 PM	0	0	0	3	0	0	4	0	0
3:45 PM	0	1	0	2	0	0	1	2	0
4:00 PM	1	3	0	1	0	0	4	2	0
4:15 PM	0	1	0	1	0	0	1	0	0
4:30 PM	0	0	0	1	0	0	2	2	0
4:45 PM	0	0	0	1	0	0	3	1	0
5:00 PM	1	0	0	0	0	0	2	1	0
5:15 PM	0	0	0	2	0	0	0	1	0
5:30 PM	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Location 16.xls

Study Name **Location 16 Presque Isle Ave & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound			Fair Ave Westbound			Presque Isle Ave Northbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	1	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0
7:00 AM	1	0	0	0	1	0	0	1	0
7:15 AM	0	0	0	1	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0
8:45 AM	0	1	0	1	0	0	0	0	0
9:00 AM	1	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	1	0	0	0	0	0
9:30 AM	0	1	0	1	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0
10:00 AM	0	0	0	1	0	0	0	0	0
10:15 AM	0	0	0	1	0	0	0	0	0
10:30 AM	0	0	0	1	0	0	0	0	0
10:45 AM	0	0	0	1	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	1	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	1	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	2	0	0	0	0	0
2:15 PM	0	0	0	1	0	0	1	0	0
2:30 PM	0	1	0	0	0	0	0	0	0
2:45 PM	1	0	0	1	0	0	0	1	0
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0

Study Name **Location 16 Presque Isle Ave & Fair A**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Fair Ave Crossing East Leg	Presque Isle Ave Crossing South Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	1	0	0
6:45 AM	0	0	0
7:00 AM	1	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	2	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	2	1	0
8:45 AM	1	0	1
9:00 AM	0	1	0
9:15 AM	0	0	0
9:30 AM	1	3	2
9:45 AM	0	3	1
10:00 AM	2	1	0
10:15 AM	0	0	1
10:30 AM	0	1	0
10:45 AM	1	1	1
11:00 AM	1	1	0
11:15 AM	3	0	3
11:30 AM	0	0	4
11:45 AM	0	0	1
12:00 PM	0	1	0
12:15 PM	1	0	2
12:30 PM	1	3	0
12:45 PM	2	0	0
1:00 PM	1	1	0
1:15 PM	2	1	0
1:30 PM	2	3	0
1:45 PM	2	0	0
2:00 PM	0	0	0
2:15 PM	2	0	0
2:30 PM	2	2	1
2:45 PM	0	2	1
3:00 PM	1	0	0
3:15 PM	0	1	1
3:30 PM	2	0	0
3:45 PM	1	2	1
4:00 PM	3	4	3
4:15 PM	2	2	1
4:30 PM	4	2	0
4:45 PM	2	2	2
5:00 PM	1	1	0
5:15 PM	1	1	4
5:30 PM	2	0	5
5:45 PM	3	4	2

Study Name **Location 16 Presque Isle Ave & Fair A**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Fair Ave Crossing East Leg	Presque Isle Ave Crossing South Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	1
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	1	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	1	0
2:30 PM	0	0	0
2:45 PM	0	1	1
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	2	0
4:30 PM	0	0	2
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	1	0
5:30 PM	0	0	0
5:45 PM	0	1	0

Study Name **Location 16 Presque Isle Ave & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound			Fair Ave Westbound			Presque Isle Ave Northbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	11	11	0	8	3	0	10	4	0
6:15 AM	10	11	0	19	1	0	8	6	0
6:30 AM	12	13	0	25	8	0	0	20	0
6:45 AM	19	19	0	22	1	0	8	29	0
7:00 AM	14	18	0	22	9	0	9	13	0
7:15 AM	22	20	0	29	13	0	14	13	0
7:30 AM	26	20	0	30	8	0	11	23	0
7:45 AM	27	32	0	30	9	0	14	42	0
8:00 AM	20	18	0	29	12	0	8	28	0
8:15 AM	27	20	0	23	8	0	9	15	0
8:30 AM	21	27	0	32	8	0	15	25	0
8:45 AM	41	42	0	35	17	0	24	42	0
9:00 AM	16	24	0	22	6	0	13	24	0
9:15 AM	14	22	0	30	3	0	9	27	0
9:30 AM	20	41	0	41	20	0	22	27	0
9:45 AM	32	38	0	56	27	0	35	33	0
10:00 AM	29	28	0	32	5	0	11	30	0
10:15 AM	19	16	0	36	4	0	12	33	0
10:30 AM	25	31	0	39	14	0	19	22	0
10:45 AM	28	34	0	41	17	0	17	37	0
11:00 AM	23	46	0	28	10	0	14	34	0
11:15 AM	38	44	0	44	14	0	12	39	0
11:30 AM	48	60	0	60	16	0	13	46	0
11:45 AM	48	66	0	61	20	0	43	51	0
12:00 PM	50	53	0	70	13	0	23	63	0
12:15 PM	46	41	0	48	8	0	19	40	0
12:30 PM	63	54	0	53	12	0	13	51	0
12:45 PM	40	63	0	58	29	0	23	47	0
1:00 PM	38	42	0	59	15	0	18	42	0
1:15 PM	37	46	0	37	10	0	22	45	0
1:30 PM	49	50	0	55	11	0	31	46	0
1:45 PM	42	64	0	56	19	0	20	59	0
2:00 PM	48	60	0	44	16	0	14	36	0
2:15 PM	47	53	0	46	11	0	28	40	0
2:30 PM	36	54	0	55	19	0	27	47	0
2:45 PM	55	54	0	44	21	0	23	50	0
3:00 PM	44	45	0	54	12	0	17	53	0
3:15 PM	52	54	0	41	16	0	25	50	0
3:30 PM	48	71	0	45	14	0	39	55	0
3:45 PM	54	80	0	62	17	0	32	58	0
4:00 PM	53	82	0	54	13	0	27	50	0
4:15 PM	40	59	0	68	6	0	22	39	0
4:30 PM	32	74	0	42	14	0	15	53	0
4:45 PM	54	57	0	49	17	0	25	50	0
5:00 PM	64	80	0	78	16	0	18	75	0
5:15 PM	44	75	0	58	12	0	21	71	0
5:30 PM	54	62	0	66	29	0	40	55	0
5:45 PM	49	60	0	62	28	0	35	51	0

Study Name **Location 17 3rd St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	College Campus Lots Southbound				Fair Ave Westbound				3rd St Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	1	5	2	0	1	4	5	0	4	6	8	0
6:15 AM	0	1	1	0	0	9	2	0	2	4	4	0	5	5	8	0
6:30 AM	0	1	0	0	2	21	0	0	0	2	5	0	6	2	1	0
6:45 AM	0	2	1	0	1	14	5	0	3	5	5	0	8	12	4	0
7:00 AM	1	7	0	0	2	17	6	0	1	6	8	0	11	6	6	0
7:15 AM	7	6	0	0	1	21	4	0	3	5	11	0	14	11	6	0
7:30 AM	18	7	0	0	4	10	6	0	2	5	10	0	9	11	3	0
7:45 AM	6	7	1	0	12	23	4	0	2	6	7	1	16	13	13	0
8:00 AM	0	7	0	0	1	17	8	0	3	1	16	0	9	5	4	0
8:15 AM	3	3	0	0	0	17	6	0	2	2	8	0	16	7	5	0
8:30 AM	7	6	0	0	4	17	3	0	2	6	7	0	11	9	15	0
8:45 AM	8	13	3	0	10	25	7	0	3	17	12	0	24	11	29	0
9:00 AM	2	2	1	0	5	13	11	0	6	5	11	0	17	9	4	0
9:15 AM	0	5	0	0	3	10	6	0	8	2	17	0	10	19	1	0
9:30 AM	13	17	1	0	3	21	6	0	8	6	17	0	18	16	16	0
9:45 AM	32	18	3	0	10	23	11	0	7	17	23	0	26	11	33	0
10:00 AM	1	7	1	0	5	21	10	0	8	4	14	0	17	10	10	0
10:15 AM	4	5	0	0	2	17	6	0	4	5	14	0	9	14	5	0
10:30 AM	3	7	0	0	1	22	9	0	4	3	19	0	16	17	13	0
10:45 AM	13	20	1	0	5	21	13	0	2	9	16	0	19	12	15	0
11:00 AM	3	12	2	0	0	15	14	0	7	4	15	0	29	18	5	0
11:15 AM	9	8	1	0	2	23	11	0	9	5	30	0	27	23	3	0
11:30 AM	14	13	2	0	6	35	16	0	8	4	25	0	39	17	11	0
11:45 AM	22	14	1	0	4	27	20	0	10	12	23	0	35	20	44	0
12:00 PM	11	10	3	0	1	28	8	0	13	5	29	0	36	24	17	0
12:15 PM	3	11	4	0	5	26	8	0	14	4	24	0	36	15	9	0
12:30 PM	5	5	0	0	3	31	20	0	15	8	26	0	35	18	8	0
12:45 PM	24	18	0	0	7	31	10	0	17	11	25	0	36	26	17	0
1:00 PM	6	10	2	0	0	30	12	0	7	6	32	0	27	21	9	0
1:15 PM	7	6	1	0	3	21	11	0	6	5	18	0	26	27	10	0
1:30 PM	11	15	0	0	1	20	11	0	10	10	34	0	27	25	22	0
1:45 PM	22	7	1	0	3	30	13	0	8	5	18	0	34	23	18	0
2:00 PM	8	13	2	0	3	25	12	0	9	4	18	0	39	22	8	0
2:15 PM	2	9	0	0	2	24	12	0	13	3	22	0	34	32	8	0
2:30 PM	13	13	1	0	5	27	12	0	12	13	32	0	35	29	7	0
2:45 PM	5	12	1	0	4	37	16	0	14	13	21	0	42	21	14	0
3:00 PM	6	7	2	0	2	28	11	0	8	2	29	0	32	22	5	0
3:15 PM	12	4	3	0	2	19	10	0	15	2	26	0	38	17	17	0
3:30 PM	8	16	1	0	3	31	18	0	8	6	16	0	32	44	23	0
3:45 PM	4	8	2	0	2	36	14	0	11	2	28	0	52	33	27	0
4:00 PM	8	7	2	0	2	24	12	0	10	8	27	0	52	39	10	0
4:15 PM	9	10	3	0	1	32	15	0	9	2	30	0	27	37	7	0
4:30 PM	2	14	3	0	2	26	16	0	12	7	24	0	40	33	14	0
4:45 PM	13	18	2	0	7	38	21	0	17	4	18	0	27	32	13	0
5:00 PM	5	7	2	0	1	39	8	0	21	1	41	0	44	42	7	0
5:15 PM	11	10	4	0	3	33	15	0	17	5	26	0	42	45	11	0
5:30 PM	28	28	2	0	7	35	21	0	21	15	34	0	34	37	27	0
5:45 PM	31	18	5	0	6	33	13	0	14	12	19	0	41	35	28	0

Study Name **Location 17 3rd St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	College Campus Lots Southbound				Fair Ave Westbound				3rd St Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
8:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
8:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
9:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	2	0
9:15 AM	0	0	0	0	0	0	0	0	1	0	2	0	1	1	3	0
9:30 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	2	0
9:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0
10:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0
10:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	1	1	1	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	2	0	2	0
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0
12:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0
12:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
1:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	2	1	0
1:45 PM	0	0	0	0	0	3	0	0	0	0	1	0	1	1	2	0
2:00 PM	0	0	0	0	0	2	0	0	1	0	1	0	0	1	2	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
2:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	2	0
2:45 PM	0	1	0	0	0	1	0	0	1	0	0	0	1	0	1	0
3:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	2	0
3:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	1	3	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	2	0
4:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0
4:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	3	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 17 3rd St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	College Campus Lots Southbound				Fair Ave Westbound				3rd St Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
9:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

Study Name **Location 17 3rd St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	College Campus Lots Crossing North Leg	Fair Ave Crossing East leg	3rd St Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	1
6:15 AM	0	8	0	0
6:30 AM	21	0	0	2
6:45 AM	0	2	0	1
7:00 AM	0	0	1	0
7:15 AM	1	0	1	0
7:30 AM	1	1	0	0
7:45 AM	0	0	0	0
8:00 AM	0	1	0	0
8:15 AM	0	1	0	0
8:30 AM	1	0	0	0
8:45 AM	0	0	0	0
9:00 AM	1	1	1	0
9:15 AM	2	0	1	0
9:30 AM	0	0	1	0
9:45 AM	1	1	1	0
10:00 AM	0	0	0	3
10:15 AM	3	3	0	0
10:30 AM	0	0	1	1
10:45 AM	1	0	0	3
11:00 AM	0	0	0	0
11:15 AM	0	0	1	3
11:30 AM	0	0	1	3
11:45 AM	1	0	2	1
12:00 PM	1	2	1	2
12:15 PM	0	0	4	1
12:30 PM	1	2	3	3
12:45 PM	3	4	2	0
1:00 PM	2	1	0	1
1:15 PM	3	0	1	0
1:30 PM	1	0	0	0
1:45 PM	0	0	0	2
2:00 PM	2	0	0	0
2:15 PM	3	1	0	0
2:30 PM	2	0	0	1
2:45 PM	0	0	2	1
3:00 PM	2	0	0	0
3:15 PM	0	1	0	1
3:30 PM	1	3	1	1
3:45 PM	1	2	0	1
4:00 PM	2	0	1	0
4:15 PM	2	0	1	0
4:30 PM	1	2	0	1
4:45 PM	0	3	2	0
5:00 PM	0	2	0	2
5:15 PM	3	1	2	1
5:30 PM	1	2	0	3
5:45 PM	4	1	3	7

Study Name **Location 17 3rd St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	College Campus Lots Crossing North Leg	Fair Ave Crossing East leg	3rd St Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	1	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	1	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	1	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	2
11:00 AM	1	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	1	0	0	0
12:00 PM	0	0	0	0
12:15 PM	1	0	0	1
12:30 PM	0	0	0	0
12:45 PM	3	2	0	0
1:00 PM	0	0	0	4
1:15 PM	15	4	5	13
1:30 PM	0	1	2	1
1:45 PM	1	0	1	2
2:00 PM	1	0	0	1
2:15 PM	1	0	0	0
2:30 PM	0	0	0	1
2:45 PM	0	0	2	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	5	0	2	0
3:45 PM	0	0	0	0
4:00 PM	3	0	0	0
4:15 PM	2	0	1	0
4:30 PM	4	1	0	2
4:45 PM	1	0	2	1
5:00 PM	2	0	0	0
5:15 PM	0	0	0	0
5:30 PM	2	0	0	1
5:45 PM	1	0	1	0

Study Name **Location 17 3rd St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	College Campus Lots Southbound				Fair Ave Westbound				3rd St Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	1	5	2	0	1	4	5	0	4	6	8	0
6:15 AM	0	1	1	0	0	9	3	0	2	4	4	0	5	5	8	0
6:30 AM	0	1	0	0	2	22	0	0	0	2	5	0	6	2	1	0
6:45 AM	0	2	1	0	1	14	5	0	3	6	5	0	9	12	4	0
7:00 AM	1	8	0	0	3	18	6	0	1	6	8	0	11	6	6	0
7:15 AM	7	6	0	0	1	23	4	0	3	5	11	0	14	11	6	0
7:30 AM	18	7	0	0	4	10	6	0	2	5	10	0	10	11	4	0
7:45 AM	6	7	1	0	12	23	4	0	2	6	8	1	16	13	14	0
8:00 AM	0	7	0	0	1	18	8	0	3	1	17	0	9	5	6	0
8:15 AM	3	3	0	0	0	18	6	0	2	2	8	0	18	7	5	0
8:30 AM	7	6	0	0	4	19	3	0	2	6	7	0	11	9	16	0
8:45 AM	8	13	3	0	10	26	7	0	3	17	12	0	25	11	31	0
9:00 AM	2	2	1	0	5	15	11	0	6	6	11	0	18	9	6	0
9:15 AM	0	5	0	0	3	11	6	0	9	2	19	0	12	20	4	0
9:30 AM	13	18	1	0	3	24	7	0	8	6	17	0	19	16	18	0
9:45 AM	32	18	3	0	10	23	12	0	7	17	23	0	26	13	34	0
10:00 AM	1	7	1	0	5	23	10	0	8	4	14	0	17	10	12	0
10:15 AM	4	5	0	0	2	17	6	0	4	5	17	0	9	14	6	0
10:30 AM	3	7	0	0	1	26	9	0	4	3	19	0	17	18	14	0
10:45 AM	13	20	1	0	5	22	13	0	2	9	17	0	19	13	16	0
11:00 AM	3	12	2	0	0	16	14	0	7	4	15	0	31	18	7	0
11:15 AM	9	8	1	0	2	23	12	0	9	5	30	0	27	24	3	0
11:30 AM	14	13	2	0	6	37	16	0	8	4	25	0	39	17	13	0
11:45 AM	22	14	1	0	4	28	20	0	10	12	23	0	35	20	45	0
12:00 PM	12	10	3	0	1	29	8	0	13	5	31	0	37	24	19	0
12:15 PM	3	11	4	0	5	26	9	0	14	4	24	0	36	16	10	0
12:30 PM	5	5	0	0	3	32	20	0	15	8	26	0	35	18	10	0
12:45 PM	24	18	0	0	7	32	11	0	17	11	25	0	37	27	18	0
1:00 PM	6	10	2	0	0	34	12	0	7	6	32	0	27	21	10	0
1:15 PM	7	6	1	0	3	21	11	0	6	5	18	0	27	28	11	0
1:30 PM	11	15	0	0	1	21	11	0	10	10	35	0	28	27	23	0
1:45 PM	22	7	1	0	3	33	13	0	8	5	19	0	35	24	20	0
2:00 PM	8	13	2	0	3	27	12	0	10	4	20	0	39	23	10	0
2:15 PM	2	9	0	0	2	25	12	0	13	3	23	0	34	32	9	0
2:30 PM	13	13	1	0	5	29	12	0	12	13	32	0	36	32	9	0
2:45 PM	5	13	1	0	4	39	16	0	15	13	21	0	43	21	15	0
3:00 PM	6	7	2	0	2	30	11	0	8	2	30	0	32	22	7	0
3:15 PM	12	4	3	0	2	22	10	0	15	2	26	0	38	18	17	0
3:30 PM	8	16	1	0	3	34	18	0	8	6	16	0	32	45	26	0
3:45 PM	4	8	2	0	2	37	14	0	11	2	29	0	52	34	28	0
4:00 PM	8	7	2	0	2	25	12	0	10	8	27	0	53	40	12	0
4:15 PM	9	10	3	0	1	33	15	0	10	2	30	0	28	37	8	0
4:30 PM	2	14	3	0	2	27	16	0	12	7	24	0	40	34	15	0
4:45 PM	13	19	2	0	7	39	21	0	17	4	18	0	27	33	16	0
5:00 PM	5	7	2	0	1	39	8	0	21	1	41	0	45	42	7	0
5:15 PM	11	10	4	0	3	34	15	0	17	5	26	0	42	45	11	0
5:30 PM	28	29	2	0	7	36	21	0	21	15	34	0	34	37	27	0
5:45 PM	31	18	5	0	6	33	13	0	14	12	19	0	42	35	28	0

Study Name **Location 18 Front St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Fair Ave Westbound			Front St Northbound			Fair Ave Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	9	0	0	1	3	0	1	2	0
6:15 AM	6	0	0	1	1	0	2	5	0
6:30 AM	12	0	0	1	12	0	4	5	0
6:45 AM	10	0	0	2	11	0	2	7	0
7:00 AM	19	2	0	1	8	0	2	7	0
7:15 AM	11	1	0	0	8	0	5	11	0
7:30 AM	15	2	0	3	18	0	6	9	0
7:45 AM	26	3	0	2	12	0	4	10	0
8:00 AM	15	0	0	0	8	0	1	6	0
8:15 AM	11	1	0	1	4	0	4	5	0
8:30 AM	19	1	0	2	17	0	6	8	0
8:45 AM	15	1	0	8	17	0	4	12	0
9:00 AM	18	1	0	3	12	0	3	13	0
9:15 AM	18	0	0	6	11	0	6	17	0
9:30 AM	25	1	0	3	13	0	6	12	0
9:45 AM	19	0	0	6	14	0	9	12	0
10:00 AM	19	1	0	7	12	0	5	9	0
10:15 AM	20	2	0	5	12	0	5	16	0
10:30 AM	24	2	0	2	15	0	2	15	0
10:45 AM	27	2	0	5	8	0	7	14	0
11:00 AM	21	1	0	3	11	0	8	21	0
11:15 AM	35	0	0	2	20	0	6	26	0
11:30 AM	39	3	0	7	11	0	3	24	0
11:45 AM	30	2	0	5	11	0	7	27	0
12:00 PM	28	3	0	6	19	0	5	32	0
12:15 PM	29	2	0	5	11	0	4	28	0
12:30 PM	30	2	0	5	13	0	6	22	0
12:45 PM	33	2	0	3	15	0	4	31	0
1:00 PM	28	7	0	3	13	0	5	26	0
1:15 PM	27	2	0	6	8	0	7	26	0
1:30 PM	24	1	0	1	17	0	7	20	0
1:45 PM	38	2	0	3	15	0	9	27	0
2:00 PM	28	2	0	7	12	0	5	23	0
2:15 PM	31	1	0	5	14	0	9	41	0
2:30 PM	39	3	0	3	7	0	6	29	0
2:45 PM	29	3	0	2	15	0	5	22	0
3:00 PM	32	1	0	4	11	0	7	26	0
3:15 PM	27	1	0	5	4	0	6	35	0
3:30 PM	45	0	0	6	17	0	15	26	0
3:45 PM	32	3	0	9	19	0	15	36	0
4:00 PM	30	7	0	7	8	0	13	33	0
4:15 PM	35	5	0	10	14	0	14	37	0
4:30 PM	37	1	0	3	12	0	11	27	0
4:45 PM	40	5	0	4	22	0	10	41	0
5:00 PM	38	4	0	6	14	0	16	55	0
5:15 PM	35	8	0	15	24	0	14	43	0
5:30 PM	41	6	0	13	19	0	9	53	1
5:45 PM	28	5	0	12	14	0	16	35	0

Study Name **Location 18 Front St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Fair Ave Westbound			Front St Northbound			Fair Ave Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	1	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	0
8:00 AM	1	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	1	0	0	0	0
8:45 AM	1	0	0	0	1	0	0	0	0
9:00 AM	1	0	0	0	0	0	0	2	0
9:15 AM	2	0	0	0	0	0	0	0	0
9:30 AM	3	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	1	0
10:00 AM	1	0	0	0	0	0	0	1	0
10:15 AM	1	0	0	0	1	0	0	0	0
10:30 AM	1	0	0	0	0	0	1	1	0
10:45 AM	0	0	0	0	0	0	0	1	0
11:00 AM	1	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	1	0
11:30 AM	1	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	1	0	0	0	0	0	0	1	0
12:15 PM	1	0	0	0	0	0	0	0	0
12:30 PM	1	0	0	1	1	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	1	0
1:00 PM	3	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	1	0	0	0	0	0	1	1	0
1:45 PM	1	0	0	0	0	0	0	1	0
2:00 PM	1	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	2	0	0	1	1	0	0	1	0
2:45 PM	0	0	0	0	0	0	1	0	0
3:00 PM	2	0	0	1	0	0	0	0	0
3:15 PM	2	0	0	0	0	0	0	1	0
3:30 PM	2	0	0	0	1	0	0	1	0
3:45 PM	1	0	0	0	0	0	1	1	0
4:00 PM	1	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	1	0	0
4:30 PM	1	0	0	0	0	0	0	1	0
4:45 PM	1	0	0	0	0	0	0	0	0
5:00 PM	1	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 18 Front St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Fair Ave Westbound			Front St Northbound			Fair Ave Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	1	0	0	0	0	0	0	0	0
7:00 AM	1	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	1	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	1	0
10:00 AM	1	0	0	0	0	0	0	0	0
10:15 AM	1	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	1	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0
11:30 AM	1	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	1	0	0	0	1	0	0	0	0
1:00 PM	1	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	1	0
1:30 PM	0	0	0	0	1	0	0	0	0
1:45 PM	1	0	0	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0	0	1	0
2:15 PM	0	0	0	0	0	0	0	2	0
2:30 PM	0	0	0	0	0	0	0	1	0
2:45 PM	2	0	0	0	0	0	0	0	0
3:00 PM	1	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 18 Front St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Fair Ave Crossing East Leg	Front St Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	1	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	2	0	0
7:30 AM	0	0	0
7:45 AM	1	1	0
8:00 AM	0	2	0
8:15 AM	1	0	0
8:30 AM	0	1	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	1	0
9:45 AM	0	0	0
10:00 AM	0	1	0
10:15 AM	0	1	1
10:30 AM	1	2	0
10:45 AM	1	4	0
11:00 AM	0	2	0
11:15 AM	0	2	0
11:30 AM	0	0	0
11:45 AM	0	1	0
12:00 PM	1	3	0
12:15 PM	0	1	0
12:30 PM	1	1	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	1	0
1:45 PM	1	2	0
2:00 PM	0	2	0
2:15 PM	1	2	0
2:30 PM	0	1	0
2:45 PM	0	1	0
3:00 PM	0	0	0
3:15 PM	0	2	0
3:30 PM	0	1	0
3:45 PM	0	0	0
4:00 PM	0	1	1
4:15 PM	0	2	0
4:30 PM	0	0	0
4:45 PM	0	0	2
5:00 PM	1	3	0
5:15 PM	0	1	0
5:30 PM	0	5	0
5:45 PM	0	0	0

Study Name **Location 18 Front St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Fair Ave Crossing East Leg	Front St Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	1	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	1	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	2	0
12:45 PM	0	0	0
1:00 PM	5	5	1
1:15 PM	0	2	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	2	0
2:45 PM	0	1	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	2	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	2	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	2	0

Study Name **Location 18 Front St & Fair Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Fair Ave Westbound			Front St Northbound			Fair Ave Eastbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	9	0	0	1	3	0	1	2	0
6:15 AM	7	0	0	1	1	0	2	5	0
6:30 AM	13	0	0	1	12	0	4	5	0
6:45 AM	11	0	0	2	11	0	2	7	0
7:00 AM	21	2	0	1	8	0	2	7	0
7:15 AM	11	1	0	0	10	0	5	11	0
7:30 AM	16	2	0	3	18	0	6	9	0
7:45 AM	26	3	0	2	13	0	4	10	0
8:00 AM	16	0	0	0	9	0	1	6	0
8:15 AM	11	1	0	1	4	0	4	5	0
8:30 AM	20	1	0	2	18	0	6	8	0
8:45 AM	17	1	0	8	18	0	4	12	0
9:00 AM	19	1	0	3	12	0	3	15	0
9:15 AM	20	0	0	6	12	0	6	17	0
9:30 AM	28	1	0	3	13	0	6	12	0
9:45 AM	19	0	0	6	14	0	9	14	0
10:00 AM	21	1	0	7	12	0	5	10	0
10:15 AM	22	2	0	5	13	0	5	16	0
10:30 AM	25	2	0	2	15	0	3	16	0
10:45 AM	28	2	0	5	8	0	7	15	0
11:00 AM	22	1	0	3	11	0	8	21	0
11:15 AM	36	0	0	2	20	0	6	27	0
11:30 AM	41	3	0	7	11	0	3	24	0
11:45 AM	30	2	0	5	11	0	7	27	0
12:00 PM	29	3	0	6	19	0	5	33	0
12:15 PM	30	2	0	5	11	0	4	28	0
12:30 PM	31	2	0	6	14	0	6	22	0
12:45 PM	34	2	0	3	16	0	4	32	0
1:00 PM	32	7	0	3	13	0	5	26	0
1:15 PM	27	2	0	6	8	0	7	27	0
1:30 PM	25	1	0	1	18	0	8	21	0
1:45 PM	40	2	0	3	15	0	9	28	0
2:00 PM	30	2	0	7	12	0	5	24	0
2:15 PM	31	1	0	5	14	0	9	43	0
2:30 PM	41	3	0	4	8	0	6	31	0
2:45 PM	31	3	0	2	15	0	6	22	0
3:00 PM	35	1	0	5	11	0	7	26	0
3:15 PM	29	1	0	5	4	0	6	36	0
3:30 PM	47	0	0	6	18	0	15	27	0
3:45 PM	33	3	0	9	19	0	16	37	0
4:00 PM	31	7	0	7	8	0	13	33	0
4:15 PM	36	5	0	10	14	0	15	37	0
4:30 PM	38	1	0	3	12	0	11	28	0
4:45 PM	41	5	0	4	22	0	10	41	0
5:00 PM	39	4	0	6	14	0	16	55	0
5:15 PM	35	8	0	15	24	0	14	43	0
5:30 PM	42	6	0	13	19	0	9	53	1
5:45 PM	28	5	0	12	14	0	16	35	0

Study Name **Location 19 Presque Isle Ave & Kaye Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Kaye Ave Westbound				Presque Isle Ave Northbound				Kaye Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	11	0	0	1	1	1	0	1	9	2	0	0	0	0	0
6:15 AM	2	9	0	0	0	3	0	0	0	12	3	0	0	0	0	0
6:30 AM	3	14	0	0	1	10	0	0	0	16	7	0	0	0	0	0
6:45 AM	0	15	1	0	1	11	0	0	0	28	4	0	0	0	1	0
7:00 AM	3	19	0	0	2	9	0	0	0	17	4	0	0	5	4	0
7:15 AM	11	23	0	0	3	9	2	0	0	16	6	0	11	10	7	0
7:30 AM	12	24	0	0	7	12	1	0	0	21	9	0	5	4	4	0
7:45 AM	11	28	0	0	7	27	1	0	0	43	14	0	2	1	5	0
8:00 AM	7	24	0	0	8	8	0	0	1	22	7	0	3	2	3	0
8:15 AM	7	25	1	0	1	8	1	0	1	13	4	0	1	1	5	0
8:30 AM	13	17	0	0	5	9	0	0	0	30	12	0	1	3	3	0
8:45 AM	13	45	0	0	5	25	0	0	2	52	20	0	3	7	10	0
9:00 AM	3	19	0	0	5	7	0	0	0	27	6	0	1	5	6	0
9:15 AM	5	12	0	0	0	11	0	0	1	25	7	0	3	7	6	0
9:30 AM	15	25	0	0	3	16	0	0	0	41	17	0	7	3	7	0
9:45 AM	14	44	0	0	4	13	1	0	2	47	17	0	3	9	12	0
10:00 AM	3	27	0	0	4	6	1	0	1	23	4	0	1	7	8	0
10:15 AM	4	20	0	0	4	4	2	0	2	34	2	0	4	6	7	0
10:30 AM	10	26	0	0	5	12	3	0	1	30	8	0	7	3	5	0
10:45 AM	6	37	0	0	3	5	2	0	0	39	9	0	4	11	12	0
11:00 AM	4	27	1	0	3	7	0	0	4	31	5	0	5	9	7	0
11:15 AM	8	45	1	0	5	9	2	0	4	32	9	0	7	9	12	0
11:30 AM	9	50	1	0	5	16	1	0	0	43	16	0	7	15	12	0
11:45 AM	19	44	1	0	3	20	0	0	3	65	12	0	12	17	29	0
12:00 PM	10	51	2	0	6	10	0	0	0	57	4	0	13	13	18	0
12:15 PM	10	47	2	0	5	8	1	0	0	47	8	0	6	8	8	0
12:30 PM	12	47	1	0	6	16	0	0	3	45	9	0	20	10	6	0
12:45 PM	12	47	1	0	3	10	0	0	2	44	14	0	15	12	20	0
1:00 PM	11	39	1	0	4	11	1	0	1	34	8	0	9	5	22	0
1:15 PM	8	36	0	0	3	20	1	0	1	48	10	0	9	5	15	0
1:30 PM	15	45	0	0	3	12	1	0	1	55	11	0	12	10	17	0
1:45 PM	18	40	0	0	3	11	0	0	3	61	9	0	14	8	13	0
2:00 PM	16	46	0	0	7	9	0	0	2	30	9	0	15	12	16	0
2:15 PM	10	44	0	0	1	13	1	0	3	41	5	0	30	11	21	0
2:30 PM	17	38	0	0	9	18	0	0	0	49	8	0	14	7	16	0
2:45 PM	15	59	0	0	5	6	0	0	0	50	14	0	14	10	18	0
3:00 PM	5	49	1	0	6	4	3	0	2	50	5	0	18	7	10	0
3:15 PM	13	56	1	0	6	3	0	0	0	55	3	0	9	13	10	0
3:30 PM	8	53	1	0	7	9	1	0	0	62	11	0	15	8	24	0
3:45 PM	9	62	1	0	7	9	1	0	1	57	6	0	15	21	16	0
4:00 PM	6	58	1	0	2	10	1	0	1	51	6	0	11	10	15	0
4:15 PM	9	34	0	0	9	10	1	0	2	44	8	0	4	13	8	0
4:30 PM	11	38	0	0	9	8	0	0	2	40	6	0	19	13	10	0
4:45 PM	9	60	4	0	6	7	1	0	3	55	10	0	12	12	15	0
5:00 PM	12	73	2	0	11	11	0	0	0	63	6	0	18	23	10	0
5:15 PM	7	48	1	0	11	7	0	0	2	68	8	0	8	16	14	0
5:30 PM	37	54	0	0	7	26	0	0	4	72	12	0	4	11	19	0
5:45 PM	24	53	4	0	6	11	0	0	1	63	18	0	7	12	17	0

Study Name **Location 19 Presque Isle Ave & Kaye Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Kaye Ave Westbound				Presque Isle Ave Northbound				Kaye Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
8:00 AM	0	3	0	0	1	0	0	0	0	1	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
9:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0
9:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	0
9:30 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	0
10:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
10:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
10:30 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
11:00 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	1	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0
11:30 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	0
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0
12:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	3	0
12:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	2	0
2:15 PM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
2:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1	0
3:00 PM	0	1	0	0	2	0	0	0	0	1	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
3:45 PM	0	0	0	0	0	1	0	0	0	2	1	0	0	0	1	0
4:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	0	2	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0
4:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0
5:00 PM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 19 Presque Isle Ave & Kaye Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Kaye Ave Westbound				Presque Isle Ave Northbound				Kaye Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 19 Presque Isle Ave & Kaye Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Kaye Ave Crossing East Leg	Presque Isle Ave Crossing South Leg	Kaye Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	1
7:15 AM	3	0	0	1
7:30 AM	1	0	0	1
7:45 AM	2	1	0	2
8:00 AM	0	0	0	0
8:15 AM	2	0	0	0
8:30 AM	6	1	2	3
8:45 AM	3	2	1	1
9:00 AM	1	1	0	2
9:15 AM	1	1	0	0
9:30 AM	1	1	0	3
9:45 AM	3	1	1	0
10:00 AM	2	0	0	1
10:15 AM	1	0	1	0
10:30 AM	1	3	0	0
10:45 AM	1	1	3	5
11:00 AM	1	0	0	0
11:15 AM	1	1	1	1
11:30 AM	9	2	1	2
11:45 AM	3	0	0	3
12:00 PM	2	1	0	0
12:15 PM	0	0	0	0
12:30 PM	2	1	0	3
12:45 PM	6	2	0	1
1:00 PM	1	0	0	0
1:15 PM	3	2	3	1
1:30 PM	0	1	2	1
1:45 PM	3	1	0	0
2:00 PM	1	0	1	1
2:15 PM	0	2	1	0
2:30 PM	2	4	3	3
2:45 PM	2	0	0	0
3:00 PM	1	2	0	3
3:15 PM	1	1	2	2
3:30 PM	5	1	0	0
3:45 PM	3	0	2	2
4:00 PM	5	1	3	1
4:15 PM	0	1	2	4
4:30 PM	7	2	1	1
4:45 PM	1	1	3	1
5:00 PM	4	2	1	0
5:15 PM	5	2	1	8
5:30 PM	10	5	2	1
5:45 PM	6	4	1	2

Study Name **Location 19 Presque Isle Ave & Kaye Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Kaye Ave Crossing East Leg	Presque Isle Ave Crossing South Leg	Kaye Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	1	0	0
7:00 AM	0	0	0	1
7:15 AM	0	0	0	0
7:30 AM	3	0	0	0
7:45 AM	2	0	0	0
8:00 AM	1	1	0	1
8:15 AM	1	0	0	1
8:30 AM	2	0	0	1
8:45 AM	3	0	0	1
9:00 AM	0	0	0	0
9:15 AM	1	0	1	2
9:30 AM	4	0	0	2
9:45 AM	5	3	3	3
10:00 AM	0	0	0	0
10:15 AM	1	0	0	1
10:30 AM	0	0	0	1
10:45 AM	3	0	0	2
11:00 AM	0	1	0	0
11:15 AM	2	0	0	0
11:30 AM	3	0	1	1
11:45 AM	7	5	5	4
12:00 PM	1	0	0	0
12:15 PM	0	0	1	1
12:30 PM	2	2	0	0
12:45 PM	3	3	0	1
1:00 PM	0	0	0	1
1:15 PM	20	1	1	1
1:30 PM	2	1	1	1
1:45 PM	4	2	0	1
2:00 PM	1	0	0	2
2:15 PM	2	0	0	1
2:30 PM	1	0	0	1
2:45 PM	2	0	0	2
3:00 PM	0	0	0	3
3:15 PM	0	1	0	1
3:30 PM	1	1	0	0
3:45 PM	2	1	1	1
4:00 PM	6	0	0	1
4:15 PM	4	1	1	1
4:30 PM	4	2	1	0
4:45 PM	1	0	0	0
5:00 PM	0	1	1	0
5:15 PM	0	2	1	0
5:30 PM	0	1	0	0
5:45 PM	0	4	1	0

Study Name **Location 19 Presque Isle Ave & Kaye Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Kaye Ave Westbound				Presque Isle Ave Northbound				Kaye Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	13	0	0	1	1	1	0	1	9	2	0	0	0	0	0
6:15 AM	2	10	0	0	0	3	0	0	0	12	3	0	0	0	0	0
6:30 AM	3	16	0	0	1	10	0	0	0	16	7	0	0	0	0	0
6:45 AM	0	17	1	0	1	11	0	0	0	29	4	0	0	0	1	0
7:00 AM	3	21	0	0	2	9	0	0	0	17	4	0	0	5	5	0
7:15 AM	11	23	0	0	3	9	2	0	0	17	6	0	12	10	7	0
7:30 AM	12	26	0	0	7	12	1	0	0	22	9	0	5	4	5	0
7:45 AM	11	28	0	0	7	27	1	0	0	43	14	0	2	1	7	0
8:00 AM	7	28	0	0	9	8	0	0	1	23	7	0	3	2	4	0
8:15 AM	7	25	1	0	2	8	1	0	1	16	4	0	1	1	6	0
8:30 AM	13	18	0	0	5	9	0	0	0	31	13	0	1	3	4	0
8:45 AM	13	46	0	0	5	25	0	0	2	53	20	0	3	8	12	0
9:00 AM	3	20	0	0	5	8	0	0	0	28	6	0	1	5	8	0
9:15 AM	5	12	0	0	1	11	0	0	1	25	7	0	3	8	9	0
9:30 AM	16	27	0	0	3	16	0	0	0	41	17	0	7	3	9	0
9:45 AM	14	46	0	0	4	13	1	0	2	47	17	0	3	9	16	0
10:00 AM	4	27	0	0	4	6	1	0	1	24	4	0	1	7	9	0
10:15 AM	4	20	0	0	5	4	2	0	2	34	2	0	4	6	8	0
10:30 AM	11	26	0	0	5	12	3	0	1	31	8	0	7	4	7	0
10:45 AM	6	37	0	0	3	5	2	0	0	39	9	0	4	11	14	0
11:00 AM	4	28	1	0	3	7	0	0	4	36	5	0	5	9	8	0
11:15 AM	8	45	1	0	5	9	2	0	4	33	9	0	7	9	14	0
11:30 AM	9	53	1	0	5	17	1	0	0	43	16	0	7	15	13	0
11:45 AM	19	45	1	0	3	20	0	0	3	65	12	0	13	17	30	0
12:00 PM	10	52	2	0	6	10	0	0	0	57	4	0	13	14	20	0
12:15 PM	10	48	2	0	5	8	1	0	0	48	8	0	6	8	9	0
12:30 PM	12	47	1	0	6	16	0	0	3	46	10	0	20	10	9	0
12:45 PM	12	49	1	0	3	10	0	0	2	44	14	0	15	12	21	0
1:00 PM	11	40	1	0	4	11	1	0	1	34	8	0	9	5	22	0
1:15 PM	8	36	0	0	3	20	1	0	1	49	10	0	9	5	15	0
1:30 PM	15	45	0	0	3	12	1	0	1	55	11	0	12	10	17	0
1:45 PM	18	40	1	0	3	11	0	0	3	63	9	0	14	8	13	0
2:00 PM	16	47	0	0	7	9	0	0	2	30	9	0	16	12	18	0
2:15 PM	11	45	0	0	1	13	1	0	3	44	5	0	30	11	22	0
2:30 PM	17	40	0	0	9	18	0	0	0	49	8	0	14	7	18	0
2:45 PM	15	60	0	0	5	7	0	0	0	52	14	0	14	11	19	0
3:00 PM	5	50	1	0	8	4	3	0	2	51	5	0	18	7	11	0
3:15 PM	13	56	1	0	6	3	0	0	0	55	5	0	9	13	10	0
3:30 PM	8	53	1	0	7	9	1	0	0	62	11	0	15	8	27	0
3:45 PM	9	62	1	0	7	10	1	0	1	59	7	0	15	21	17	0
4:00 PM	6	59	1	0	2	10	1	0	1	54	7	0	11	10	17	0
4:15 PM	9	35	0	0	9	10	1	0	2	44	8	0	4	14	9	0
4:30 PM	11	38	0	0	9	8	0	0	2	42	6	0	19	13	12	0
4:45 PM	9	60	4	0	6	7	1	0	3	57	10	0	12	12	17	0
5:00 PM	12	74	2	0	12	11	0	0	0	64	6	0	18	23	10	0
5:15 PM	7	49	1	0	12	7	0	0	2	68	8	0	8	16	14	0
5:30 PM	37	54	0	0	7	27	0	0	4	72	12	0	4	11	19	0
5:45 PM	24	53	4	0	6	11	0	0	1	63	18	0	7	12	17	0

Study Name **Location 20 Presque Isle Ave & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				College Ave Westbound				Presque Isle Ave Northbound				College Ave Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	TOTAL
6:00 AM	3	7	0	0	0	3	0	0	0	13	3	0	0	1	0	0	
6:15 AM	2	9	0	0	2	7	1	0	0	12	4	0	1	0	2	0	
6:30 AM	3	11	0	0	0	7	0	0	0	19	10	0	2	2	1	0	
6:45 AM	4	12	0	0	0	21	1	0	0	32	17	0	2	3	0	0	
7:00 AM	4	13	0	0	1	42	0	0	0	17	19	0	6	6	4	0	
7:15 AM	6	27	0	0	0	50	0	0	0	15	15	0	8	26	8	0	
7:30 AM	4	31	0	0	0	20	1	0	1	22	12	0	7	9	2	0	
7:45 AM	6	27	0	0	1	32	2	0	0	57	21	0	16	8	1	0	
8:00 AM	3	21	0	0	1	22	0	0	0	29	10	0	5	10	3	0	
8:15 AM	4	25	0	0	0	11	1	0	0	15	6	0	9	8	4	0	
8:30 AM	4	14	0	0	2	20	0	0	3	32	11	0	11	14	3	0	
8:45 AM	6	42	0	0	1	36	2	0	0	63	14	0	11	16	12	0	
9:00 AM	1	20	0	0	1	17	1	0	0	31	5	0	12	16	5	0	
9:15 AM	2	15	0	0	1	19	0	0	0	28	4	0	9	15	5	0	
9:30 AM	7	23	1	0	2	21	0	0	0	38	8	0	14	10	9	0	
9:45 AM	13	33	0	0	2	21	1	0	0	52	19	0	13	29	18	0	
10:00 AM	4	25	0	0	1	15	3	0	2	28	8	0	5	5	5	0	
10:15 AM	3	23	0	0	0	16	0	0	2	29	2	0	14	14	4	0	
10:30 AM	6	31	1	0	1	13	0	0	0	34	18	0	6	12	5	0	
10:45 AM	6	29	2	0	3	34	1	0	2	38	10	0	12	20	8	0	
11:00 AM	2	34	1	0	0	14	3	0	0	24	8	0	15	26	11	0	
11:15 AM	6	36	0	0	3	19	0	0	2	36	11	0	7	24	5	0	
11:30 AM	9	45	0	0	1	30	1	0	0	50	10	0	14	30	3	0	
11:45 AM	14	48	3	0	2	35	3	0	3	66	12	0	21	32	11	0	
12:00 PM	10	52	1	0	3	17	1	0	1	49	10	0	23	49	15	0	
12:15 PM	6	46	0	0	1	32	2	0	2	41	18	0	16	21	9	0	
12:30 PM	8	54	5	0	3	24	2	0	1	40	8	0	27	23	14	0	
12:45 PM	10	57	1	0	2	25	1	0	4	55	10	0	26	32	8	0	
1:00 PM	7	37	1	0	2	20	1	0	1	32	4	0	20	18	3	0	
1:15 PM	6	42	1	0	4	18	2	0	4	47	8	0	13	17	13	0	
1:30 PM	12	49	0	0	0	18	0	0	2	45	10	0	15	23	16	0	
1:45 PM	7	38	1	0	3	28	4	0	2	51	13	0	12	29	19	0	
2:00 PM	3	55	2	0	1	24	0	0	1	37	8	0	25	15	6	0	
2:15 PM	10	63	2	0	4	16	0	0	2	31	7	0	17	41	10	0	
2:30 PM	11	36	2	0	1	24	0	0	4	36	18	0	34	43	16	0	
2:45 PM	7	61	3	0	2	27	1	0	2	54	10	0	22	41	6	0	
3:00 PM	11	61	2	0	2	16	0	0	1	40	11	0	26	30	13	0	
3:15 PM	7	54	3	0	3	16	1	0	1	48	8	0	23	36	12	0	
3:30 PM	8	61	3	0	2	24	3	0	3	51	8	0	20	38	20	0	
3:45 PM	5	67	1	0	1	24	2	0	1	51	4	0	23	27	18	0	
4:00 PM	7	63	3	0	4	20	2	0	0	44	5	0	22	29	9	0	
4:15 PM	4	44	1	0	0	15	1	0	1	39	4	0	23	34	10	0	
4:30 PM	5	48	3	0	1	13	0	0	2	37	3	0	31	39	10	0	
4:45 PM	5	56	3	0	4	19	2	0	2	46	9	0	29	33	15	0	
5:00 PM	7	84	3	0	4	19	1	0	3	62	7	0	27	45	7	0	
5:15 PM	7	43	2	0	9	25	1	0	1	56	6	0	35	30	15	0	
5:30 PM	10	43	0	0	3	38	1	0	5	52	13	0	16	29	26	0	
5:45 PM	6	42	2	0	6	23	0	0	4	72	13	0	25	30	15	0	

Study Name **Location 20 Presque Isle Ave & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				College Ave Westbound				Presque Isle Ave Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	1	1	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	1	0
8:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
9:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0
10:00 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
11:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:15 PM	0	1	0	0	0	2	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	2	1	0	0
12:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0
2:00 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2:15 PM	1	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
2:30 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
3:30 PM	0	0	0	0	0	1	0	0	0	2	0	0	1	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:00 PM	0	0	0	0	1	0	0	0	0	3	0	0	0	0	1	0
4:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 20 Presque Isle Ave & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				College Ave Westbound				Presque Isle Ave Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:00 AM	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 20 4th St & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound	College Ave Westbound	Presque Isle Ave Northbound	College Ave Eastbound
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	1	0	0	2
7:00 AM	0	1	1	0
7:15 AM	1	0	1	1
7:30 AM	3	0	0	3
7:45 AM	0	0	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	1	0	0	2
8:45 AM	2	2	0	1
9:00 AM	0	1	1	2
9:15 AM	0	1	0	1
9:30 AM	1	4	3	1
9:45 AM	2	1	0	0
10:00 AM	0	1	1	2
10:15 AM	0	1	0	0
10:30 AM	1	1	0	1
10:45 AM	0	0	0	4
11:00 AM	1	0	0	1
11:15 AM	0	0	0	0
11:30 AM	0	0	1	3
11:45 AM	0	0	1	1
12:00 PM	2	0	1	3
12:15 PM	2	3	4	1
12:30 PM	0	1	0	4
12:45 PM	2	0	0	2
1:00 PM	2	1	2	5
1:15 PM	0	1	1	2
1:30 PM	1	1	1	2
1:45 PM	3	0	0	4
2:00 PM	1	6	1	0
2:15 PM	1	1	2	2
2:30 PM	3	5	1	0
2:45 PM	2	0	1	0
3:00 PM	1	4	1	1
3:15 PM	2	1	1	2
3:30 PM	4	0	1	1
3:45 PM	3	2	0	2
4:00 PM	1	6	1	1
4:15 PM	1	2	1	2
4:30 PM	0	5	1	1
4:45 PM	0	2	0	1
5:00 PM	2	0	1	2
5:15 PM	0	2	0	2
5:30 PM	1	1	2	1
5:45 PM	1	1	1	7

Study Name **Location 20 4th St & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound	College Ave Westbound	Presque Isle Ave Northbound	College Ave Eastbound
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	2	2	0	0
7:15 AM	1	0	0	0
7:30 AM	1	0	0	0
7:45 AM	0	2	0	0
8:00 AM	0	1	0	1
8:15 AM	0	0	0	1
8:30 AM	0	0	0	0
8:45 AM	3	0	0	1
9:00 AM	0	0	1	4
9:15 AM	1	0	0	1
9:30 AM	1	0	0	1
9:45 AM	7	1	1	5
10:00 AM	0	0	0	0
10:15 AM	0	0	0	1
10:30 AM	0	0	0	0
10:45 AM	0	0	0	1
11:00 AM	0	0	0	1
11:15 AM	0	0	0	0
11:30 AM	2	2	0	0
11:45 AM	1	4	1	4
12:00 PM	1	0	0	0
12:15 PM	0	0	0	1
12:30 PM	1	0	0	0
12:45 PM	1	3	0	0
1:00 PM	0	0	1	0
1:15 PM	0	0	1	1
1:30 PM	0	0	1	4
1:45 PM	1	3	1	3
2:00 PM	0	0	0	3
2:15 PM	1	0	3	3
2:30 PM	0	0	0	2
2:45 PM	0	2	0	4
3:00 PM	3	3	0	4
3:15 PM	3	2	0	2
3:30 PM	1	2	1	1
3:45 PM	2	1	0	3
4:00 PM	1	0	0	1
4:15 PM	0	0	0	1
4:30 PM	0	0	0	0
4:45 PM	1	0	0	1
5:00 PM	1	0	0	0
5:15 PM	1	4	0	0
5:30 PM	0	0	0	0
5:45 PM	1	2	0	1

Study Name **Location 20 Presque Isle Ave & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				College Ave Westbound				Presque Isle Ave Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	10	0	0	0	3	0	0	0	13	3	0	0	1	0	0
6:15 AM	2	10	0	0	2	7	1	0	0	12	4	0	1	0	2	0
6:30 AM	3	12	1	0	0	7	0	0	0	19	10	0	2	3	1	0
6:45 AM	4	14	0	0	0	22	1	0	0	33	17	0	3	4	0	0
7:00 AM	6	13	0	0	1	42	0	0	0	17	20	0	6	6	4	0
7:15 AM	6	28	0	0	0	51	0	0	0	16	15	0	9	26	8	0
7:30 AM	4	33	0	0	0	20	1	0	1	22	12	0	7	9	3	0
7:45 AM	6	27	0	0	1	32	2	0	0	57	21	0	17	8	1	0
8:00 AM	3	24	0	0	1	22	0	0	0	30	10	0	5	10	3	0
8:15 AM	4	26	0	0	0	11	1	0	0	17	6	0	10	8	5	0
8:30 AM	4	15	0	0	2	20	0	0	3	33	11	0	11	15	4	0
8:45 AM	6	42	0	0	1	36	2	0	0	64	14	0	13	16	12	0
9:00 AM	1	22	0	0	1	17	1	0	0	32	6	0	12	16	5	0
9:15 AM	2	15	0	0	1	19	0	0	0	28	4	0	10	16	5	0
9:30 AM	8	23	1	0	2	22	0	0	0	38	9	0	15	10	9	0
9:45 AM	13	35	0	0	2	21	1	0	0	53	19	0	14	29	18	0
10:00 AM	4	26	0	0	1	16	3	0	2	29	8	0	5	5	5	0
10:15 AM	3	23	0	0	0	16	0	0	2	29	2	0	16	14	5	0
10:30 AM	6	31	1	0	1	13	0	0	0	34	18	0	6	12	6	0
10:45 AM	6	29	2	0	3	34	1	0	2	38	11	0	13	20	8	0
11:00 AM	2	34	2	0	0	14	3	0	0	27	8	0	15	26	11	0
11:15 AM	6	36	0	0	3	19	0	0	2	38	11	0	8	24	5	0
11:30 AM	9	47	0	0	1	30	1	0	0	50	10	0	15	30	3	0
11:45 AM	14	50	3	0	2	35	3	0	3	66	12	0	21	32	11	0
12:00 PM	10	53	1	0	3	17	1	0	1	49	10	0	24	49	15	0
12:15 PM	6	47	0	0	1	34	2	0	2	42	18	0	16	21	9	0
12:30 PM	8	55	5	0	3	24	2	0	1	41	8	0	29	24	14	0
12:45 PM	10	59	1	0	2	25	1	0	4	56	10	0	27	32	8	0
1:00 PM	7	38	1	0	2	20	1	0	1	32	4	0	20	18	3	0
1:15 PM	6	42	1	0	4	18	2	0	4	47	8	0	14	18	13	0
1:30 PM	12	49	0	0	0	18	0	0	2	46	10	0	15	23	16	0
1:45 PM	7	38	1	0	3	28	4	0	2	53	13	0	13	30	19	0
2:00 PM	3	56	2	0	1	24	0	0	2	37	9	0	25	16	6	0
2:15 PM	11	64	2	0	4	16	0	0	2	32	7	0	18	41	10	0
2:30 PM	11	38	2	0	1	25	0	0	4	36	18	0	37	43	18	0
2:45 PM	7	62	3	0	2	27	1	0	2	56	10	0	23	41	6	0
3:00 PM	11	62	2	0	2	16	0	0	1	41	11	0	26	30	13	0
3:15 PM	7	54	3	0	3	17	1	0	1	48	8	0	24	36	12	0
3:30 PM	8	61	3	0	2	25	3	0	3	53	8	0	21	38	20	0
3:45 PM	5	67	1	0	1	24	2	0	1	52	4	0	24	27	18	0
4:00 PM	7	64	3	0	5	20	2	0	0	47	5	0	22	29	10	0
4:15 PM	4	45	1	0	0	15	1	0	1	40	4	0	23	35	10	0
4:30 PM	5	48	3	0	1	13	0	0	2	39	3	0	32	39	10	0
4:45 PM	5	56	3	0	4	19	2	0	2	46	10	0	30	34	17	0
5:00 PM	7	85	3	0	4	19	1	0	3	62	7	0	27	45	8	0
5:15 PM	7	44	2	0	9	25	1	0	1	56	6	0	35	30	15	0
5:30 PM	10	43	0	0	3	39	1	0	5	52	13	0	17	29	26	0
5:45 PM	6	42	2	0	6	23	0	0	4	72	13	0	25	30	15	0

Study Name **Location 21 3rd St & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				College Ave Westbound				3rd St Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	9	0	0	0	1	0	0	0	13	4	0	1	0	0	0
6:15 AM	1	7	0	0	0	6	0	0	0	12	1	0	0	0	0	0
6:30 AM	0	7	0	0	1	8	0	0	1	19	3	0	1	1	0	0
6:45 AM	1	16	0	0	0	7	0	0	0	23	12	0	2	1	0	0
7:00 AM	5	19	0	0	0	19	1	0	0	20	20	0	6	1	1	0
7:15 AM	2	34	1	0	0	19	2	0	1	29	26	0	14	6	4	0
7:30 AM	3	25	0	0	0	9	2	0	0	32	14	0	8	2	0	0
7:45 AM	2	28	1	0	1	11	0	0	0	43	19	0	4	3	1	0
8:00 AM	2	25	1	0	0	6	0	0	0	38	17	0	10	1	0	0
8:15 AM	3	21	1	0	0	2	1	0	1	22	7	0	2	2	1	0
8:30 AM	1	24	0	0	1	8	1	0	0	29	11	0	13	2	2	0
8:45 AM	3	44	0	0	3	20	3	0	0	49	13	0	10	3	2	0
9:00 AM	6	32	1	0	1	5	0	0	3	33	7	0	13	1	3	0
9:15 AM	6	24	0	0	0	9	0	0	0	31	6	0	12	2	1	0
9:30 AM	4	42	1	0	0	12	1	0	1	48	12	0	6	2	0	0
9:45 AM	5	52	0	0	1	10	2	0	0	59	11	0	22	2	4	0
10:00 AM	3	42	1	0	0	7	2	0	4	35	8	0	5	0	0	0
10:15 AM	4	25	1	0	2	9	1	0	0	35	7	0	10	3	3	0
10:30 AM	4	28	0	0	1	2	1	0	2	36	9	0	11	3	1	0
10:45 AM	9	60	1	0	0	11	0	0	0	39	13	0	16	4	1	0
11:00 AM	10	60	0	0	0	3	0	0	1	32	9	0	16	8	2	0
11:15 AM	4	50	0	0	0	6	1	0	3	48	8	0	18	4	4	0
11:30 AM	9	77	0	0	0	10	1	0	0	56	13	0	17	6	0	0
11:45 AM	10	78	2	0	1	6	0	0	2	57	21	0	25	5	6	0
12:00 PM	6	72	2	0	2	4	1	0	2	58	22	0	35	10	5	0
12:15 PM	5	59	2	0	2	8	1	0	1	51	22	0	17	3	0	0
12:30 PM	6	67	1	0	4	4	1	0	4	59	15	0	20	3	0	0
12:45 PM	10	70	3	0	2	7	2	0	3	61	14	0	30	2	2	0
1:00 PM	7	54	0	0	2	6	1	0	1	53	13	0	15	1	5	0
1:15 PM	5	54	1	0	3	4	1	0	1	46	15	0	15	2	2	0
1:30 PM	4	54	0	0	1	7	1	0	2	66	11	0	19	3	3	0
1:45 PM	7	69	1	0	1	11	2	0	2	44	20	0	24	4	4	0
2:00 PM	2	68	3	0	1	7	2	0	0	41	12	0	11	2	2	0
2:15 PM	3	67	0	0	1	10	0	0	2	34	8	0	29	12	6	0
2:30 PM	4	72	2	0	2	1	0	0	1	73	12	0	27	13	6	0
2:45 PM	7	69	2	0	0	9	3	0	0	54	14	0	33	8	3	0
3:00 PM	2	71	1	0	0	6	3	0	2	57	8	0	18	10	4	0
3:15 PM	3	60	2	0	1	6	1	0	2	46	13	0	27	9	1	0
3:30 PM	10	77	1	0	0	3	2	0	0	54	16	0	24	9	5	0
3:45 PM	3	89	1	0	0	14	1	0	2	53	12	0	14	12	5	0
4:00 PM	3	91	3	0	1	9	1	0	3	53	10	0	18	9	1	0
4:15 PM	2	70	1	0	2	6	1	0	3	52	8	0	17	13	3	0
4:30 PM	5	82	1	0	2	4	3	0	3	51	10	0	26	9	1	0
4:45 PM	4	81	0	0	0	12	1	0	3	49	14	0	24	9	3	0
5:00 PM	2	77	2	0	3	3	1	0	4	82	18	0	26	14	1	0
5:15 PM	5	72	0	0	2	7	3	0	4	57	24	0	17	8	5	0
5:30 PM	10	79	1	0	3	13	0	0	3	77	19	0	21	3	4	0
5:45 PM	6	78	3	0	1	5	1	0	2	57	19	0	27	3	3	0

Study Name **Location 21 3rd St & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				College Ave Westbound				3rd St Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0
9:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:45 PM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3:45 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 21 3rd St & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				College Ave Westbound				3rd St Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:45 AM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 21 3rd St & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	College Ave Crossing East Leg	3rd St Crossing South Leg	College Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	10	0	0
6:30 AM	0	1	0	2
6:45 AM	1	2	1	2
7:00 AM	0	0	1	3
7:15 AM	1	1	0	0
7:30 AM	3	1	0	1
7:45 AM	0	1	2	1
8:00 AM	0	3	0	0
8:15 AM	1	3	0	0
8:30 AM	0	2	3	2
8:45 AM	3	0	0	1
9:00 AM	0	1	1	1
9:15 AM	0	0	0	2
9:30 AM	1	1	1	2
9:45 AM	2	3	1	4
10:00 AM	0	4	0	0
10:15 AM	2	4	0	2
10:30 AM	2	1	0	0
10:45 AM	2	3	0	4
11:00 AM	0	1	4	2
11:15 AM	3	1	4	5
11:30 AM	1	2	2	5
11:45 AM	0	4	4	3
12:00 PM	3	1	8	4
12:15 PM	1	2	10	5
12:30 PM	1	1	5	2
12:45 PM	2	9	3	4
1:00 PM	0	2	4	1
1:15 PM	0	0	4	2
1:30 PM	1	2	1	1
1:45 PM	1	3	2	9
2:00 PM	0	0	6	2
2:15 PM	1	2	6	4
2:30 PM	6	3	8	0
2:45 PM	1	2	0	5
3:00 PM	0	4	1	0
3:15 PM	0	6	1	1
3:30 PM	1	6	4	4
3:45 PM	2	2	0	2
4:00 PM	2	2	1	1
4:15 PM	1	1	3	0
4:30 PM	1	5	0	5
4:45 PM	2	10	2	2
5:00 PM	0	4	1	5
5:15 PM	0	7	0	3
5:30 PM	2	3	2	5
5:45 PM	0	4	0	4

Study Name **Location 21 3rd St & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	College Ave Crossing East Leg	3rd St Crossing South Leg	College Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	3	0	0
8:45 AM	2	1	0	0
9:00 AM	0	0	0	0
9:15 AM	1	0	0	0
9:30 AM	0	0	0	2
9:45 AM	3	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	2
10:45 AM	0	1	0	1
11:00 AM	0	0	0	0
11:15 AM	0	0	0	1
11:30 AM	0	2	3	0
11:45 AM	2	1	0	1
12:00 PM	0	0	0	0
12:15 PM	1	0	0	0
12:30 PM	2	0	0	1
12:45 PM	0	2	0	3
1:00 PM	0	0	0	1
1:15 PM	0	1	0	0
1:30 PM	0	1	0	1
1:45 PM	0	1	1	3
2:00 PM	0	1	0	1
2:15 PM	0	2	1	1
2:30 PM	0	0	0	3
2:45 PM	0	0	0	1
3:00 PM	0	0	0	0
3:15 PM	1	2	0	0
3:30 PM	1	1	0	0
3:45 PM	1	0	0	0
4:00 PM	0	1	0	1
4:15 PM	0	0	0	1
4:30 PM	0	2	0	1
4:45 PM	1	1	0	1
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	1	0	0
5:45 PM	0	1	2	0

Study Name **Location 21 3rd St & College Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				College Ave Westbound				3rd St Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	9	0	0	0	1	0	0	0	13	4	0	1	0	0	0
6:15 AM	1	7	0	0	0	6	0	0	0	12	1	0	0	0	0	0
6:30 AM	0	7	0	0	1	8	0	0	1	19	3	0	3	1	0	0
6:45 AM	1	18	0	0	0	7	0	0	0	24	13	0	3	1	0	0
7:00 AM	6	19	0	0	0	19	1	0	0	20	20	0	6	1	1	0
7:15 AM	2	34	1	0	0	19	2	0	1	29	26	0	14	6	4	0
7:30 AM	3	26	0	0	0	9	2	0	0	32	14	0	8	2	0	0
7:45 AM	2	28	1	0	1	11	0	0	0	45	19	0	4	3	1	0
8:00 AM	2	25	1	0	0	6	0	0	0	41	17	0	10	1	0	0
8:15 AM	3	21	1	0	0	2	1	0	1	22	7	0	2	2	1	0
8:30 AM	1	24	0	0	1	8	1	0	0	29	11	0	14	2	2	0
8:45 AM	3	45	0	0	3	20	3	0	0	49	13	0	10	3	2	0
9:00 AM	6	33	1	0	1	5	0	0	3	34	7	0	13	1	3	0
9:15 AM	6	26	0	0	0	9	0	0	0	33	6	0	12	2	2	0
9:30 AM	5	44	1	0	0	12	1	0	1	48	12	0	6	2	0	0
9:45 AM	5	54	0	0	1	10	2	0	0	59	11	0	22	2	4	0
10:00 AM	3	42	1	0	0	8	2	0	5	36	8	0	5	0	0	0
10:15 AM	4	27	1	0	2	9	1	0	0	39	7	0	10	3	3	0
10:30 AM	4	30	0	0	1	2	1	0	2	36	9	0	11	3	1	0
10:45 AM	9	60	1	0	0	11	0	0	0	40	13	0	16	4	1	0
11:00 AM	10	62	0	0	0	3	0	0	1	32	9	0	17	8	2	0
11:15 AM	4	51	0	0	0	6	1	0	3	48	8	0	18	4	4	0
11:30 AM	9	77	0	0	0	10	1	0	0	57	13	0	17	6	0	0
11:45 AM	10	78	2	0	1	6	0	0	2	57	21	0	25	5	6	0
12:00 PM	6	74	2	0	2	4	1	0	2	60	22	0	35	10	5	0
12:15 PM	5	59	2	0	2	9	1	0	1	51	23	0	17	3	0	0
12:30 PM	6	67	1	0	4	4	1	0	4	59	15	0	21	3	0	0
12:45 PM	10	72	3	0	2	7	2	0	3	61	14	0	30	2	2	0
1:00 PM	7	54	0	0	2	6	1	0	1	53	13	0	15	1	5	0
1:15 PM	5	55	1	0	3	4	1	0	1	47	15	0	15	2	2	0
1:30 PM	4	55	0	0	1	7	1	0	2	67	11	0	19	3	3	0
1:45 PM	7	71	1	0	1	11	2	0	2	45	20	0	25	4	4	0
2:00 PM	2	69	3	0	1	7	2	0	0	44	12	0	13	2	2	0
2:15 PM	3	67	0	0	1	10	0	0	2	35	8	0	29	12	6	0
2:30 PM	4	73	2	0	2	1	0	0	1	73	13	0	27	13	6	0
2:45 PM	7	71	3	0	0	9	3	0	0	55	14	0	33	8	3	0
3:00 PM	2	71	1	0	0	7	3	0	2	60	8	0	18	10	4	0
3:15 PM	3	60	2	0	1	6	1	0	2	46	13	0	27	9	1	0
3:30 PM	10	79	1	0	0	3	2	0	0	54	17	0	24	9	5	0
3:45 PM	3	91	1	0	0	14	1	0	2	55	12	0	14	12	5	0
4:00 PM	4	91	3	0	1	9	1	0	3	53	10	0	18	9	1	0
4:15 PM	2	72	1	0	2	6	1	0	3	53	8	0	18	13	3	0
4:30 PM	5	82	1	0	2	4	3	0	3	51	10	0	26	9	1	0
4:45 PM	4	82	0	0	0	12	1	0	3	49	14	0	24	10	3	0
5:00 PM	2	77	2	0	3	3	1	0	4	83	18	0	26	14	1	0
5:15 PM	5	72	0	0	2	7	3	0	4	58	24	0	17	8	5	0
5:30 PM	10	79	1	0	3	14	0	0	3	77	19	0	21	3	4	0
5:45 PM	6	79	3	0	1	5	1	0	2	57	19	0	27	3	3	0

Study Name **Location 22 Pine St & Magnetic Ave**
Start Date **10/02/2013**
Start Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Magnetic Ave Westbound				Pine St Northbound				Magnetic Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	2	0	1	0	0	7	0	0	1	0	2	0
6:15 AM	0	2	0	0	1	0	0	0	0	3	0	0	0	0	1	0
6:30 AM	0	2	0	0	1	1	0	0	0	10	1	0	0	1	1	0
6:45 AM	0	1	1	0	1	4	0	0	0	6	2	0	0	0	0	0
7:00 AM	1	5	0	0	0	1	1	0	0	8	2	0	0	0	0	0
7:15 AM	1	5	0	0	0	1	0	0	0	15	2	0	0	0	0	0
7:30 AM	1	5	0	0	1	0	0	0	0	4	0	0	0	0	1	0
7:45 AM	0	5	1	0	1	1	0	0	0	15	1	0	0	0	1	0
8:00 AM	0	1	0	0	0	2	0	0	0	7	0	0	3	1	0	0
8:15 AM	0	5	1	0	0	1	0	0	0	5	0	0	0	1	1	0
8:30 AM	1	2	1	0	0	4	0	0	0	10	3	0	0	0	0	0
8:45 AM	0	2	1	0	1	1	1	0	0	16	4	0	0	1	1	0
9:00 AM	0	2	0	0	1	1	0	0	0	4	1	0	0	0	0	0
9:15 AM	0	5	0	0	0	2	1	0	0	6	2	0	1	0	0	0
9:30 AM	1	9	0	0	1	1	0	0	0	10	1	0	0	1	0	0
9:45 AM	0	3	0	0	1	1	1	0	0	12	3	0	0	1	1	0
10:00 AM	0	3	0	0	1	0	0	0	1	6	0	0	0	0	1	0
10:15 AM	0	5	0	0	1	1	0	0	0	4	1	0	0	0	0	0
10:30 AM	0	3	0	0	2	0	1	0	0	7	0	0	1	1	0	0
10:45 AM	0	10	0	0	0	0	0	0	0	8	0	0	1	0	1	0
11:00 AM	1	4	1	0	0	1	0	0	2	7	2	0	0	0	0	0
11:15 AM	0	10	1	0	1	3	0	0	1	2	1	0	0	0	0	0
11:30 AM	0	10	1	0	1	4	0	0	0	9	0	0	1	1	3	0
11:45 AM	1	9	1	0	2	1	0	0	0	12	0	0	0	0	0	0
12:00 PM	1	7	1	0	0	1	0	0	0	9	2	0	1	0	1	0
12:15 PM	0	7	0	0	2	0	0	0	0	7	1	0	3	0	1	0
12:30 PM	0	9	1	0	1	0	0	0	0	6	1	0	0	0	0	0
12:45 PM	0	13	0	0	1	1	0	0	0	7	2	0	0	1	0	0
1:00 PM	0	10	1	0	1	1	0	0	0	5	1	0	0	0	0	0
1:15 PM	1	15	0	0	0	0	0	0	1	9	0	0	2	1	0	0
1:30 PM	0	9	0	0	0	2	0	0	0	10	2	0	1	0	0	0
1:45 PM	1	6	1	0	1	2	0	0	0	10	0	0	3	0	0	0
2:00 PM	0	11	2	0	0	0	0	0	0	11	3	0	2	0	1	0
2:15 PM	0	8	0	0	2	1	0	0	1	9	0	0	0	1	1	0
2:30 PM	1	6	1	0	2	0	0	0	0	12	0	0	1	1	0	0
2:45 PM	0	8	1	0	1	0	1	0	0	17	2	0	1	0	1	0
3:00 PM	0	10	0	0	0	1	0	0	0	6	0	0	1	0	1	0
3:15 PM	1	14	0	0	0	2	0	0	0	9	2	0	2	2	1	0
3:30 PM	0	17	0	0	3	1	0	0	0	16	0	0	1	1	0	0
3:45 PM	0	12	0	0	0	1	0	0	0	16	4	0	3	0	0	0
4:00 PM	1	11	1	0	1	0	1	0	1	13	1	0	1	2	1	0
4:15 PM	1	25	1	0	2	2	0	0	1	10	0	0	0	2	0	0
4:30 PM	0	10	3	0	1	2	0	0	0	13	0	0	1	0	1	0
4:45 PM	0	16	0	0	1	2	0	0	0	17	0	0	2	1	2	0
5:00 PM	0	18	2	0	1	2	0	0	1	13	4	0	2	2	0	0
5:15 PM	1	16	1	0	2	2	0	0	0	18	0	0	2	2	2	0
5:30 PM	1	20	0	0	3	1	0	0	0	21	2	0	3	1	2	0
5:45 PM	0	18	0	0	2	2	0	0	0	15	1	0	1	0	2	0

Study Name **Location 22 Pine St & Magnetic Ave**
Start Date **10/02/2013**
Start Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Magnetic Ave Westbound				Pine St Northbound				Magnetic Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 22 Pine St & Magnetic Ave**
Start Date **10/02/2013**
Start Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Magnetic Ave Westbound				Pine St Northbound				Magnetic Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 22 Pine St & Magnetic Ave**
Start Date **10/02/2013**
Start Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Crossing North Leg	Magnetic Ave Crossing East Leg	Pine St Crossing South Leg	Magnetic Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	2	0	2
6:30 AM	0	0	0	0
6:45 AM	0	2	2	1
7:00 AM	0	1	1	0
7:15 AM	1	2	1	4
7:30 AM	0	0	0	1
7:45 AM	0	1	0	0
8:00 AM	0	0	0	0
8:15 AM	1	1	0	0
8:30 AM	2	0	0	0
8:45 AM	0	1	1	0
9:00 AM	0	0	0	1
9:15 AM	0	1	0	0
9:30 AM	0	0	0	1
9:45 AM	0	0	0	0
10:00 AM	1	0	0	1
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	1	0	0	0
11:00 AM	0	1	0	1
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	3	1	3
12:30 PM	1	0	2	0
12:45 PM	0	1	1	1
1:00 PM	0	1	0	0
1:15 PM	0	0	0	1
1:30 PM	0	2	1	0
1:45 PM	0	0	1	0
2:00 PM	0	1	0	1
2:15 PM	0	0	1	0
2:30 PM	0	0	2	5
2:45 PM	1	1	2	1
3:00 PM	0	0	2	0
3:15 PM	0	0	0	0
3:30 PM	1	0	0	0
3:45 PM	0	1	2	3
4:00 PM	0	1	1	1
4:15 PM	0	1	2	4
4:30 PM	3	1	4	2
4:45 PM	1	1	1	0
5:00 PM	1	0	0	0
5:15 PM	1	2	0	1
5:30 PM	1	0	0	4
5:45 PM	0	1	0	1

Location 22.xls

Study Name **Location 22 Pine St & Magnetic Ave**
Start Date **10/02/2013**
Start Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Crossing North Leg	Magnetic Ave Crossing East Leg	Pine St Crossing South Leg	Magnetic Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	1
7:30 AM	0	0	0	0
7:45 AM	0	1	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	2	0	1
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	1	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	1	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	1
2:00 PM	0	0	0	1
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	1
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	2
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	1	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0

Study Name **Location 22 Pine St & Magnetic Ave**
Start Date **10/02/2013**
Start Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Magnetic Ave Westbound				Pine St Northbound				Magnetic Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	2	0	1	0	0	7	0	0	1	0	2	0
6:15 AM	0	2	0	0	1	0	0	0	0	3	0	0	0	0	1	0
6:30 AM	0	2	0	0	1	1	0	0	0	11	1	0	0	1	1	0
6:45 AM	0	1	1	0	1	4	0	0	0	6	2	0	0	0	0	0
7:00 AM	1	5	0	0	0	1	1	0	0	11	2	0	0	0	0	0
7:15 AM	1	5	0	0	0	1	0	0	0	15	2	0	0	0	0	0
7:30 AM	1	5	0	0	1	0	0	0	0	6	0	0	0	0	1	0
7:45 AM	0	5	1	0	1	1	0	0	0	15	1	0	0	0	1	0
8:00 AM	0	2	0	0	0	2	0	0	0	9	0	0	3	1	0	0
8:15 AM	0	5	1	0	0	1	0	0	0	6	0	0	0	1	1	0
8:30 AM	1	2	1	0	0	4	0	0	0	12	3	0	0	0	0	0
8:45 AM	0	2	1	0	1	1	1	0	0	17	4	0	0	2	1	0
9:00 AM	0	2	0	0	1	1	0	0	0	5	1	0	0	0	0	0
9:15 AM	0	5	0	0	0	2	1	0	0	7	2	0	1	1	0	0
9:30 AM	1	9	0	0	1	1	0	0	0	12	1	0	0	1	0	0
9:45 AM	0	3	0	0	1	1	1	0	0	12	3	0	0	1	1	0
10:00 AM	0	3	0	0	1	0	0	0	1	8	0	0	0	0	1	0
10:15 AM	0	5	0	0	1	1	1	0	0	4	1	0	0	0	0	0
10:30 AM	0	3	0	0	2	0	1	0	0	9	0	0	1	1	0	0
10:45 AM	0	10	0	0	0	0	0	0	0	9	0	0	1	0	1	0
11:00 AM	1	5	1	0	0	1	0	0	2	8	2	0	0	0	0	0
11:15 AM	0	10	1	0	1	3	0	0	1	2	1	0	0	0	0	0
11:30 AM	0	10	1	0	1	4	0	0	0	11	0	0	1	1	3	0
11:45 AM	1	9	1	0	2	1	0	0	0	13	0	0	0	0	0	0
12:00 PM	1	7	1	0	0	1	0	0	0	10	2	0	1	0	1	0
12:15 PM	0	7	0	0	2	0	0	0	0	7	1	0	3	0	1	0
12:30 PM	0	9	1	0	1	0	0	0	0	7	1	0	0	0	0	0
12:45 PM	0	13	0	0	1	1	0	0	0	8	2	0	0	1	0	0
1:00 PM	0	10	1	0	1	1	0	0	0	7	1	0	0	0	0	0
1:15 PM	1	15	0	0	0	0	0	0	1	9	0	0	2	1	0	0
1:30 PM	0	9	0	0	0	2	0	0	0	11	2	0	1	0	0	0
1:45 PM	1	6	1	0	1	2	0	0	0	10	0	0	3	0	0	0
2:00 PM	0	11	2	0	0	0	0	0	0	13	3	0	2	0	1	0
2:15 PM	0	8	0	0	2	1	0	0	1	9	0	0	0	1	1	0
2:30 PM	1	7	1	0	2	0	0	0	0	14	0	0	1	1	0	0
2:45 PM	0	9	1	0	1	0	1	0	0	18	2	0	1	0	1	0
3:00 PM	0	10	0	0	0	1	0	0	0	9	0	0	1	0	1	0
3:15 PM	1	14	0	0	0	2	0	0	0	10	2	0	2	2	1	0
3:30 PM	0	17	0	0	3	1	0	0	0	17	0	0	1	1	0	0
3:45 PM	0	12	0	0	0	1	0	0	0	17	4	0	3	0	0	0
4:00 PM	1	11	1	0	1	0	1	0	1	14	1	0	1	2	1	0
4:15 PM	1	25	1	0	2	2	0	0	1	10	0	0	0	2	0	0
4:30 PM	0	10	3	0	1	2	0	0	0	14	0	0	1	1	1	0
4:45 PM	0	16	0	0	1	2	0	0	0	17	0	0	2	1	2	0
5:00 PM	0	18	2	0	1	2	0	0	1	13	4	0	2	2	0	0
5:15 PM	1	16	1	0	2	2	0	0	0	19	0	0	2	2	2	0
5:30 PM	1	20	0	0	3	1	0	0	0	22	2	0	3	1	2	0
5:45 PM	0	18	0	0	2	2	0	0	0	15	1	0	1	0	2	0

Study Name **Location 23 Front St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Magnetic St Westbound				Front St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	7	1	0	2	0	0	0
6:15 AM	0	3	0	0	0	0	0	0	0	3	3	0	0	1	0	0
6:30 AM	1	1	0	0	0	2	0	0	1	20	0	0	0	1	0	0
6:45 AM	0	10	0	0	0	3	0	0	0	18	1	0	0	0	0	0
7:00 AM	0	5	0	0	0	6	0	0	0	17	2	0	1	0	0	0
7:15 AM	0	9	1	0	1	2	2	0	0	17	2	0	3	0	0	0
7:30 AM	0	8	0	0	0	2	1	0	0	26	0	0	1	0	0	0
7:45 AM	0	11	0	0	1	5	0	0	0	30	3	0	1	0	1	0
8:00 AM	0	6	1	0	0	3	0	0	0	12	2	0	1	5	0	0
8:15 AM	0	6	0	0	0	2	0	0	0	8	0	0	1	0	0	0
8:30 AM	1	10	0	0	2	5	1	0	1	22	2	0	0	0	0	0
8:45 AM	0	10	0	0	0	8	4	0	0	37	1	0	3	2	0	0
9:00 AM	0	6	1	0	0	4	1	0	0	22	0	0	1	1	0	0
9:15 AM	0	5	0	0	1	3	2	0	0	20	0	0	1	0	1	0
9:30 AM	0	15	0	0	0	2	1	0	0	26	3	0	0	2	0	0
9:45 AM	0	10	0	0	1	3	1	0	0	34	4	0	2	2	0	0
10:00 AM	0	7	0	0	0	1	0	0	2	21	0	0	1	1	0	0
10:15 AM	0	7	0	0	0	3	0	0	0	15	0	0	2	0	0	0
10:30 AM	1	8	0	0	0	3	0	0	0	21	2	0	5	1	0	0
10:45 AM	0	11	0	0	0	0	0	0	0	27	2	0	1	3	0	0
11:00 AM	0	14	0	0	0	5	0	0	1	20	0	0	3	1	0	0
11:15 AM	1	12	0	0	1	3	2	0	0	22	0	0	2	0	0	0
11:30 AM	0	9	0	0	1	2	0	0	0	27	3	1	3	5	3	0
11:45 AM	0	10	0	0	2	4	0	0	0	25	2	0	1	2	0	0
12:00 PM	0	12	0	0	0	3	0	0	0	34	3	0	2	1	1	0
12:15 PM	0	13	0	0	1	0	0	0	4	26	2	0	3	2	0	0
12:30 PM	0	11	0	0	0	1	1	0	0	23	2	0	2	0	0	0
12:45 PM	0	10	0	0	1	3	0	0	2	29	4	0	3	1	1	0
1:00 PM	0	7	0	0	0	2	0	0	0	18	1	0	2	1	0	0
1:15 PM	0	11	1	0	0	3	0	0	0	22	0	0	3	3	0	0
1:30 PM	0	8	1	0	1	6	0	0	0	26	2	0	0	3	0	0
1:45 PM	1	16	1	0	1	3	0	0	1	22	1	0	2	1	0	0
2:00 PM	0	9	1	0	2	1	2	0	0	20	1	0	1	3	0	0
2:15 PM	1	22	0	0	0	3	1	0	1	24	2	0	1	2	0	0
2:30 PM	1	19	2	0	1	1	1	0	0	25	2	0	3	3	0	0
2:45 PM	0	10	0	0	0	5	0	0	1	26	5	0	1	5	1	0
3:00 PM	0	18	0	0	0	2	0	0	0	16	2	0	3	2	0	0
3:15 PM	0	12	1	0	0	4	0	0	0	16	0	0	1	3	0	0
3:30 PM	1	23	0	0	0	2	0	0	2	30	2	0	2	3	0	0
3:45 PM	0	19	1	0	2	3	0	0	0	30	2	0	2	3	2	0
4:00 PM	0	18	1	0	0	2	1	0	1	29	0	0	3	5	0	0
4:15 PM	1	26	1	0	0	3	1	0	1	27	2	0	1	3	3	0
4:30 PM	2	19	0	0	0	2	0	0	0	20	6	0	5	4	1	0
4:45 PM	0	23	1	0	1	1	0	0	1	31	2	0	4	4	1	0
5:00 PM	1	33	0	0	0	8	0	0	2	29	3	0	5	6	1	0
5:15 PM	0	24	1	0	0	3	0	0	0	35	3	0	2	6	1	0
5:30 PM	1	20	3	0	0	3	1	0	0	46	4	0	3	5	2	0
5:45 PM	0	23	0	0	1	2	1	0	1	26	3	0	2	6	0	0

Location 23.xls

Study Name **Location 23 Front St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Magnetic St Westbound				Front St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	2	1	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 23 Front St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Magnetic St Westbound				Front St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 23 Front St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Magnetic St Crossing East Leg	Front St Crossing South Leg	Magnetic St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	1
6:15 AM	0	0	1	0
6:30 AM	0	0	1	0
6:45 AM	1	4	0	8
7:00 AM	0	0	0	0
7:15 AM	0	0	1	0
7:30 AM	0	0	0	0
7:45 AM	1	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	1	0
8:30 AM	0	0	0	2
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	2	2
9:45 AM	0	0	0	2
10:00 AM	0	0	0	0
10:15 AM	0	1	0	0
10:30 AM	0	1	0	0
10:45 AM	0	2	0	0
11:00 AM	1	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	1	0	0
11:45 AM	1	0	1	0
12:00 PM	2	0	0	0
12:15 PM	0	0	2	1
12:30 PM	4	0	1	2
12:45 PM	0	0	1	1
1:00 PM	0	0	1	1
1:15 PM	0	0	0	1
1:30 PM	0	0	0	0
1:45 PM	0	1	0	0
2:00 PM	4	1	2	0
2:15 PM	1	0	3	0
2:30 PM	2	0	2	1
2:45 PM	0	0	0	0
3:00 PM	0	1	3	1
3:15 PM	0	0	0	0
3:30 PM	2	0	0	1
3:45 PM	0	0	3	0
4:00 PM	0	1	1	0
4:15 PM	1	2	5	0
4:30 PM	4	2	0	0
4:45 PM	0	1	0	2
5:00 PM	1	0	0	0
5:15 PM	2	2	1	0
5:30 PM	1	0	0	0
5:45 PM	0	0	2	0

Study Name **Location 23 Front St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Magnetic St Crossing East Leg	Front St Crossing South Leg	Magnetic St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	1	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	1	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	1	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	1	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	1
2:00 PM	1	0	0	0
2:15 PM	0	0	0	1
2:30 PM	0	1	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	1	0
3:30 PM	0	1	0	0
3:45 PM	0	0	0	1
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	1
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	1	0	0	0
5:30 PM	2	0	0	0
5:45 PM	0	1	0	0

Study Name **Location 23 Front St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Magnetic St Westbound				Front St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	7	1	0	2	0	0	0
6:15 AM	0	3	0	0	0	0	0	0	0	3	3	0	0	1	0	0
6:30 AM	1	1	0	0	0	2	0	0	1	20	0	0	0	1	0	0
6:45 AM	0	10	0	0	0	3	0	0	0	18	1	0	0	0	0	0
7:00 AM	0	5	0	0	0	6	0	0	0	17	2	0	1	0	0	0
7:15 AM	0	9	1	0	1	2	2	0	0	18	2	0	3	0	0	0
7:30 AM	0	8	0	0	0	2	1	0	0	26	0	0	1	0	0	0
7:45 AM	0	11	0	0	1	5	0	0	0	30	3	0	1	0	1	0
8:00 AM	0	6	1	0	0	3	0	0	0	12	2	0	1	5	0	0
8:15 AM	0	6	0	0	0	2	0	0	0	9	0	0	1	0	0	0
8:30 AM	1	10	0	0	2	5	1	0	1	23	2	0	0	0	0	0
8:45 AM	0	10	0	0	0	8	4	0	0	39	1	0	4	2	0	0
9:00 AM	0	6	1	0	0	4	1	0	0	22	0	0	1	1	0	0
9:15 AM	0	5	0	0	1	3	2	0	0	20	0	0	1	1	1	0
9:30 AM	0	15	0	0	0	2	1	0	0	27	3	0	0	2	0	0
9:45 AM	0	10	0	0	1	3	1	0	0	34	4	0	2	2	0	0
10:00 AM	0	7	0	0	0	1	0	0	2	21	0	0	1	1	0	0
10:15 AM	0	7	0	0	0	3	0	0	1	15	0	0	2	0	0	0
10:30 AM	1	8	0	0	0	3	0	0	0	21	2	0	5	1	0	0
10:45 AM	0	12	0	0	0	0	0	0	0	27	2	0	1	3	0	0
11:00 AM	0	14	0	0	0	5	0	0	1	21	0	0	3	1	0	0
11:15 AM	1	12	0	0	1	3	2	0	0	22	0	0	2	0	0	0
11:30 AM	0	9	0	0	1	2	0	0	0	27	3	1	4	5	3	0
11:45 AM	0	10	0	0	2	4	0	0	0	26	2	0	1	2	0	0
12:00 PM	0	12	0	0	0	3	0	0	0	34	3	0	2	1	1	0
12:15 PM	0	13	0	0	1	0	0	0	4	27	3	0	3	2	0	0
12:30 PM	0	11	0	0	0	1	1	0	0	23	2	0	2	0	0	0
12:45 PM	0	10	0	0	1	3	0	0	2	30	4	0	3	1	1	0
1:00 PM	0	7	0	0	0	2	0	0	0	18	1	0	2	1	0	0
1:15 PM	0	11	1	0	0	3	0	0	0	22	0	0	3	3	0	0
1:30 PM	0	9	1	0	1	6	0	0	0	27	2	0	0	3	0	0
1:45 PM	1	16	1	0	1	3	0	0	1	22	2	0	2	1	0	0
2:00 PM	0	9	1	0	2	1	2	0	0	20	1	0	1	3	0	0
2:15 PM	1	22	0	0	0	3	1	0	1	24	2	0	1	2	0	0
2:30 PM	1	20	2	0	1	1	1	0	0	27	3	0	3	3	0	0
2:45 PM	0	10	0	0	0	5	0	0	1	26	5	0	1	5	1	0
3:00 PM	0	19	0	0	0	2	0	0	0	17	2	0	3	2	0	0
3:15 PM	0	12	1	0	0	4	0	0	0	16	0	0	1	3	0	0
3:30 PM	1	23	0	0	0	2	0	0	2	31	2	0	2	3	0	0
3:45 PM	0	20	1	0	2	3	0	0	0	31	2	0	2	3	2	0
4:00 PM	0	19	1	0	0	2	1	0	1	29	0	0	3	5	0	0
4:15 PM	1	27	1	0	0	3	1	0	1	28	2	0	1	3	3	0
4:30 PM	2	20	0	0	0	2	0	0	0	20	6	0	5	4	1	0
4:45 PM	0	23	1	0	1	1	0	0	1	31	2	0	4	4	1	0
5:00 PM	1	33	0	0	0	8	0	0	2	29	3	0	5	6	1	0
5:15 PM	0	25	1	0	0	3	0	0	0	35	3	0	2	6	1	0
5:30 PM	1	20	3	0	0	3	1	0	0	47	4	0	3	5	2	0
5:45 PM	0	23	0	0	1	2	1	0	1	26	3	0	2	6	0	0

Study Name **Location 24 3rd St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Magnetic St Westbound				3rd St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	7	2	0	3	0	0	0	1	15	2	0	1	1	0	0
6:15 AM	1	7	0	0	0	3	0	0	0	13	2	0	0	1	0	0
6:30 AM	0	8	0	0	0	3	0	0	1	28	0	0	1	0	0	0
6:45 AM	4	15	0	0	1	4	0	0	0	35	4	0	1	0	0	0
7:00 AM	0	26	0	0	0	7	0	0	0	40	4	0	2	1	0	0
7:15 AM	3	47	3	0	1	3	1	0	1	55	4	0	7	1	0	0
7:30 AM	1	32	0	0	0	3	0	0	1	46	3	0	0	0	0	0
7:45 AM	2	35	0	0	1	9	2	0	0	61	6	0	1	1	0	0
8:00 AM	1	33	0	0	2	3	0	0	4	54	3	0	0	4	0	0
8:15 AM	0	24	1	0	0	5	1	0	0	29	5	0	2	1	0	0
8:30 AM	0	39	0	0	1	5	5	0	0	38	5	0	2	0	0	0
8:45 AM	2	55	1	0	3	10	1	0	3	58	2	0	5	3	0	0
9:00 AM	1	45	0	0	4	2	0	0	3	37	3	0	2	2	2	0
9:15 AM	0	35	1	0	1	3	0	0	0	38	8	0	2	0	0	0
9:30 AM	3	44	0	0	1	5	1	0	1	60	7	0	4	2	1	0
9:45 AM	3	77	2	0	7	4	2	0	2	60	6	0	4	1	3	0
10:00 AM	2	45	3	0	3	2	0	0	1	47	4	0	4	1	0	0
10:15 AM	1	35	0	0	1	2	0	0	1	41	7	0	7	1	2	0
10:30 AM	1	38	1	0	1	2	2	0	1	46	1	0	1	3	0	0
10:45 AM	4	69	1	0	0	1	0	0	2	56	6	0	9	3	1	0
11:00 AM	3	68	1	0	2	2	3	0	2	42	7	1	2	2	2	1
11:15 AM	5	67	1	0	1	1	1	0	1	52	5	0	3	1	1	0
11:30 AM	2	87	2	0	1	2	2	0	5	69	3	0	6	3	0	0
11:45 AM	2	98	3	0	3	4	3	0	1	73	8	0	12	1	4	0
12:00 PM	4	109	1	0	3	3	1	0	3	77	8	0	1	1	1	0
12:15 PM	3	78	2	0	3	1	0	0	3	68	15	0	4	2	0	0
12:30 PM	5	84	0	0	0	2	1	0	1	77	9	1	9	0	1	0
12:45 PM	4	95	2	0	4	6	0	0	2	77	11	0	2	1	1	0
1:00 PM	4	79	0	0	1	1	2	0	2	65	10	0	6	1	2	0
1:15 PM	0	67	0	0	2	3	0	0	5	61	8	0	7	2	1	0
1:30 PM	4	73	0	0	0	5	1	0	3	75	3	0	2	1	0	0
1:45 PM	6	90	5	0	1	4	0	0	1	60	4	0	10	2	0	0
2:00 PM	1	76	1	0	3	1	0	1	2	50	6	0	7	2	3	0
2:15 PM	2	88	1	0	1	5	3	0	1	48	7	0	4	0	0	0
2:30 PM	4	99	2	0	2	4	2	0	8	87	5	0	10	1	4	0
2:45 PM	0	99	4	0	3	6	0	0	3	66	2	0	8	2	1	0
3:00 PM	4	85	1	0	0	4	1	0	2	66	9	0	10	2	2	0
3:15 PM	2	84	2	0	1	5	0	0	0	66	4	0	10	5	1	0
3:30 PM	3	103	4	0	0	1	6	0	2	67	5	0	6	3	1	0
3:45 PM	4	97	3	0	2	2	1	0	4	65	7	0	8	4	1	0
4:00 PM	1	109	3	0	1	1	0	0	3	65	2	0	11	3	2	0
4:15 PM	1	88	3	0	3	2	1	0	5	60	3	0	8	3	2	0
4:30 PM	3	111	5	0	1	3	4	0	4	65	11	0	11	3	3	0
4:45 PM	4	104	2	0	2	1	3	0	5	70	6	0	5	4	3	0
5:00 PM	6	119	4	0	3	2	0	0	3	104	11	0	4	7	1	0
5:15 PM	4	94	2	0	8	4	3	0	10	79	9	0	6	3	2	0
5:30 PM	5	84	9	0	7	3	1	0	4	91	4	0	5	3	3	0
5:45 PM	3	101	2	0	1	7	0	0	6	81	6	1	7	1	0	0

Study Name **Location 24 3rd St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Magnetic St Westbound				3rd St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	1	1	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	0
11:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	3	1	0	0	0	0	0	0	1	0	0	1	0	0	0
2:00 PM	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
2:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 24 3rd St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Magnetic St Westbound				3rd St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 24 3rd St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Magnetic St Crossing East Leg	3rd St Crossing South Leg	Magnetic St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	2	0
6:15 AM	0	7	0	0
6:30 AM	0	2	0	1
6:45 AM	0	3	0	1
7:00 AM	1	1	1	1
7:15 AM	0	0	0	0
7:30 AM	1	1	0	1
7:45 AM	0	0	0	1
8:00 AM	1	0	0	1
8:15 AM	1	1	0	1
8:30 AM	0	2	0	1
8:45 AM	0	0	0	0
9:00 AM	0	1	0	4
9:15 AM	0	1	0	4
9:30 AM	0	2	0	2
9:45 AM	0	4	0	3
10:00 AM	2	7	0	0
10:15 AM	0	1	0	3
10:30 AM	2	2	0	0
10:45 AM	1	2	2	2
11:00 AM	0	2	1	1
11:15 AM	0	7	0	6
11:30 AM	1	6	0	0
11:45 AM	0	7	0	1
12:00 PM	3	4	3	7
12:15 PM	0	3	1	5
12:30 PM	2	1	0	2
12:45 PM	2	11	3	2
1:00 PM	1	1	2	5
1:15 PM	2	2	0	0
1:30 PM	0	1	0	1
1:45 PM	0	5	1	5
2:00 PM	0	2	0	0
2:15 PM	0	0	0	4
2:30 PM	3	9	0	1
2:45 PM	0	3	0	4
3:00 PM	1	4	1	1
3:15 PM	2	5	1	2
3:30 PM	2	5	3	7
3:45 PM	5	4	2	4
4:00 PM	0	3	2	3
4:15 PM	1	3	3	1
4:30 PM	1	7	1	2
4:45 PM	2	11	3	5
5:00 PM	1	6	0	3
5:15 PM	3	7	1	6
5:30 PM	1	8	0	4
5:45 PM	0	10	2	6

Study Name **Location 24 3rd St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Magnetic St Crossing East Leg	3rd St Crossing South Leg	Magnetic St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	1	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	2	0	0
8:15 AM	0	0	0	0
8:30 AM	0	3	0	0
8:45 AM	0	0	0	1
9:00 AM	0	1	1	1
9:15 AM	0	0	0	0
9:30 AM	0	1	0	2
9:45 AM	0	0	0	0
10:00 AM	0	0	1	0
10:15 AM	0	0	1	0
10:30 AM	0	0	1	0
10:45 AM	0	1	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	1	1	0	0
11:45 AM	0	0	0	1
12:00 PM	0	1	1	1
12:15 PM	0	1	0	1
12:30 PM	0	0	0	1
12:45 PM	0	1	0	1
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	1
2:00 PM	0	0	0	1
2:15 PM	1	3	0	0
2:30 PM	0	0	0	2
2:45 PM	0	0	0	2
3:00 PM	0	1	0	0
3:15 PM	0	4	1	1
3:30 PM	0	2	0	1
3:45 PM	0	0	0	0
4:00 PM	0	0	0	1
4:15 PM	0	0	0	1
4:30 PM	0	0	0	2
4:45 PM	0	0	0	1
5:00 PM	0	0	0	2
5:15 PM	0	0	0	1
5:30 PM	0	0	0	0
5:45 PM	0	0	0	2

Study Name **Location 24 3rd St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Magnetic St Westbound				3rd St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	7	2	0	3	0	0	0	1	15	2	0	1	1	0	0
6:15 AM	1	7	0	0	0	3	0	0	0	13	2	0	1	1	0	0
6:30 AM	0	10	0	0	0	3	0	0	1	28	0	0	1	0	0	0
6:45 AM	4	18	0	0	1	4	0	0	0	37	4	0	2	0	0	0
7:00 AM	0	26	0	0	0	7	0	0	0	40	4	0	2	1	0	0
7:15 AM	3	47	3	0	1	3	1	0	1	55	4	0	8	1	0	0
7:30 AM	1	33	0	0	0	3	0	0	1	46	3	0	0	0	0	0
7:45 AM	2	35	0	0	1	9	2	0	0	62	6	0	3	1	0	0
8:00 AM	1	34	0	0	2	3	0	0	4	57	3	0	0	4	0	0
8:15 AM	0	24	1	0	0	5	1	0	0	29	5	0	4	1	0	0
8:30 AM	0	40	0	0	1	5	5	0	0	38	5	0	2	0	0	0
8:45 AM	2	56	1	0	3	10	1	0	3	58	2	0	6	3	0	0
9:00 AM	1	46	0	0	4	2	0	0	3	38	3	0	3	2	2	0
9:15 AM	0	37	1	0	1	3	0	0	0	40	8	0	3	1	0	0
9:30 AM	3	46	0	0	1	5	1	0	1	60	7	0	5	2	1	0
9:45 AM	3	78	2	0	7	4	2	0	2	61	6	0	5	1	3	0
10:00 AM	2	45	3	0	3	2	0	0	1	47	4	0	5	1	0	0
10:15 AM	1	37	0	0	1	2	0	0	1	44	7	0	8	1	2	0
10:30 AM	1	40	1	0	1	2	2	0	2	46	1	0	1	3	0	0
10:45 AM	4	69	1	0	0	2	0	0	2	57	7	0	10	3	1	0
11:00 AM	3	71	1	0	2	2	3	0	2	42	7	1	2	2	2	1
11:15 AM	6	67	1	0	1	1	1	0	1	52	5	0	4	1	1	0
11:30 AM	2	87	2	0	1	2	2	0	6	70	4	0	7	3	0	0
11:45 AM	2	98	3	0	3	4	3	0	1	73	8	0	12	1	4	0
12:00 PM	4	111	1	0	3	3	1	0	3	79	10	0	1	1	1	0
12:15 PM	3	78	2	0	3	2	0	0	3	69	15	0	5	2	0	0
12:30 PM	5	85	0	0	0	2	1	0	1	77	9	1	9	0	1	0
12:45 PM	4	96	2	0	4	6	0	0	2	77	11	0	3	1	1	0
1:00 PM	4	79	0	0	1	1	2	0	2	65	10	0	6	1	2	0
1:15 PM	0	69	0	0	2	3	0	0	5	61	8	0	8	2	1	0
1:30 PM	4	74	0	0	0	5	1	0	3	76	3	0	2	1	0	0
1:45 PM	6	93	6	0	1	4	0	0	1	61	4	0	11	2	0	0
2:00 PM	1	78	1	0	3	2	0	1	2	53	6	0	7	2	3	0
2:15 PM	2	89	1	0	1	5	3	0	1	49	7	0	4	0	0	0
2:30 PM	4	100	2	0	3	4	2	0	8	87	5	0	11	1	4	0
2:45 PM	0	102	4	0	3	6	0	0	3	66	2	0	9	2	1	0
3:00 PM	4	85	1	0	0	4	1	0	2	69	9	0	10	2	2	0
3:15 PM	2	84	2	0	1	5	0	0	0	66	4	0	11	5	1	0
3:30 PM	3	103	4	0	0	1	6	0	2	68	5	0	7	3	1	0
3:45 PM	4	97	3	0	2	2	1	0	4	66	9	0	9	4	1	0
4:00 PM	1	110	3	0	1	1	0	0	3	65	3	0	11	3	2	0
4:15 PM	1	91	3	0	3	2	1	0	5	61	3	0	8	3	2	0
4:30 PM	3	111	5	0	1	3	4	0	4	65	11	0	12	3	3	0
4:45 PM	4	105	2	0	2	1	3	0	5	70	6	0	6	4	3	0
5:00 PM	6	119	4	0	3	2	0	0	3	104	11	0	4	7	1	0
5:15 PM	4	94	2	0	8	4	3	0	10	79	9	0	6	3	2	0
5:30 PM	5	84	9	0	7	3	1	0	4	91	4	0	6	3	3	0
5:45 PM	3	102	2	0	1	7	0	0	6	81	6	1	7	1	0	0

Study Name **Location 25 Presque Isle Ave/4th St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Magnetic St Westbound				4th St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	6	0	0	0	2	0	0	0	17	5	0	3	1	1	0
6:15 AM	1	8	0	0	0	6	0	0	0	15	12	0	1	1	1	0
6:30 AM	3	11	0	0	0	4	0	0	0	35	17	0	0	1	0	0
6:45 AM	5	9	1	0	0	11	1	0	0	41	27	0	1	0	2	0
7:00 AM	1	19	0	0	0	9	3	0	0	37	24	0	4	3	2	0
7:15 AM	3	32	4	0	0	8	1	0	0	24	14	0	9	5	1	0
7:30 AM	3	32	0	0	1	5	0	0	0	44	17	0	5	2	2	0
7:45 AM	4	39	1	0	0	15	2	0	1	74	32	0	0	2	2	0
8:00 AM	1	27	2	0	0	3	3	0	3	33	14	0	2	2	1	0
8:15 AM	2	31	0	0	1	7	1	0	1	20	17	0	1	2	1	0
8:30 AM	1	25	0	0	0	6	1	0	1	52	13	0	3	0	3	0
8:45 AM	2	55	2	0	1	11	0	0	5	68	14	0	2	4	1	0
9:00 AM	2	25	1	0	0	4	0	0	4	29	10	0	3	3	2	1
9:15 AM	2	20	1	0	1	7	1	0	3	25	9	0	2	1	4	0
9:30 AM	1	38	4	0	1	12	1	0	3	59	12	0	6	1	0	0
9:45 AM	3	40	0	0	2	10	0	0	4	54	7	0	4	4	5	0
10:00 AM	1	31	1	0	2	5	3	0	2	32	5	0	1	2	0	0
10:15 AM	3	35	2	0	3	4	2	0	1	35	10	0	2	3	1	0
10:30 AM	2	31	0	0	0	5	0	0	3	46	8	0	3	1	1	0
10:45 AM	5	41	2	0	5	7	1	0	4	40	8	0	2	4	3	0
11:00 AM	5	43	1	0	3	8	2	0	2	33	11	0	5	2	1	0
11:15 AM	3	45	1	0	5	5	3	0	2	43	9	0	2	3	1	0
11:30 AM	2	53	2	0	1	4	3	0	2	59	10	0	4	5	1	0
11:45 AM	0	68	5	0	2	9	3	0	3	75	13	0	13	8	3	0
12:00 PM	2	74	1	0	4	6	3	0	4	53	14	0	2	2	2	0
12:15 PM	3	54	4	0	6	11	2	0	4	50	7	0	5	3	1	0
12:30 PM	6	71	9	0	4	15	1	0	6	50	14	0	5	2	0	0
12:45 PM	6	78	3	0	6	12	3	0	3	55	14	0	13	6	2	0
1:00 PM	4	46	5	0	4	9	0	0	2	35	14	0	14	4	1	0
1:15 PM	6	48	1	1	1	9	1	0	3	53	3	0	9	3	0	0
1:30 PM	0	58	1	0	3	10	2	0	1	63	9	0	6	4	2	0
1:45 PM	1	55	4	0	4	8	3	0	2	54	10	0	5	6	2	0
2:00 PM	2	74	1	0	3	7	2	0	3	29	11	0	9	4	2	0
2:15 PM	2	80	2	0	3	11	3	0	0	42	9	0	12	3	3	0
2:30 PM	4	58	5	0	4	10	3	0	1	51	15	0	10	3	3	0
2:45 PM	2	82	3	0	6	7	1	0	4	57	13	0	7	4	4	0
3:00 PM	5	77	3	0	3	11	9	0	6	49	11	0	7	7	0	0
3:15 PM	1	77	3	0	3	9	6	0	3	48	4	0	12	4	4	0
3:30 PM	4	80	1	0	2	4	3	0	1	53	3	0	19	8	6	0
3:45 PM	3	83	4	0	4	9	2	0	1	45	14	0	14	9	5	0
4:00 PM	3	77	4	0	2	5	3	0	2	48	15	0	10	6	3	0
4:15 PM	1	58	3	0	2	3	2	0	4	40	9	0	7	4	4	0
4:30 PM	3	73	5	0	5	11	1	0	3	44	6	0	15	5	0	0
4:45 PM	0	81	8	0	2	6	1	0	3	51	16	0	11	9	2	0
5:00 PM	6	103	8	0	5	9	2	0	9	63	10	0	14	4	0	0
5:15 PM	1	70	5	0	2	8	1	0	5	55	9	0	14	9	6	0
5:30 PM	1	59	0	0	4	8	1	0	2	69	14	0	15	8	3	0
5:45 PM	3	62	4	0	3	8	1	0	2	78	13	0	6	5	1	0

Study Name **Location 25 Presque Isle Ave/4th St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Magnetic St Westbound				4th St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
8:15 AM	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
9:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:45 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
10:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	1	0	0	2	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
11:30 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0
2:00 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	0
2:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	2	0	0	0	0	0	0	2	1	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45 PM	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	2	0	1	0
4:15 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 25 Presque Isle Ave/4th St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Magnetic St Westbound				4th St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 25 Presque Isle Ave/4th St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Magnetic St Crossing East Leg	4th St Crossing South Leg	Magnetic St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	1	0	1	0
6:15 AM	0	0	0	1
6:30 AM	0	0	0	0
6:45 AM	0	0	0	2
7:00 AM	0	0	1	2
7:15 AM	0	0	0	0
7:30 AM	0	0	0	1
7:45 AM	0	0	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	1	1
8:30 AM	1	2	0	0
8:45 AM	0	1	0	1
9:00 AM	0	1	0	2
9:15 AM	1	2	1	2
9:30 AM	2	3	2	1
9:45 AM	0	2	0	0
10:00 AM	2	2	1	1
10:15 AM	0	0	1	0
10:30 AM	1	0	0	1
10:45 AM	1	0	1	3
11:00 AM	1	1	1	1
11:15 AM	0	0	1	0
11:30 AM	0	1	0	2
11:45 AM	1	1	0	1
12:00 PM	0	0	2	1
12:15 PM	1	0	0	0
12:30 PM	0	0	0	5
12:45 PM	0	0	3	3
1:00 PM	0	0	0	3
1:15 PM	0	0	0	1
1:30 PM	0	6	1	2
1:45 PM	0	1	0	3
2:00 PM	0	0	0	1
2:15 PM	0	1	0	1
2:30 PM	1	2	0	0
2:45 PM	0	0	0	0
3:00 PM	0	1	0	1
3:15 PM	0	1	0	1
3:30 PM	0	3	0	4
3:45 PM	1	2	2	2
4:00 PM	1	3	0	1
4:15 PM	1	1	0	1
4:30 PM	0	2	0	1
4:45 PM	2	1	0	1
5:00 PM	1	1	4	1
5:15 PM	3	2	6	2
5:30 PM	1	1	0	1
5:45 PM	1	1	1	6

Study Name **Location 25 Presque Isle Ave/4th St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Crossing North Leg	Magnetic St Crossing East Leg	4th St Crossing South Leg	Magnetic St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	1	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	1
7:45 AM	0	2	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	1
9:15 AM	0	0	0	1
9:30 AM	0	1	0	2
9:45 AM	0	0	0	7
10:00 AM	0	0	0	0
10:15 AM	0	0	0	1
10:30 AM	0	0	1	0
10:45 AM	0	0	0	1
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	1	0	2
11:45 AM	0	2	0	3
12:00 PM	0	0	0	0
12:15 PM	0	0	0	1
12:30 PM	0	0	0	0
12:45 PM	0	0	0	1
1:00 PM	0	0	0	2
1:15 PM	0	0	0	1
1:30 PM	0	0	0	3
1:45 PM	0	2	1	2
2:00 PM	0	1	0	2
2:15 PM	0	1	0	2
2:30 PM	0	0	0	2
2:45 PM	0	2	0	4
3:00 PM	0	4	0	3
3:15 PM	1	1	2	2
3:30 PM	0	1	0	2
3:45 PM	0	1	1	3
4:00 PM	0	0	0	1
4:15 PM	0	0	0	1
4:30 PM	2	0	0	2
4:45 PM	0	1	0	1
5:00 PM	0	1	2	1
5:15 PM	1	1	0	1
5:30 PM	0	0	0	1
5:45 PM	0	0	0	1

Study Name **Location 25 Presque Isle Ave/4th St & Magnetic St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Presque Isle Ave Southbound				Magnetic St Westbound				4th St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	9	0	0	0	2	0	0	0	17	5	0	3	1	1	0
6:15 AM	1	9	0	0	0	6	0	0	0	15	12	0	1	2	1	0
6:30 AM	3	12	0	0	0	4	0	0	0	35	17	0	0	1	0	0
6:45 AM	5	11	2	0	0	11	1	0	0	41	27	0	1	0	3	0
7:00 AM	1	19	0	0	0	9	3	0	0	38	24	0	4	3	2	0
7:15 AM	3	33	4	0	0	8	1	0	0	24	14	0	10	5	2	0
7:30 AM	3	34	0	0	1	5	0	0	0	44	17	0	5	2	2	0
7:45 AM	4	39	2	0	0	15	2	0	1	74	32	0	0	3	2	0
8:00 AM	1	29	2	0	0	3	3	0	3	34	14	0	2	3	1	0
8:15 AM	3	31	1	0	1	7	1	0	1	21	17	0	1	2	1	0
8:30 AM	1	26	0	0	0	6	1	0	1	53	13	0	3	0	3	0
8:45 AM	2	57	3	0	1	11	0	0	5	70	14	0	3	4	1	0
9:00 AM	2	26	1	0	0	4	0	0	4	30	12	0	3	3	2	1
9:15 AM	2	20	2	0	1	7	1	0	3	25	9	0	2	2	4	0
9:30 AM	1	38	4	0	1	12	1	0	3	60	12	0	6	2	0	0
9:45 AM	3	42	2	0	2	10	0	0	4	54	7	0	4	4	5	0
10:00 AM	1	31	1	0	2	5	3	0	2	33	5	0	1	3	0	0
10:15 AM	3	36	3	0	3	4	3	0	1	35	10	0	2	3	1	0
10:30 AM	2	31	0	0	0	5	0	0	3	46	8	0	3	1	1	0
10:45 AM	5	41	3	0	5	9	1	0	4	41	8	0	2	4	3	0
11:00 AM	5	43	1	0	3	8	2	0	2	36	11	0	5	2	2	0
11:15 AM	3	45	1	0	5	5	3	0	2	44	10	0	2	3	1	0
11:30 AM	2	56	3	0	1	4	3	0	2	59	10	0	4	5	1	0
11:45 AM	0	69	7	0	2	9	3	0	3	75	13	0	13	8	3	0
12:00 PM	2	74	1	0	5	7	3	0	4	53	14	0	2	2	2	0
12:15 PM	3	54	5	0	6	12	2	0	4	50	7	0	5	3	1	0
12:30 PM	6	73	9	0	4	15	1	0	6	51	14	0	5	3	0	0
12:45 PM	6	79	3	0	7	12	3	0	3	55	14	0	14	6	2	0
1:00 PM	5	46	5	0	4	9	0	0	2	35	14	0	14	4	1	0
1:15 PM	6	48	2	1	1	9	1	0	3	54	3	0	10	3	0	0
1:30 PM	0	58	1	0	3	10	2	0	1	63	9	0	6	4	2	0
1:45 PM	1	55	5	0	4	8	3	0	2	55	11	0	5	6	2	0
2:00 PM	2	76	1	0	3	8	2	0	3	29	11	0	9	4	4	0
2:15 PM	2	81	3	0	3	11	3	0	0	43	9	0	12	3	3	0
2:30 PM	4	62	5	0	4	10	3	0	1	51	15	0	10	3	3	0
2:45 PM	2	83	4	0	6	7	1	0	4	59	13	0	7	4	4	0
3:00 PM	5	78	3	0	3	11	9	0	6	50	12	0	7	7	0	0
3:15 PM	1	77	5	0	3	9	6	0	3	50	5	0	12	4	4	0
3:30 PM	4	80	1	0	2	4	3	0	1	53	3	0	20	8	6	0
3:45 PM	3	83	5	0	4	10	2	0	1	47	14	0	15	9	5	0
4:00 PM	3	78	4	0	2	5	3	0	2	49	15	0	12	6	4	0
4:15 PM	1	59	4	0	2	3	2	0	4	40	9	0	7	4	4	0
4:30 PM	3	74	5	0	5	11	1	0	3	45	6	0	15	5	1	0
4:45 PM	0	81	9	0	2	6	1	0	3	52	16	0	11	9	2	0
5:00 PM	6	104	8	0	5	9	2	0	9	63	10	0	14	4	0	0
5:15 PM	1	71	5	0	2	8	1	0	5	55	9	0	14	9	6	0
5:30 PM	1	59	1	0	4	8	1	0	2	69	14	0	15	8	3	0
5:45 PM	3	62	5	0	3	8	1	0	2	78	13	0	6	5	1	0

Study Name **Location 26 Lakeshore Blvd & Crescent St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Crescent St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	6	0	3	0	0	1	0	0
6:15 AM	2	8	0	7	0	0	2	0	0
6:30 AM	0	3	0	21	0	0	1	0	0
6:45 AM	0	7	0	20	0	0	1	0	0
7:00 AM	1	8	0	22	1	0	0	2	0
7:15 AM	1	10	0	23	2	0	2	1	0
7:30 AM	4	11	0	26	0	0	9	5	0
7:45 AM	1	18	0	30	9	0	0	5	0
8:00 AM	1	17	0	22	4	0	5	0	0
8:15 AM	2	16	0	12	2	0	0	0	0
8:30 AM	0	11	0	25	3	0	2	3	0
8:45 AM	2	20	0	32	1	0	2	3	0
9:00 AM	1	16	0	29	3	0	1	0	0
9:15 AM	1	23	0	28	2	0	1	4	0
9:30 AM	3	18	0	24	1	0	2	4	0
9:45 AM	3	23	0	19	1	0	2	2	0
10:00 AM	4	35	0	23	5	0	2	0	0
10:15 AM	0	22	0	30	1	0	2	1	0
10:30 AM	4	23	0	24	4	0	1	3	0
10:45 AM	1	18	0	31	2	0	1	2	0
11:00 AM	1	29	0	36	6	0	3	1	0
11:15 AM	3	26	0	42	1	0	1	5	0
11:30 AM	3	29	0	24	3	0	2	4	0
11:45 AM	2	29	0	28	4	0	4	3	0
12:00 PM	3	38	0	36	3	0	4	2	0
12:15 PM	3	31	0	48	4	0	1	3	0
12:30 PM	1	37	0	38	2	0	2	0	0
12:45 PM	5	55	0	37	2	0	5	2	0
1:00 PM	3	32	0	39	3	0	4	4	0
1:15 PM	4	36	0	36	2	0	2	3	0
1:30 PM	4	29	0	43	2	0	1	2	0
1:45 PM	2	31	0	41	8	0	2	4	0
2:00 PM	1	40	0	32	3	0	2	2	0
2:15 PM	3	44	0	54	2	0	2	1	0
2:30 PM	3	36	0	35	2	0	4	6	0
2:45 PM	3	39	0	46	4	0	4	0	0
3:00 PM	6	40	0	44	6	0	2	4	0
3:15 PM	2	61	0	34	3	0	1	0	0
3:30 PM	5	65	0	45	6	0	4	2	0
3:45 PM	2	47	0	33	5	0	3	1	0
4:00 PM	7	48	0	36	3	0	3	2	0
4:15 PM	3	53	0	46	4	0	6	2	0
4:30 PM	7	45	0	41	6	0	5	3	0
4:45 PM	9	41	0	53	3	0	2	4	0
5:00 PM	2	62	0	47	13	0	7	1	0
5:15 PM	2	39	0	46	10	0	6	4	0
5:30 PM	2	46	0	40	8	0	6	3	0
5:45 PM	5	36	0	50	5	0	7	4	0

Study Name **Location 26 Lakeshore Blvd & Crescent St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Crescent St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	1	0	0	0	0	0
6:15 AM	0	0	0	1	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	2	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	5	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	1	0	0
9:30 AM	1	0	0	1	0	0	0	0	0
9:45 AM	0	0	0	1	0	0	1	0	0
10:00 AM	0	1	0	0	0	0	0	0	0
10:15 AM	0	0	0	1	0	0	0	1	0
10:30 AM	0	1	0	1	0	0	0	0	0
10:45 AM	0	1	0	1	0	0	0	0	0
11:00 AM	0	1	0	1	0	0	0	0	0
11:15 AM	1	1	0	1	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0
11:45 AM	1	0	0	1	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	1	0
12:15 PM	0	0	0	1	0	0	0	0	0
12:30 PM	0	2	0	1	0	0	0	0	0
12:45 PM	0	1	0	2	0	0	0	0	0
1:00 PM	0	2	0	1	1	0	1	0	0
1:15 PM	0	1	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	1	1	0
1:45 PM	0	3	0	0	0	0	0	0	0
2:00 PM	0	1	0	1	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	2	0
2:30 PM	0	1	0	1	0	0	0	1	0
2:45 PM	0	4	0	1	0	0	1	1	0
3:00 PM	0	1	0	0	0	0	0	1	0
3:15 PM	0	1	0	1	0	0	0	0	0
3:30 PM	1	0	0	0	0	0	1	1	0
3:45 PM	0	0	0	0	1	0	1	0	0
4:00 PM	0	1	0	2	1	0	1	0	0
4:15 PM	0	1	0	1	0	0	0	0	0
4:30 PM	0	2	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	2	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 26 Lakeshore Blvd & Crescent St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Crescent St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	1	0	0	0	0	0
6:45 AM	0	0	0	3	0	0	0	0	0
7:00 AM	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	1	1	0	1	0	0	1	0	0
9:15 AM	0	1	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	1	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0
11:45 AM	0	0	0	1	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	1	0	0	0	0	0
12:45 PM	0	1	0	1	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	1	0	1	0	0	0	0	0
1:30 PM	0	0	0	1	1	0	0	0	0
1:45 PM	0	1	0	0	0	0	0	1	0
2:00 PM	0	1	0	1	1	0	0	0	0
2:15 PM	0	1	0	2	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0
2:45 PM	0	2	0	2	0	0	0	1	0
3:00 PM	0	1	0	1	0	0	1	0	0
3:15 PM	0	0	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	1	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 26 Lakeshore Blvd & Cresce**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Lakeshore Blvd Crossing South Leg	Crescent St Crossing East Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	3
6:15 AM	0	0	0
6:30 AM	0	0	1
6:45 AM	0	1	1
7:00 AM	0	3	1
7:15 AM	0	2	0
7:30 AM	0	0	0
7:45 AM	0	3	0
8:00 AM	0	1	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	1	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	1
9:45 AM	0	0	2
10:00 AM	0	0	5
10:15 AM	1	1	1
10:30 AM	0	0	2
10:45 AM	0	1	2
11:00 AM	2	0	0
11:15 AM	0	0	0
11:30 AM	2	0	0
11:45 AM	0	0	0
12:00 PM	1	0	0
12:15 PM	0	0	0
12:30 PM	2	0	0
12:45 PM	0	0	1
1:00 PM	0	0	0
1:15 PM	1	0	1
1:30 PM	0	2	0
1:45 PM	2	2	4
2:00 PM	0	0	1
2:15 PM	0	0	1
2:30 PM	2	0	2
2:45 PM	0	0	1
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	1
3:45 PM	0	0	1
4:00 PM	1	0	1
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	1	1	0
5:00 PM	2	4	2
5:15 PM	0	1	1
5:30 PM	0	1	2
5:45 PM	1	1	3

Study Name **Location 26 Lakeshore Blvd & Cresce**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Lakeshore Blvd Crossing South Leg	Crescent St Crossing East Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	1
9:45 AM	0	0	1
10:00 AM	0	0	1
10:15 AM	0	0	1
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	1	0	0
11:30 AM	0	0	2
11:45 AM	0	0	1
12:00 PM	0	0	1
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	2	1
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	1	0	2
2:45 PM	0	0	1
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	1	0	0
3:45 PM	0	0	0
4:00 PM	1	0	0
4:15 PM	0	0	1
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	1
5:15 PM	0	3	1
5:30 PM	0	2	1
5:45 PM	0	0	1

Study Name **Location 26 Lakeshore Blvd & Crescent St**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound			Lakeshore Blvd Northbound			Crescent St Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	6	0	4	0	0	1	0	0
6:15 AM	2	8	0	8	0	0	2	0	0
6:30 AM	0	4	0	22	0	0	1	0	0
6:45 AM	0	7	0	23	0	0	1	0	0
7:00 AM	1	9	0	23	1	0	0	2	0
7:15 AM	1	10	0	24	2	0	2	1	0
7:30 AM	4	12	0	27	0	0	9	5	0
7:45 AM	1	18	0	32	9	0	0	5	0
8:00 AM	1	17	0	22	4	0	5	0	0
8:15 AM	2	21	0	12	2	0	0	0	0
8:30 AM	0	12	0	25	4	0	2	3	0
8:45 AM	2	20	0	32	1	0	2	3	0
9:00 AM	2	17	0	30	3	0	2	0	0
9:15 AM	1	24	0	28	2	0	2	4	0
9:30 AM	4	19	0	25	1	0	2	4	0
9:45 AM	3	24	0	20	1	0	3	2	0
10:00 AM	4	36	0	23	5	0	2	0	0
10:15 AM	0	22	0	32	1	0	2	2	0
10:30 AM	4	25	0	25	4	0	1	3	0
10:45 AM	1	19	0	32	2	0	1	2	0
11:00 AM	1	30	0	37	6	0	3	1	0
11:15 AM	4	28	0	43	1	0	1	5	0
11:30 AM	3	29	0	26	3	0	2	4	0
11:45 AM	3	29	0	30	4	0	4	3	0
12:00 PM	3	39	0	36	3	0	4	3	0
12:15 PM	3	31	0	49	4	0	1	3	0
12:30 PM	1	40	0	40	2	0	2	0	0
12:45 PM	5	57	0	40	2	0	5	2	0
1:00 PM	3	34	0	40	4	0	5	4	0
1:15 PM	4	38	0	37	2	0	2	3	0
1:30 PM	4	29	0	44	3	0	2	3	0
1:45 PM	2	35	0	41	8	0	2	5	0
2:00 PM	1	42	0	34	4	0	2	2	0
2:15 PM	3	45	0	56	2	0	2	3	0
2:30 PM	3	38	0	36	2	0	4	7	0
2:45 PM	3	45	0	49	4	0	5	2	0
3:00 PM	6	42	0	45	6	0	3	5	0
3:15 PM	2	62	0	35	3	0	1	1	0
3:30 PM	6	65	0	45	6	0	5	3	0
3:45 PM	2	47	0	34	6	0	4	1	0
4:00 PM	7	49	0	38	4	0	4	2	0
4:15 PM	3	54	0	48	4	0	6	2	0
4:30 PM	7	47	0	41	6	0	5	3	0
4:45 PM	10	41	0	54	3	0	2	4	0
5:00 PM	2	62	0	47	13	0	7	2	0
5:15 PM	4	39	0	46	10	0	6	4	0
5:30 PM	2	46	0	40	8	0	6	4	0
5:45 PM	5	36	0	50	5	0	7	4	0

Study Name **Location 27 Lakeshore Blvd & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southeastbound			Lakeshore Blvd Northwestbound			Hewitt Ave Eastbound		
Start Time	Hard Right	Thru	U-Turn	Thru	Bear Left	U-Turn	Bear Right	Hard Left	U-Turn
6:00 AM	0	7	0	3	0	0	1	0	0
6:15 AM	1	10	0	6	0	0	0	2	0
6:30 AM	0	3	0	22	1	0	0	1	0
6:45 AM	0	8	0	18	0	0	1	2	0
7:00 AM	0	8	0	18	6	0	0	3	0
7:15 AM	0	12	0	22	2	0	1	3	0
7:30 AM	0	20	0	26	0	0	3	2	0
7:45 AM	2	18	0	37	5	0	3	4	0
8:00 AM	2	19	0	25	1	0	5	0	0
8:15 AM	0	15	0	14	4	0	4	0	0
8:30 AM	2	14	0	28	2	0	4	2	0
8:45 AM	1	19	0	29	2	0	1	2	0
9:00 AM	0	16	0	34	2	0	1	0	0
9:15 AM	0	25	0	26	1	0	1	1	0
9:30 AM	0	21	0	23	1	0	2	1	0
9:45 AM	1	23	0	20	2	0	1	1	0
10:00 AM	4	35	0	31	1	0	2	0	0
10:15 AM	1	20	0	29	1	0	1	0	0
10:30 AM	1	24	0	27	4	0	2	2	0
10:45 AM	0	20	0	32	2	0	2	2	0
11:00 AM	6	25	0	45	1	0	3	1	0
11:15 AM	3	23	0	37	1	0	3	1	0
11:30 AM	1	30	0	29	4	0	2	0	0
11:45 AM	1	31	0	30	1	0	2	2	0
12:00 PM	3	39	0	37	5	0	5	2	0
12:15 PM	4	28	0	49	3	0	3	4	0
12:30 PM	0	40	0	36	1	0	1	3	0
12:45 PM	3	57	0	34	3	0	3	4	0
1:00 PM	0	36	0	40	1	0	3	0	0
1:15 PM	2	38	0	40	0	0	2	1	0
1:30 PM	2	26	0	37	2	0	3	6	0
1:45 PM	2	32	0	45	4	0	3	3	0
2:00 PM	4	38	0	37	3	0	7	1	0
2:15 PM	6	35	0	56	4	0	5	2	0
2:30 PM	1	39	0	31	2	0	4	4	0
2:45 PM	4	43	0	48	9	0	6	3	0
3:00 PM	1	40	0	45	5	0	3	3	0
3:15 PM	0	63	0	38	2	0	3	1	0
3:30 PM	2	66	0	46	5	0	7	6	0
3:45 PM	3	46	0	41	2	0	2	1	0
4:00 PM	4	48	0	33	2	0	3	2	1
4:15 PM	5	50	0	44	5	0	3	2	0
4:30 PM	1	53	0	45	4	0	1	0	0
4:45 PM	3	39	0	52	4	0	5	4	0
5:00 PM	2	70	0	59	3	0	2	2	0
5:15 PM	5	37	0	53	3	0	4	3	0
5:30 PM	4	49	0	54	4	0	6	0	0
5:45 PM	3	39	0	55	5	0	1	2	0

Study Name **Location 27 Lakeshore Blvd & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southeastbound			Lakeshore Blvd Northwestbound			Hewitt Ave Eastbound		
Start Time	Hard Right	Thru	U-Turn	Thru	Bear Left	U-Turn	Bear Right	Hard Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	5	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	2	0	0	0	0	0	0	0
9:30 AM	0	0	0	1	0	0	0	0	0
9:45 AM	0	1	0	1	1	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0
10:15 AM	0	0	0	2	1	0	0	0	0
10:30 AM	0	1	0	1	1	0	1	0	0
10:45 AM	0	1	0	1	0	0	0	0	0
11:00 AM	0	0	0	1	1	0	0	0	0
11:15 AM	0	1	0	1	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	1	0	0
11:45 AM	0	0	0	0	1	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	0
12:15 PM	0	0	0	1	0	0	0	0	0
12:30 PM	1	1	0	1	2	0	0	0	0
12:45 PM	0	2	0	2	0	0	0	0	0
1:00 PM	0	2	0	2	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0
1:30 PM	0	1	0	1	0	0	0	0	0
1:45 PM	0	3	0	0	0	0	0	0	0
2:00 PM	1	0	0	3	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0
2:30 PM	0	2	0	1	0	0	0	0	0
2:45 PM	0	5	0	1	0	0	0	0	0
3:00 PM	1	0	0	0	0	0	0	0	0
3:15 PM	0	2	0	1	2	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	0	0
3:45 PM	0	1	0	2	1	0	0	0	0
4:00 PM	0	2	0	1	0	0	0	1	0
4:15 PM	0	1	0	1	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 27 Lakeshore Blvd & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southeastbound			Lakeshore Blvd Northwestbound			Hewitt Ave Eastbound		
Start Time	Hard Right	Thru	U-Turn	Thru	Bear Left	U-Turn	Bear Right	Hard Left	U-Turn
6:00 AM	0	0	0	1	0	0	0	0	0
6:15 AM	0	0	0	1	0	0	0	0	0
6:30 AM	0	1	0	2	0	0	0	0	0
6:45 AM	0	0	0	2	0	0	0	0	0
7:00 AM	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	2	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	1	0	0	0	0
9:00 AM	1	1	0	1	0	0	0	0	0
9:15 AM	1	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0
9:45 AM	1	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	2	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	1	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	1	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	1	1	0	0	0	0
11:45 AM	0	0	0	1	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	1	0	0	0	0	0
12:45 PM	0	1	0	1	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	1	0	0	1	0	0	0	0	0
1:30 PM	0	0	0	1	1	0	0	0	0
1:45 PM	0	1	0	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0	0	0	0
2:15 PM	1	0	0	2	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	2	0	0	1	0	0	0	0	0
3:00 PM	0	2	0	1	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 27 Lakeshore Blvd & Hewitt A**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing Northwest Leg	Lakeshore Blvd Crossing Southeast Leg	Hewitt Ave Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	2	1	1
6:15 AM	0	0	0
6:30 AM	0	0	3
6:45 AM	0	1	1
7:00 AM	2	0	1
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	1	1
8:00 AM	0	0	1
8:15 AM	0	1	0
8:30 AM	0	0	0
8:45 AM	0	2	0
9:00 AM	0	2	0
9:15 AM	0	1	1
9:30 AM	0	0	2
9:45 AM	0	2	1
10:00 AM	0	0	4
10:15 AM	0	0	3
10:30 AM	0	0	3
10:45 AM	0	1	1
11:00 AM	0	0	0
11:15 AM	2	0	2
11:30 AM	0	0	1
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	3	0
12:45 PM	0	1	1
1:00 PM	0	0	0
1:15 PM	0	0	3
1:30 PM	0	0	0
1:45 PM	0	0	2
2:00 PM	0	0	0
2:15 PM	0	0	1
2:30 PM	1	1	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	2	0	1
3:30 PM	0	0	0
3:45 PM	1	0	2
4:00 PM	1	1	2
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	1	0	1
5:00 PM	0	0	1
5:15 PM	0	0	0
5:30 PM	1	0	2
5:45 PM	0	0	3

Study Name **Location 27 Lakeshore Blvd & Hewitt A**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing Northwest Leg	Lakeshore Blvd Crossing Southeast Leg	Hewitt Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	1
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	2
11:45 AM	0	0	1
12:00 PM	0	0	1
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	1
1:15 PM	0	0	1
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	2
2:45 PM	0	0	1
3:00 PM	0	0	1
3:15 PM	0	0	0
3:30 PM	0	0	2
3:45 PM	0	0	1
4:00 PM	0	1	0
4:15 PM	0	1	1
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	1
5:15 PM	0	0	1
5:30 PM	0	0	1
5:45 PM	0	0	1

Study Name **Location 27 Lakeshore Blvd & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southeastbound			Lakeshore Blvd Northwestbound			Hewitt Ave Eastbound		
Start Time	Hard Right	Thru	U-Turn	Thru	Bear Left	U-Turn	Bear Right	Hard Left	U-Turn
6:00 AM	0	7	0	4	0	0	1	0	0
6:15 AM	1	10	0	7	0	0	0	2	0
6:30 AM	0	4	0	24	1	0	0	1	0
6:45 AM	0	8	0	20	0	0	1	2	0
7:00 AM	0	9	0	20	6	0	0	3	0
7:15 AM	0	12	0	22	2	0	1	3	0
7:30 AM	0	21	0	26	2	0	3	2	0
7:45 AM	2	18	0	38	6	0	3	4	0
8:00 AM	2	19	0	25	1	0	5	0	0
8:15 AM	0	20	0	14	4	0	4	0	0
8:30 AM	2	15	0	28	2	0	4	3	0
8:45 AM	1	19	0	29	3	0	1	2	0
9:00 AM	1	17	0	35	2	0	1	0	0
9:15 AM	1	27	0	26	1	0	1	1	0
9:30 AM	0	22	0	24	1	0	2	1	0
9:45 AM	2	24	0	21	3	0	1	1	0
10:00 AM	4	36	0	31	3	0	2	0	0
10:15 AM	1	20	0	31	2	0	1	0	0
10:30 AM	2	25	0	28	5	0	3	2	0
10:45 AM	0	21	0	33	3	0	2	2	0
11:00 AM	6	26	0	46	2	0	3	1	0
11:15 AM	4	24	0	38	1	0	3	1	0
11:30 AM	1	30	0	31	5	0	3	0	0
11:45 AM	1	31	0	31	2	0	2	2	0
12:00 PM	3	40	0	37	6	0	5	2	0
12:15 PM	4	28	0	50	3	0	3	4	0
12:30 PM	1	41	0	38	3	0	1	3	0
12:45 PM	3	60	0	37	3	0	4	4	0
1:00 PM	0	38	0	42	1	0	3	0	0
1:15 PM	3	39	0	41	0	0	2	1	0
1:30 PM	2	27	0	39	3	0	3	6	0
1:45 PM	2	36	0	45	4	0	3	3	0
2:00 PM	6	38	0	40	3	0	7	1	0
2:15 PM	7	36	0	58	4	0	5	2	0
2:30 PM	1	41	0	32	2	0	4	4	0
2:45 PM	6	48	0	50	9	0	6	3	0
3:00 PM	2	42	0	46	5	0	3	3	0
3:15 PM	0	65	0	39	4	0	3	1	0
3:30 PM	2	66	0	46	6	0	7	6	0
3:45 PM	3	47	0	43	3	0	2	1	0
4:00 PM	4	50	0	34	2	0	3	3	1
4:15 PM	5	51	0	46	5	0	3	2	0
4:30 PM	1	54	0	45	4	0	1	0	0
4:45 PM	3	39	0	53	4	0	5	4	0
5:00 PM	2	70	0	59	3	0	2	2	0
5:15 PM	5	37	0	53	3	0	4	3	0
5:30 PM	4	49	0	54	4	0	6	0	0
5:45 PM	3	39	0	55	5	0	1	2	0

Study Name **Location 28 Spruce St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Spruce St Southbound				Hewitt Ave Westbound				Spruce St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0
6:30 AM	0	6	0	0	0	2	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:00 AM	0	0	0	0	0	4	0	0	3	2	4	0	1	0	0	0
7:15 AM	2	2	0	0	0	4	0	0	2	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	3	1	0	1	3	1	0	2	1	0	0
7:45 AM	0	3	0	0	0	2	0	0	0	3	2	0	1	0	0	0
8:00 AM	0	2	1	0	2	1	0	0	1	1	0	0	2	0	2	0
8:15 AM	0	2	1	0	1	1	2	0	1	0	4	0	1	2	0	0
8:30 AM	1	2	0	0	0	3	0	0	0	2	1	0	2	3	0	0
8:45 AM	0	5	0	0	1	3	0	0	0	1	0	0	1	4	0	0
9:00 AM	2	1	0	0	0	1	1	0	0	4	0	0	0	0	0	0
9:15 AM	0	3	0	0	0	1	0	0	0	4	0	0	0	1	2	0
9:30 AM	0	2	0	0	0	3	0	0	0	4	0	0	0	2	0	0
9:45 AM	0	1	1	0	1	3	0	0	0	4	0	0	0	1	1	0
10:00 AM	0	2	0	0	0	1	0	0	0	5	0	0	0	0	1	0
10:15 AM	1	3	0	0	0	0	1	0	2	3	0	0	0	1	0	0
10:30 AM	0	1	0	0	2	3	0	0	0	1	0	0	1	3	1	0
10:45 AM	1	4	0	0	1	2	1	0	0	1	0	0	1	3	3	0
11:00 AM	0	3	0	0	1	4	0	0	1	3	0	0	1	0	0	0
11:15 AM	1	5	0	0	0	2	0	0	1	3	0	0	1	2	1	0
11:30 AM	2	1	0	0	0	4	1	0	1	7	0	0	0	2	1	0
11:45 AM	0	5	0	0	1	2	1	0	1	4	1	0	1	2	3	0
12:00 PM	2	2	2	0	0	2	2	0	2	3	2	0	1	3	0	0
12:15 PM	0	2	0	0	1	4	1	0	2	2	0	0	1	4	2	0
12:30 PM	1	1	1	0	0	5	0	0	0	2	0	0	0	4	1	0
12:45 PM	1	4	0	0	0	1	2	0	0	7	0	0	2	4	0	0
1:00 PM	0	2	1	0	1	0	0	0	2	0	0	0	1	2	1	0
1:15 PM	0	1	0	0	0	1	0	0	2	2	1	0	1	2	3	0
1:30 PM	1	1	0	0	0	0	0	0	0	2	1	0	0	6	2	0
1:45 PM	3	3	1	0	0	7	0	0	0	4	0	0	2	1	1	0
2:00 PM	1	1	0	0	0	0	0	0	0	1	1	0	0	6	2	0
2:15 PM	0	5	0	0	0	9	0	0	1	6	1	0	0	3	1	0
2:30 PM	1	5	0	0	1	3	2	0	2	5	0	0	1	5	1	0
2:45 PM	0	1	1	0	0	6	2	0	3	1	1	0	0	7	0	0
3:00 PM	0	3	0	0	0	5	2	0	2	2	0	0	1	7	1	0
3:15 PM	0	4	0	0	0	2	0	0	0	2	3	0	1	3	0	0
3:30 PM	2	3	0	0	0	4	1	0	3	3	1	0	2	5	0	0
3:45 PM	1	3	1	0	0	4	1	0	0	2	1	0	0	2	0	0
4:00 PM	0	3	0	0	1	2	0	0	0	1	2	0	1	4	4	0
4:15 PM	1	4	1	0	3	6	1	0	4	5	1	0	1	2	2	0
4:30 PM	1	1	0	0	1	3	0	0	0	8	0	0	0	0	1	0
4:45 PM	0	7	0	0	1	6	2	0	3	1	3	0	2	5	1	0
5:00 PM	2	8	0	0	1	3	0	0	2	3	1	0	2	2	2	0
5:15 PM	0	6	0	0	1	7	0	0	3	7	1	0	0	4	3	0
5:30 PM	0	2	0	0	0	5	1	0	2	2	0	0	0	2	4	0
5:45 PM	0	5	0	0	1	4	2	0	1	3	2	0	0	4	5	0

Study Name **Location 28 Spruce St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Spruce St Southbound				Hewitt Ave Westbound				Spruce St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 28 Spruce St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Spruce St Southbound				Hewitt Ave Westbound				Spruce St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 28 Spruce St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Spruce St Crossing North Leg	Hewitt Ave Crossing East Leg	Spruce St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	1	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	1	1	0	0
7:15 AM	0	0	1	1
7:30 AM	0	0	0	0
7:45 AM	0	0	0	5
8:00 AM	0	1	0	1
8:15 AM	0	1	0	2
8:30 AM	0	0	0	0
8:45 AM	0	0	0	1
9:00 AM	0	0	0	0
9:15 AM	0	2	1	1
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	1	0
10:15 AM	0	1	0	2
10:30 AM	0	0	0	0
10:45 AM	0	0	2	0
11:00 AM	0	0	1	1
11:15 AM	0	0	0	0
11:30 AM	0	1	0	4
11:45 AM	0	1	0	0
12:00 PM	1	0	0	0
12:15 PM	0	0	2	0
12:30 PM	0	1	7	1
12:45 PM	1	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	1	1	0
1:30 PM	0	0	0	1
1:45 PM	0	1	2	0
2:00 PM	2	0	1	0
2:15 PM	0	1	0	0
2:30 PM	0	1	1	1
2:45 PM	0	2	0	0
3:00 PM	0	0	0	0
3:15 PM	1	0	1	0
3:30 PM	1	0	0	0
3:45 PM	3	3	0	2
4:00 PM	0	1	1	2
4:15 PM	1	1	0	1
4:30 PM	0	0	1	3
4:45 PM	0	0	0	4
5:00 PM	2	1	0	3
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	2	5

Study Name **Location 28 Spruce St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Spruce St Crossing North Leg	Hewitt Ave Crossing East Leg	Spruce St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	1	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	1	0
3:30 PM	0	0	0	1
3:45 PM	0	0	0	1
4:00 PM	0	0	0	0
4:15 PM	0	0	0	1
4:30 PM	0	0	0	3
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	1
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0

Study Name **Location 28 Spruce St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Spruce St Southbound				Hewitt Ave Westbound				Spruce St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0
6:30 AM	0	6	0	0	0	2	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:00 AM	0	0	0	0	0	4	0	0	3	2	4	0	1	0	0	0
7:15 AM	2	2	0	0	0	4	0	0	2	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	3	1	0	1	3	1	0	2	1	0	0
7:45 AM	0	3	0	0	0	2	0	0	0	3	2	0	1	0	0	0
8:00 AM	0	2	1	0	2	1	0	0	1	2	0	0	2	0	3	0
8:15 AM	0	2	1	0	1	2	2	0	1	0	4	0	1	2	0	0
8:30 AM	1	2	0	0	0	4	0	0	1	2	1	0	2	3	0	0
8:45 AM	0	5	0	0	1	4	0	0	0	1	0	0	1	4	0	0
9:00 AM	2	1	0	0	0	1	1	0	0	4	0	0	0	0	0	0
9:15 AM	0	3	0	0	0	2	0	0	0	4	0	0	0	1	2	0
9:30 AM	0	2	0	0	0	5	0	0	0	4	0	0	0	2	0	0
9:45 AM	0	1	1	0	1	3	0	0	0	4	0	0	0	1	1	0
10:00 AM	0	2	0	0	0	2	0	0	0	5	0	0	0	0	1	0
10:15 AM	1	3	0	0	0	1	1	0	2	3	0	0	0	1	0	0
10:30 AM	0	1	0	0	2	5	0	0	1	1	0	0	1	3	1	0
10:45 AM	1	4	0	0	1	3	1	0	0	1	0	0	1	3	3	0
11:00 AM	0	3	0	0	1	5	1	0	1	3	0	0	1	0	0	0
11:15 AM	1	5	0	0	0	3	0	0	1	3	0	0	1	2	1	0
11:30 AM	2	1	0	0	0	4	1	0	2	7	0	0	0	2	1	0
11:45 AM	0	5	0	0	1	3	1	0	1	4	1	0	1	2	3	0
12:00 PM	2	3	2	0	1	3	2	0	2	3	2	0	1	3	0	0
12:15 PM	0	2	0	0	1	4	1	0	2	2	0	0	1	4	2	0
12:30 PM	1	1	1	0	0	5	0	0	0	2	0	0	0	4	1	0
12:45 PM	1	4	0	0	0	2	2	0	0	7	0	0	2	4	0	0
1:00 PM	1	2	1	0	1	1	0	0	2	0	0	0	1	2	1	0
1:15 PM	0	1	0	0	0	1	0	0	2	3	1	0	1	2	3	0
1:30 PM	1	1	0	0	1	1	0	0	0	2	1	0	0	6	2	0
1:45 PM	3	3	1	0	0	8	0	0	0	4	0	0	2	1	1	0
2:00 PM	1	1	0	0	0	1	0	0	0	1	1	0	0	6	2	0
2:15 PM	0	5	0	0	1	10	0	0	1	7	1	0	0	3	1	0
2:30 PM	1	5	0	0	1	3	2	0	2	5	0	0	1	5	1	0
2:45 PM	0	1	1	0	1	8	2	0	3	1	1	0	0	8	0	0
3:00 PM	0	3	0	0	0	6	2	0	2	3	0	0	1	7	1	0
3:15 PM	0	4	0	0	0	4	0	0	0	2	3	0	1	3	0	0
3:30 PM	2	3	0	0	0	4	1	0	3	4	1	0	2	5	0	0
3:45 PM	1	3	1	0	0	5	1	0	0	3	1	0	0	2	0	0
4:00 PM	0	3	0	0	1	2	0	0	0	1	2	0	1	5	4	0
4:15 PM	1	4	1	0	3	6	1	0	4	5	1	0	1	2	2	0
4:30 PM	1	2	0	0	1	3	0	0	0	9	0	0	0	0	1	0
4:45 PM	0	7	0	0	1	6	2	0	3	1	3	0	2	5	1	0
5:00 PM	2	8	0	0	1	3	0	0	2	3	1	0	2	2	2	0
5:15 PM	0	6	0	0	1	7	0	0	3	7	1	0	0	4	3	0
5:30 PM	0	2	0	0	0	5	1	0	2	2	0	0	0	2	4	0
5:45 PM	0	5	0	0	1	4	2	0	1	3	2	0	0	4	5	0

Study Name **Location 29 Pine St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Hewitt Ave Westbound				Pine St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	4	0	0	0	0	2	0	0	4	0	0	0	1	0	0
6:15 AM	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	0
6:30 AM	0	5	1	0	0	1	0	0	0	3	0	0	1	1	0	0
6:45 AM	0	3	1	0	1	1	0	0	0	4	0	0	3	1	0	0
7:00 AM	0	2	0	0	1	1	1	0	1	8	0	0	4	7	0	0
7:15 AM	0	6	0	0	1	1	2	0	0	5	0	0	2	3	0	0
7:30 AM	0	2	1	0	0	3	0	0	1	8	0	0	0	6	2	0
7:45 AM	1	9	1	0	0	2	0	0	1	12	0	0	0	6	1	0
8:00 AM	0	10	1	0	0	3	1	0	0	4	1	0	0	2	0	0
8:15 AM	0	3	0	0	0	3	0	0	1	4	1	0	0	3	0	0
8:30 AM	0	8	1	0	1	4	0	0	3	7	0	0	1	5	0	0
8:45 AM	0	6	0	0	0	4	4	0	3	4	1	0	1	7	0	0
9:00 AM	0	2	0	0	0	1	1	0	1	1	0	0	0	2	0	0
9:15 AM	0	5	0	0	0	1	0	0	2	5	1	0	0	2	0	0
9:30 AM	1	5	0	1	0	5	0	0	1	6	0	0	0	4	0	0
9:45 AM	0	6	2	0	1	1	2	0	2	3	0	0	0	4	0	0
10:00 AM	0	5	0	0	2	1	1	0	1	4	0	0	0	2	0	0
10:15 AM	0	3	0	0	2	2	0	0	0	1	0	0	0	1	0	0
10:30 AM	2	5	1	0	2	4	4	0	1	4	1	0	0	3	1	0
10:45 AM	0	3	1	0	1	5	0	0	2	9	0	0	0	2	0	0
11:00 AM	0	5	0	0	2	2	2	0	1	4	1	0	0	5	0	0
11:15 AM	0	3	1	0	0	1	0	0	2	6	0	0	0	2	1	0
11:30 AM	2	5	2	0	2	2	2	0	1	5	1	0	3	4	0	0
11:45 AM	1	6	2	0	1	3	0	0	3	8	1	0	2	4	1	0
12:00 PM	1	9	1	0	1	4	1	0	1	9	1	0	1	4	2	0
12:15 PM	1	8	0	0	0	10	0	0	1	9	0	0	0	3	1	0
12:30 PM	0	7	3	0	1	6	0	0	2	6	4	0	2	7	0	0
12:45 PM	2	8	1	0	1	4	1	0	5	8	1	0	1	1	1	0
1:00 PM	0	7	2	0	1	2	0	0	0	10	2	0	0	2	0	0
1:15 PM	4	11	2	0	1	4	2	0	1	7	1	0	0	2	1	0
1:30 PM	0	4	0	0	0	9	0	0	1	7	1	0	3	3	0	0
1:45 PM	0	10	1	0	2	4	1	0	2	6	2	0	0	10	1	0
2:00 PM	1	7	2	0	1	5	1	0	2	8	2	0	0	3	0	0
2:15 PM	0	7	0	0	1	4	4	0	3	10	1	0	0	9	2	0
2:30 PM	1	11	2	0	0	3	0	0	0	4	1	0	1	4	0	0
2:45 PM	2	5	4	0	0	9	3	0	2	10	1	0	2	7	0	0
3:00 PM	0	7	0	0	1	8	2	0	4	8	0	0	1	3	1	0
3:15 PM	0	7	3	0	4	4	1	1	1	12	1	0	0	3	0	0
3:30 PM	0	9	1	0	0	6	2	0	2	5	3	0	0	7	0	0
3:45 PM	0	11	1	0	0	3	4	0	1	15	1	0	1	5	1	0
4:00 PM	0	8	1	0	0	7	2	0	1	14	2	0	1	3	0	0
4:15 PM	0	11	0	0	2	4	0	0	1	18	2	0	1	7	0	0
4:30 PM	1	12	4	0	3	3	1	0	3	9	1	0	1	6	2	0
4:45 PM	0	11	3	0	1	9	1	0	2	6	3	0	1	9	2	0
5:00 PM	3	9	1	0	1	4	1	0	8	7	1	0	3	6	0	0
5:15 PM	1	18	1	0	4	9	2	0	1	13	3	0	0	5	1	0
5:30 PM	2	16	2	0	1	4	1	0	4	13	3	0	1	5	1	0
5:45 PM	1	14	1	0	3	4	4	0	2	9	2	0	1	5	2	0

Study Name **Location 29 Pine St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Hewitt Ave Westbound				Pine St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 29 Pine St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Hewitt Ave Westbound				Pine St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	2	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:30 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 29 Pine St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Crossing North Leg	Hewitt Ave Crossing East Leg	Pine St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	1
6:45 AM	0	0	0	0
7:00 AM	1	0	2	2
7:15 AM	6	0	1	3
7:30 AM	0	1	1	0
7:45 AM	0	0	1	0
8:00 AM	2	1	0	0
8:15 AM	1	1	0	0
8:30 AM	1	1	0	0
8:45 AM	1	1	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	1	0	1
9:45 AM	0	0	0	1
10:00 AM	0	0	0	0
10:15 AM	1	0	0	0
10:30 AM	0	0	0	2
10:45 AM	0	0	0	1
11:00 AM	0	0	0	2
11:15 AM	0	1	0	0
11:30 AM	0	0	1	0
11:45 AM	0	0	1	0
12:00 PM	0	1	1	0
12:15 PM	1	1	0	0
12:30 PM	2	0	0	1
12:45 PM	0	1	1	0
1:00 PM	2	0	0	0
1:15 PM	1	0	0	0
1:30 PM	0	0	1	0
1:45 PM	1	0	0	0
2:00 PM	0	5	7	6
2:15 PM	0	0	2	1
2:30 PM	0	2	3	3
2:45 PM	0	0	0	2
3:00 PM	5	0	1	0
3:15 PM	0	0	0	0
3:30 PM	0	0	2	1
3:45 PM	2	1	0	0
4:00 PM	4	0	2	0
4:15 PM	0	0	0	1
4:30 PM	0	0	0	0
4:45 PM	0	1	0	2
5:00 PM	0	0	2	0
5:15 PM	0	1	2	0
5:30 PM	0	0	0	4
5:45 PM	1	1	1	1

Study Name **Location 29 Pine St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Crossing North Leg	Hewitt Ave Crossing East Leg	Pine St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	6	0	0	6
8:45 AM	0	0	0	0
9:00 AM	1	0	0	1
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	1	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	1	0	1
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	1	0	0
5:45 PM	0	0	0	0

Study Name **Location 29 Pine St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound				Hewitt Ave Westbound				Pine St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	4	0	0	0	0	2	0	0	4	0	0	0	1	0	0
6:15 AM	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	0
6:30 AM	0	6	1	0	0	1	0	0	0	3	0	0	1	1	0	0
6:45 AM	0	5	1	0	1	1	0	0	0	4	0	0	3	1	0	0
7:00 AM	0	4	0	0	1	1	1	0	1	8	0	0	4	7	0	0
7:15 AM	0	7	0	0	1	1	2	0	0	5	0	0	2	3	0	0
7:30 AM	0	3	1	0	0	3	0	0	1	8	0	0	0	6	2	0
7:45 AM	1	9	1	0	0	2	0	0	1	12	0	0	0	6	1	0
8:00 AM	0	11	1	0	0	3	1	0	0	4	2	0	0	2	0	0
8:15 AM	0	3	0	0	0	3	0	0	1	4	1	0	0	4	0	0
8:30 AM	0	9	1	0	1	4	0	0	3	7	0	0	2	5	0	0
8:45 AM	0	6	0	0	0	4	4	0	3	4	1	0	3	7	0	0
9:00 AM	0	3	0	0	0	1	1	0	1	1	0	0	0	2	0	0
9:15 AM	0	5	0	0	0	1	0	0	2	5	1	0	1	2	0	0
9:30 AM	1	7	0	1	1	5	0	0	1	6	0	0	0	6	0	0
9:45 AM	0	6	2	0	1	1	2	0	2	3	0	0	0	4	0	0
10:00 AM	0	7	0	0	2	1	1	0	1	4	0	0	1	2	0	0
10:15 AM	0	3	0	0	2	2	0	0	0	1	0	0	0	2	0	0
10:30 AM	2	6	1	0	2	4	4	0	1	4	1	0	2	4	1	0
10:45 AM	0	3	1	0	1	5	0	0	2	9	0	0	1	2	0	0
11:00 AM	0	6	0	0	2	2	2	0	1	5	1	0	0	6	0	0
11:15 AM	0	3	2	0	0	1	0	0	2	7	0	0	1	2	1	0
11:30 AM	2	6	2	0	2	2	2	0	1	5	1	0	3	4	0	0
11:45 AM	1	6	2	0	1	3	0	0	3	8	1	0	3	5	1	0
12:00 PM	1	10	1	0	1	4	1	0	1	9	1	0	1	4	2	0
12:15 PM	1	8	0	0	0	10	0	0	1	9	0	0	0	3	1	0
12:30 PM	0	8	4	0	1	6	0	0	2	6	4	0	2	7	0	0
12:45 PM	2	8	1	0	1	4	1	0	5	8	1	0	1	1	1	0
1:00 PM	0	8	2	0	1	2	0	0	0	10	2	0	1	2	0	0
1:15 PM	4	11	2	0	1	4	2	0	1	7	1	0	0	3	1	0
1:30 PM	0	5	0	0	0	9	0	0	1	7	1	0	3	3	0	0
1:45 PM	0	10	1	0	2	4	1	0	2	6	2	0	1	10	1	0
2:00 PM	1	8	2	0	1	5	1	0	2	8	2	0	1	3	0	0
2:15 PM	0	7	0	0	1	4	4	0	3	10	1	0	0	10	2	0
2:30 PM	1	12	3	0	0	3	0	0	0	5	1	0	1	4	0	0
2:45 PM	2	5	4	0	0	9	3	0	2	10	2	0	3	8	0	0
3:00 PM	0	9	0	0	1	8	2	0	4	8	0	0	1	4	1	0
3:15 PM	0	7	3	0	4	4	2	1	1	12	1	0	0	5	0	0
3:30 PM	0	10	1	0	0	6	2	0	2	5	3	0	0	7	0	0
3:45 PM	0	11	1	0	0	3	4	0	1	15	1	0	1	5	1	0
4:00 PM	0	9	1	0	0	8	2	0	1	14	2	0	1	3	0	0
4:15 PM	0	11	0	0	2	4	0	0	1	18	2	0	1	7	0	0
4:30 PM	1	13	4	0	3	3	1	0	3	9	1	0	1	6	2	0
4:45 PM	0	11	3	0	1	9	1	0	2	6	3	0	1	9	2	0
5:00 PM	3	9	1	0	1	4	1	0	8	7	1	0	3	6	0	0
5:15 PM	1	19	1	0	4	9	2	0	1	13	3	0	0	5	1	0
5:30 PM	2	17	2	0	1	4	1	0	4	13	3	0	1	5	1	0
5:45 PM	1	14	1	0	3	4	4	0	2	9	2	0	1	5	2	0

Study Name **Location 30 Front St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Hewitt Ave Westbound				Front St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	0	0	1	0	0	0	0	5	1	0	0	1	0	0
6:15 AM	0	4	0	0	0	1	1	0	1	9	0	0	0	0	0	0
6:30 AM	1	2	0	0	0	1	2	0	0	18	0	0	0	0	0	0
6:45 AM	1	15	0	0	0	2	0	0	0	21	4	0	0	0	0	0
7:00 AM	0	8	0	0	3	3	0	0	2	18	4	0	0	1	0	0
7:15 AM	2	14	0	0	0	4	1	0	3	14	7	0	4	1	3	0
7:30 AM	5	19	0	0	2	6	1	0	2	22	3	0	3	4	1	0
7:45 AM	1	23	0	0	1	9	3	0	1	37	1	1	0	1	2	0
8:00 AM	0	11	1	0	3	2	2	0	1	14	4	1	1	1	1	0
8:15 AM	0	13	0	0	1	3	1	0	3	10	1	1	2	1	0	0
8:30 AM	1	19	2	0	1	5	0	0	1	22	3	0	1	4	1	0
8:45 AM	2	19	0	0	2	9	5	0	1	30	4	0	2	8	0	0
9:00 AM	0	14	0	0	0	8	1	0	1	27	2	0	3	2	0	0
9:15 AM	1	16	0	0	0	2	1	0	0	20	6	0	3	6	0	0
9:30 AM	0	17	1	0	1	7	0	0	3	25	3	0	2	3	1	0
9:45 AM	1	15	0	0	1	5	3	0	1	35	3	0	1	2	1	0
10:00 AM	1	16	0	0	1	3	2	0	5	28	1	0	3	3	1	0
10:15 AM	1	10	0	0	0	3	1	0	1	15	0	0	2	1	0	0
10:30 AM	1	15	1	0	2	5	1	0	0	21	4	0	2	8	0	0
10:45 AM	2	15	3	0	2	5	1	0	1	31	1	0	1	4	0	0
11:00 AM	1	19	1	0	2	5	3	0	1	20	2	0	7	4	0	0
11:15 AM	2	22	1	0	1	2	1	0	0	21	3	0	1	4	1	0
11:30 AM	1	20	3	0	1	6	1	0	1	29	5	0	1	3	0	0
11:45 AM	2	15	0	0	1	7	1	0	2	27	10	0	2	4	0	0
12:00 PM	3	27	2	0	0	7	2	0	3	38	6	0	1	5	0	0
12:15 PM	2	19	2	0	0	4	3	0	5	34	4	0	7	5	4	0
12:30 PM	1	23	0	0	2	7	3	0	3	27	1	0	1	3	0	0
12:45 PM	0	19	1	0	0	5	2	0	2	39	4	0	2	6	0	0
1:00 PM	1	19	2	0	0	6	4	0	0	26	3	0	4	3	1	0
1:15 PM	0	23	0	0	1	2	1	0	3	24	3	0	3	5	2	0
1:30 PM	0	20	0	0	1	1	1	0	1	27	5	0	2	10	1	0
1:45 PM	2	18	1	0	0	13	2	0	2	31	2	0	2	4	0	0
2:00 PM	2	22	1	0	2	6	1	0	2	27	6	0	4	5	0	0
2:15 PM	4	20	0	0	2	14	1	0	3	31	4	0	7	5	2	0
2:30 PM	0	34	0	0	1	6	0	0	4	26	7	0	6	6	1	0
2:45 PM	1	23	2	0	0	3	2	0	6	38	4	0	6	7	0	0
3:00 PM	2	18	2	0	1	11	3	0	1	21	3	0	1	8	0	0
3:15 PM	0	15	0	0	2	9	1	0	2	20	3	0	6	10	0	0
3:30 PM	3	26	0	0	0	8	4	0	2	27	6	0	3	9	2	0
3:45 PM	7	26	0	0	1	5	3	0	2	36	5	0	6	4	2	0
4:00 PM	2	27	2	0	0	5	1	0	3	38	3	0	5	5	0	0
4:15 PM	2	27	0	0	1	9	1	0	2	30	9	0	2	7	2	0
4:30 PM	1	33	0	0	1	3	4	0	4	29	5	0	3	3	1	0
4:45 PM	4	34	1	0	3	8	5	0	4	42	8	0	4	12	4	0
5:00 PM	3	39	0	0	0	9	5	0	3	41	4	0	5	7	1	0
5:15 PM	3	33	0	0	2	8	3	0	3	42	5	0	8	10	1	0
5:30 PM	2	21	1	0	2	8	1	0	3	50	7	0	2	4	2	0
5:45 PM	3	26	1	0	0	12	0	0	2	35	3	0	7	8	3	0
6:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0

Study Name **Location 30 Front St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Hewitt Ave Westbound				Front St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:15 PM	0	0	0	0	0	2	0	0	1	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 30 Front St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Hewitt Ave Westbound				Front St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 30 Front St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Hewitt Ave Crossing East Leg	Front St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	1
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	1	0	0	11
7:00 AM	0	0	2	0
7:15 AM	2	0	4	2
7:30 AM	0	0	3	0
7:45 AM	2	0	0	0
8:00 AM	0	1	0	0
8:15 AM	0	1	1	2
8:30 AM	0	0	3	1
8:45 AM	0	0	1	1
9:00 AM	0	0	0	0
9:15 AM	0	0	0	3
9:30 AM	0	0	0	1
9:45 AM	0	0	0	2
10:00 AM	0	2	1	0
10:15 AM	0	2	0	0
10:30 AM	0	2	0	0
10:45 AM	0	4	0	1
11:00 AM	0	0	0	3
11:15 AM	0	1	0	4
11:30 AM	0	0	7	0
11:45 AM	1	0	10	0
12:00 PM	4	1	1	2
12:15 PM	1	1	3	0
12:30 PM	0	0	0	0
12:45 PM	1	0	0	0
1:00 PM	0	2	2	1
1:15 PM	1	0	1	1
1:30 PM	0	0	2	0
1:45 PM	1	0	0	0
2:00 PM	1	0	0	1
2:15 PM	2	1	0	1
2:30 PM	0	1	0	2
2:45 PM	0	0	4	4
3:00 PM	8	0	3	10
3:15 PM	4	1	0	2
3:30 PM	1	0	0	2
3:45 PM	1	0	0	2
4:00 PM	1	1	2	0
4:15 PM	1	1	0	1
4:30 PM	2	1	0	0
4:45 PM	0	2	1	2
5:00 PM	0	0	0	6
5:15 PM	1	2	1	1
5:30 PM	0	1	1	0
5:45 PM	1	1	3	3
6:00 PM	0	0	0	0

Study Name **Location 30 Front St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Hewitt Ave Crossing East Leg	Front St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	1
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	1	0	0	0
8:30 AM	1	0	3	0
8:45 AM	0	0	3	0
9:00 AM	0	0	2	0
9:15 AM	0	0	2	1
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	1
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	1	2	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	1
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	1
2:00 PM	0	0	0	0
2:15 PM	0	0	1	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	1
3:00 PM	0	0	6	0
3:15 PM	0	0	0	0
3:30 PM	2	1	0	0
3:45 PM	0	0	2	0
4:00 PM	3	1	0	3
4:15 PM	0	0	0	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	0
5:15 PM	3	1	0	1
5:30 PM	0	2	0	0
5:45 PM	1	1	0	1
6:00 PM	0	0	0	0

Study Name **Location 30 Front St & Hewitt Ave**
Date **10/02/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Hewitt Ave Westbound				Front St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	0	0	1	0	0	0	0	5	1	0	0	1	0	0
6:15 AM	0	5	0	0	0	1	1	0	1	9	0	0	0	0	0	0
6:30 AM	1	2	0	0	0	1	2	0	0	18	0	0	0	0	0	0
6:45 AM	1	15	0	0	0	2	0	0	0	21	4	0	0	0	0	0
7:00 AM	0	8	0	0	3	3	0	0	2	18	4	0	0	1	0	0
7:15 AM	2	14	0	0	0	4	1	0	3	15	7	0	4	1	4	0
7:30 AM	5	19	0	0	2	6	1	0	2	22	3	0	3	4	1	0
7:45 AM	1	23	0	0	1	9	3	0	1	37	1	1	0	1	2	0
8:00 AM	1	11	1	0	3	2	2	0	1	14	4	1	1	1	1	0
8:15 AM	0	13	0	0	2	3	1	0	3	10	1	1	2	1	0	0
8:30 AM	1	19	2	0	1	5	0	0	1	23	4	0	1	4	1	0
8:45 AM	3	19	0	0	2	9	5	0	1	32	4	0	2	8	1	0
9:00 AM	0	14	0	0	0	8	1	0	1	28	2	0	3	2	0	0
9:15 AM	1	16	0	0	0	2	1	0	0	20	6	0	3	7	0	0
9:30 AM	0	17	1	0	2	8	0	0	3	25	5	0	2	3	1	0
9:45 AM	1	15	0	0	1	5	3	0	1	35	3	0	1	2	1	0
10:00 AM	1	16	0	0	1	3	3	0	5	28	1	0	3	3	1	0
10:15 AM	1	11	1	0	0	4	1	0	1	15	1	0	2	1	0	0
10:30 AM	1	15	1	0	2	6	1	0	0	21	4	0	2	8	0	0
10:45 AM	2	16	3	0	2	6	1	0	1	31	1	0	1	4	0	0
11:00 AM	1	19	1	0	2	6	3	0	1	21	2	0	7	4	0	0
11:15 AM	2	22	1	0	2	2	1	0	0	21	4	0	1	4	1	0
11:30 AM	1	20	3	0	1	6	1	0	1	29	5	0	2	3	0	0
11:45 AM	2	15	0	0	1	7	1	0	2	27	10	0	2	4	0	0
12:00 PM	3	27	2	0	1	7	2	0	3	38	6	0	1	5	0	0
12:15 PM	2	19	2	0	0	4	3	0	5	35	4	0	7	5	4	0
12:30 PM	1	23	0	0	2	7	3	0	3	27	1	0	1	3	0	0
12:45 PM	2	19	1	0	0	6	2	0	2	40	4	0	2	6	0	0
1:00 PM	1	19	2	0	0	6	4	0	0	26	3	0	4	3	1	0
1:15 PM	0	23	0	0	1	2	1	0	3	24	3	0	3	5	2	0
1:30 PM	0	20	0	0	1	2	1	0	1	27	5	0	2	10	1	0
1:45 PM	2	18	1	0	0	13	2	0	2	33	2	0	3	4	1	0
2:00 PM	2	22	1	0	2	6	1	0	2	27	6	0	4	5	0	0
2:15 PM	4	20	0	0	2	15	1	0	3	31	5	0	7	5	2	0
2:30 PM	0	35	0	0	1	7	0	0	4	29	9	0	7	6	1	0
2:45 PM	1	23	2	0	0	4	2	0	6	38	4	0	6	7	0	0
3:00 PM	2	18	2	0	1	12	3	0	1	21	3	0	2	8	0	0
3:15 PM	0	15	0	0	2	11	1	0	3	21	3	0	6	10	0	0
3:30 PM	3	26	0	0	0	8	4	0	2	28	6	0	3	9	2	0
3:45 PM	7	27	0	0	1	5	3	0	2	37	7	0	6	4	2	0
4:00 PM	2	28	2	0	0	5	1	0	4	38	3	0	6	5	0	0
4:15 PM	2	28	0	0	1	9	1	0	2	31	9	0	2	7	2	0
4:30 PM	1	33	0	0	1	3	4	0	4	29	5	0	3	3	1	0
4:45 PM	4	34	1	0	3	8	5	0	4	42	8	0	4	12	4	0
5:00 PM	3	40	0	0	0	9	5	0	3	41	4	0	5	7	1	0
5:15 PM	3	33	0	0	2	8	3	0	3	42	5	0	8	10	1	0
5:30 PM	2	21	1	0	2	8	1	0	3	51	7	0	2	4	2	0
5:45 PM	3	26	1	0	0	12	0	0	2	35	3	0	7	8	3	0
6:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0

Study Name **Location 31 3rd St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Hewitt Ave Westbound				3rd St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	9	0	0	1	1	0	0	0	13	0	0	1	0	1	0
6:15 AM	1	14	0	0	0	0	0	0	0	28	0	0	0	0	0	0
6:30 AM	0	20	0	0	4	2	0	0	1	30	0	0	1	1	2	0
6:45 AM	2	18	2	0	6	3	1	0	1	29	1	0	0	0	0	0
7:00 AM	2	22	4	0	8	4	2	0	4	29	1	0	0	4	1	0
7:15 AM	1	49	2	0	4	2	2	0	3	47	0	0	1	6	1	0
7:30 AM	5	32	2	0	1	4	2	0	4	56	1	0	0	1	0	0
7:45 AM	1	42	2	0	7	5	1	0	2	51	0	0	7	5	2	0
8:00 AM	1	39	0	0	5	4	2	0	2	42	0	0	1	2	0	0
8:15 AM	0	25	3	0	3	1	0	0	4	25	1	0	6	3	0	0
8:30 AM	1	41	4	0	3	4	0	0	0	53	1	0	1	3	1	0
8:45 AM	5	48	0	0	3	14	2	0	3	57	1	0	4	2	4	0
9:00 AM	2	31	0	0	2	2	1	0	1	47	1	0	2	4	2	0
9:15 AM	0	39	5	0	2	4	1	0	4	37	1	0	3	2	0	0
9:30 AM	3	38	1	0	4	10	0	0	2	48	3	0	4	2	1	0
9:45 AM	2	48	0	0	1	6	1	0	2	35	3	0	4	2	5	0
10:00 AM	3	55	3	0	3	3	2	0	3	41	1	0	5	2	3	0
10:15 AM	2	41	2	0	2	5	0	0	4	46	1	0	1	1	1	0
10:30 AM	3	42	0	0	0	5	2	0	3	56	3	0	2	2	2	0
10:45 AM	2	55	2	0	3	4	1	0	2	54	1	0	6	6	3	0
11:00 AM	1	66	2	0	3	3	1	0	1	51	1	0	0	3	2	0
11:15 AM	2	49	1	0	6	3	3	0	2	40	1	0	4	4	0	0
11:30 AM	5	61	4	0	9	2	4	0	4	69	2	0	4	2	6	0
11:45 AM	3	64	4	0	8	5	4	0	1	74	5	0	2	6	5	0
12:00 PM	1	80	4	0	4	2	3	0	7	77	4	0	3	2	5	0
12:15 PM	2	56	1	0	4	3	3	0	4	68	4	0	1	5	3	0
12:30 PM	5	62	6	0	4	4	2	0	3	70	2	0	2	5	1	0
12:45 PM	3	86	2	0	6	7	3	0	2	57	5	0	4	4	3	0
1:00 PM	5	80	4	0	3	8	3	0	3	83	6	0	4	5	1	0
1:15 PM	2	88	6	0	2	1	5	0	0	52	3	0	2	6	2	0
1:30 PM	2	64	4	0	7	6	3	0	2	66	1	0	7	6	3	0
1:45 PM	2	85	3	0	6	8	2	0	4	74	1	0	5	5	6	0
2:00 PM	2	71	6	0	4	3	2	0	6	53	4	0	2	2	3	0
2:15 PM	2	74	6	0	7	11	6	0	1	75	1	0	2	7	2	0
2:30 PM	6	80	7	0	8	5	2	0	5	65	2	0	4	7	6	0
2:45 PM	4	68	1	0	4	5	4	0	4	81	5	0	6	3	3	0
3:00 PM	2	93	3	0	3	5	3	0	4	75	3	0	3	7	2	0
3:15 PM	3	71	3	0	3	5	1	0	1	77	4	0	3	6	1	0
3:30 PM	7	86	2	0	2	8	1	0	1	75	3	0	3	2	5	0
3:45 PM	1	91	2	0	5	6	0	0	3	76	1	0	9	6	4	0
4:00 PM	7	87	3	0	4	6	4	0	1	65	2	0	4	5	3	0
4:15 PM	3	80	3	0	6	6	1	0	3	80	3	0	2	7	4	0
4:30 PM	7	87	3	0	7	6	4	0	4	68	1	0	4	11	4	0
4:45 PM	4	87	6	0	3	10	3	0	4	91	2	0	5	11	5	0
5:00 PM	1	93	8	0	4	8	4	0	9	79	3	0	3	14	3	0
5:15 PM	3	96	6	0	3	5	2	0	7	70	4	0	8	6	1	0
5:30 PM	5	70	9	0	11	7	5	0	10	79	2	0	7	10	5	0
5:45 PM	6	76	8	0	5	15	4	0	5	75	2	0	4	9	4	0

Study Name **Location 31 3rd St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Hewitt Ave Westbound				3rd St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
7:00 AM	0	2	0	0	1	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	3	1	0	0	0	0	0	1	4	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:45 AM	0	3	1	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0
10:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:45 AM	0	6	0	0	0	0	0	0	0	3	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	1	3	0	0	0	1	0	0
12:45 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
1:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2:45 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	3	0	0	0	2	1	0	0	1	0	0	0	0	0	0
4:15 PM	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 31 3rd St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Hewitt Ave Westbound				3rd St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 31 3rd St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Hewitt Ave Crossing East Leg	3rd St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	1	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	1	1
7:15 AM	0	0	0	0
7:30 AM	0	2	4	2
7:45 AM	0	0	0	0
8:00 AM	0	1	0	0
8:15 AM	0	2	0	1
8:30 AM	1	2	9	3
8:45 AM	2	2	5	0
9:00 AM	0	1	0	2
9:15 AM	0	1	0	2
9:30 AM	0	0	0	1
9:45 AM	0	2	0	3
10:00 AM	0	1	1	4
10:15 AM	1	4	0	3
10:30 AM	4	2	3	1
10:45 AM	0	3	0	2
11:00 AM	0	4	0	4
11:15 AM	1	1	4	1
11:30 AM	0	3	0	2
11:45 AM	0	2	1	1
12:00 PM	0	3	0	1
12:15 PM	0	1	0	4
12:30 PM	0	5	0	0
12:45 PM	1	1	1	4
1:00 PM	2	2	2	2
1:15 PM	0	5	2	5
1:30 PM	0	5	0	4
1:45 PM	1	5	0	1
2:00 PM	5	6	3	6
2:15 PM	0	4	2	5
2:30 PM	0	1	4	10
2:45 PM	2	6	1	10
3:00 PM	2	6	3	3
3:15 PM	0	0	0	2
3:30 PM	2	4	4	2
3:45 PM	0	7	6	6
4:00 PM	0	5	1	2
4:15 PM	0	9	0	2
4:30 PM	0	4	0	3
4:45 PM	1	8	2	2
5:00 PM	0	6	1	5
5:15 PM	1	9	4	4
5:30 PM	0	3	2	2
5:45 PM	0	1	0	7

Study Name **Location 31 3rd St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Hewitt Ave Crossing East Leg	3rd St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	1	0	0
7:00 AM	0	1	0	1
7:15 AM	0	0	0	0
7:30 AM	0	1	0	0
7:45 AM	1	0	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	1
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	1	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	1	0	0
11:45 AM	1	2	0	0
12:00 PM	1	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	2	0	1
12:45 PM	0	0	0	0
1:00 PM	0	0	0	2
1:15 PM	0	1	0	0
1:30 PM	0	0	0	0
1:45 PM	0	1	0	0
2:00 PM	0	0	0	1
2:15 PM	1	0	0	1
2:30 PM	0	1	0	0
2:45 PM	0	0	0	0
3:00 PM	1	2	0	1
3:15 PM	0	4	0	0
3:30 PM	0	3	0	1
3:45 PM	0	0	6	1
4:00 PM	0	0	0	2
4:15 PM	0	0	0	2
4:30 PM	0	1	0	2
4:45 PM	0	2	0	1
5:00 PM	0	0	0	1
5:15 PM	0	3	1	0
5:30 PM	0	0	0	0
5:45 PM	0	2	0	0

Study Name **Location 31 3rd St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Hewitt Ave Westbound				3rd St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	9	0	0	1	1	0	0	0	13	0	0	1	0	1	0
6:15 AM	1	14	0	0	0	0	0	0	0	29	0	0	0	0	0	0
6:30 AM	1	21	0	0	4	2	0	0	1	30	0	0	2	1	2	0
6:45 AM	2	18	2	0	6	3	1	0	2	30	1	0	0	0	0	0
7:00 AM	2	25	4	0	9	4	2	0	4	30	1	0	0	4	1	0
7:15 AM	1	54	2	0	4	2	2	0	3	48	0	0	1	7	1	0
7:30 AM	5	35	3	0	1	4	2	0	5	60	1	0	0	1	0	0
7:45 AM	1	43	2	0	8	5	1	0	2	53	0	0	7	5	2	0
8:00 AM	1	41	0	0	5	4	2	0	2	43	0	0	1	2	0	0
8:15 AM	0	29	3	0	3	1	0	0	4	25	1	0	6	3	0	0
8:30 AM	1	42	4	0	3	4	0	0	0	56	1	0	1	3	1	0
8:45 AM	5	51	1	0	3	15	2	0	3	57	1	0	4	2	4	0
9:00 AM	2	31	0	0	2	2	1	0	1	50	1	0	2	4	2	0
9:15 AM	0	42	5	0	2	4	1	0	4	38	1	0	3	2	0	0
9:30 AM	3	38	1	0	4	10	0	0	3	49	3	0	4	2	1	0
9:45 AM	2	49	0	0	1	7	1	0	2	37	3	0	4	2	5	0
10:00 AM	3	57	3	0	3	3	2	0	3	42	1	0	5	2	3	0
10:15 AM	2	42	2	0	2	5	0	0	4	47	1	0	1	1	1	0
10:30 AM	3	46	0	0	0	6	2	0	3	58	3	0	2	2	2	0
10:45 AM	2	61	2	0	3	4	1	0	2	57	1	0	6	6	3	0
11:00 AM	1	66	2	0	3	3	1	0	1	53	1	0	0	3	3	0
11:15 AM	2	51	1	0	6	3	3	0	2	40	1	0	4	4	0	0
11:30 AM	5	62	4	0	9	2	4	0	4	69	2	0	4	2	6	0
11:45 AM	3	67	4	0	8	5	4	0	1	74	5	0	2	6	5	0
12:00 PM	1	83	4	0	4	2	3	0	7	78	4	0	3	2	5	0
12:15 PM	2	57	1	0	4	4	3	0	4	69	4	0	1	5	3	0
12:30 PM	5	63	6	0	4	4	2	0	4	73	2	0	2	6	1	0
12:45 PM	3	88	2	0	6	7	3	0	2	59	5	0	4	4	3	0
1:00 PM	5	80	4	0	3	8	3	0	3	85	6	0	4	5	2	0
1:15 PM	2	91	6	0	2	1	5	0	0	52	3	0	2	6	3	0
1:30 PM	2	66	4	0	7	6	3	0	2	66	1	0	7	6	3	0
1:45 PM	2	87	4	0	6	8	2	0	4	75	1	0	5	5	6	0
2:00 PM	2	72	6	0	4	3	2	0	6	54	4	0	2	2	3	0
2:15 PM	2	74	6	0	8	11	6	0	1	76	1	0	2	7	2	0
2:30 PM	6	81	7	0	8	6	2	0	6	65	2	0	4	8	6	0
2:45 PM	4	71	1	0	4	5	4	0	4	84	5	0	6	3	3	0
3:00 PM	2	95	3	0	3	5	3	0	4	76	3	0	3	7	2	0
3:15 PM	3	73	3	0	3	5	1	0	1	78	4	0	3	6	1	0
3:30 PM	7	86	2	0	2	8	1	0	1	76	3	0	3	2	5	0
3:45 PM	1	94	2	0	5	6	0	0	3	77	1	0	9	6	4	0
4:00 PM	7	90	3	0	4	8	5	0	1	66	2	0	4	5	3	0
4:15 PM	3	83	3	0	7	6	2	0	3	80	3	0	2	7	4	0
4:30 PM	7	87	3	0	7	6	4	0	4	68	1	0	4	11	4	0
4:45 PM	4	89	6	0	3	10	3	0	4	93	2	0	5	11	5	0
5:00 PM	1	93	8	0	4	9	4	0	9	79	3	0	3	14	3	0
5:15 PM	3	99	6	0	3	5	2	0	7	70	4	0	8	6	1	0
5:30 PM	5	71	9	0	11	7	5	0	10	80	2	0	7	10	5	0
5:45 PM	6	77	8	0	5	15	4	0	5	75	2	0	4	9	4	0

Study Name **Location 32 4th St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Hewitt Ave Westbound				4th St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	10	0	0	0	0	0	0	0	17	1	0	1	1	2	0
6:15 AM	0	7	0	0	0	1	0	0	0	19	1	0	0	0	0	0
6:30 AM	1	14	1	0	0	0	2	0	0	32	0	0	1	2	1	0
6:45 AM	1	19	1	0	0	4	0	0	0	67	0	0	1	0	0	0
7:00 AM	3	25	4	0	2	3	1	0	1	46	1	0	0	0	1	0
7:15 AM	2	48	2	0	2	4	0	0	3	39	0	0	2	3	1	0
7:30 AM	1	39	1	0	4	4	1	0	0	54	2	0	1	1	1	0
7:45 AM	1	59	6	0	3	3	1	0	3	85	2	0	1	3	2	0
8:00 AM	2	30	1	0	2	3	3	0	0	37	0	0	1	2	0	0
8:15 AM	2	26	1	0	1	0	0	0	3	30	3	0	0	5	1	0
8:30 AM	3	34	2	0	3	5	1	0	0	58	0	0	0	4	4	0
8:45 AM	6	48	1	0	7	9	2	0	2	65	0	0	1	3	1	0
9:00 AM	2	37	1	0	3	4	0	0	3	36	0	0	0	5	6	0
9:15 AM	1	34	3	0	1	2	2	0	1	23	1	0	1	3	3	0
9:30 AM	2	30	9	0	3	7	1	0	1	58	2	0	2	1	4	0
9:45 AM	1	55	5	0	8	7	1	0	2	61	0	0	2	7	4	0
10:00 AM	1	38	2	0	3	5	0	0	1	27	1	0	0	6	1	0
10:15 AM	3	35	1	0	3	3	1	0	2	25	2	0	0	1	0	0
10:30 AM	2	35	3	0	5	6	1	0	2	37	1	0	1	1	2	0
10:45 AM	4	55	2	0	5	3	3	0	6	44	3	0	2	6	3	0
11:00 AM	1	34	0	0	4	2	0	0	0	36	0	0	0	4	1	0
11:15 AM	2	45	4	0	1	2	2	0	1	37	1	0	2	3	2	0
11:30 AM	0	57	4	0	5	3	1	0	3	64	1	0	1	5	1	0
11:45 AM	2	78	6	0	4	6	1	0	3	51	0	0	1	9	1	0
12:00 PM	2	72	3	0	2	1	2	0	4	55	0	0	2	3	1	0
12:15 PM	2	57	6	0	4	6	2	0	2	45	1	0	1	1	1	0
12:30 PM	2	45	7	0	4	4	1	0	2	67	0	0	3	6	0	0
12:45 PM	3	77	5	0	9	7	2	0	3	65	1	0	2	6	2	0
1:00 PM	2	88	3	0	9	1	4	0	5	41	1	0	1	1	1	0
1:15 PM	1	59	5	0	3	2	3	0	3	52	0	0	0	4	0	0
1:30 PM	5	57	3	0	3	4	4	0	5	62	0	0	1	7	1	0
1:45 PM	2	72	3	0	7	3	3	0	2	60	2	0	0	10	0	0
2:00 PM	2	70	4	0	1	1	7	0	1	44	0	0	3	5	1	0
2:15 PM	4	86	7	0	7	6	2	0	4	47	0	0	1	3	4	0
2:30 PM	5	86	8	0	3	8	3	0	5	80	1	0	1	3	3	0
2:45 PM	4	73	5	0	7	5	1	0	4	69	0	0	3	6	5	0
3:00 PM	1	74	6	0	6	3	2	0	3	58	0	0	1	7	2	0
3:15 PM	6	68	5	0	2	7	5	0	4	37	1	0	3	6	2	0
3:30 PM	3	97	4	0	4	10	3	0	3	48	1	0	3	1	2	0
3:45 PM	5	104	6	0	3	6	2	0	2	68	1	0	8	13	6	0
4:00 PM	2	97	4	0	3	10	4	0	4	62	1	0	2	6	5	0
4:15 PM	3	69	5	0	3	8	3	0	3	54	0	0	0	3	2	0
4:30 PM	4	78	8	0	5	4	1	0	4	56	2	0	2	7	1	0
4:45 PM	6	88	13	0	7	7	4	0	4	63	0	0	1	5	2	0
5:00 PM	7	108	11	0	4	6	3	0	6	81	2	0	2	7	1	0
5:15 PM	3	82	5	0	3	6	3	1	7	56	1	0	0	5	7	0
5:30 PM	7	83	4	0	6	6	2	0	9	41	1	0	3	6	6	0
5:45 PM	4	69	8	0	10	6	4	0	4	44	2	0	2	8	1	0

Study Name **Location 32 4th St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Hewitt Ave Westbound				4th St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	0	1	0	1	0	0	0	0	2	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 32 4th St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Hewitt Ave Westbound				4th St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
9:00 AM	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	4	1	0	0	1	0	0	0	0	1	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 32 4th St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Crossing North Leg	Hewitt Ave Crossing East Leg	4th St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	1
7:00 AM	0	0	0	0
7:15 AM	0	0	0	1
7:30 AM	0	1	3	0
7:45 AM	0	1	0	0
8:00 AM	0	0	1	0
8:15 AM	0	0	1	1
8:30 AM	0	0	0	3
8:45 AM	1	0	0	3
9:00 AM	0	1	0	2
9:15 AM	0	0	0	2
9:30 AM	0	3	0	1
9:45 AM	0	0	0	1
10:00 AM	1	0	0	1
10:15 AM	0	0	0	0
10:30 AM	0	1	0	2
10:45 AM	0	0	0	2
11:00 AM	0	0	0	0
11:15 AM	0	1	0	3
11:30 AM	0	0	1	4
11:45 AM	2	0	0	1
12:00 PM	0	1	1	1
12:15 PM	0	0	0	1
12:30 PM	1	1	0	6
12:45 PM	0	3	1	2
1:00 PM	2	1	0	2
1:15 PM	2	0	0	0
1:30 PM	0	2	0	3
1:45 PM	1	2	0	2
2:00 PM	0	1	0	0
2:15 PM	0	0	0	0
2:30 PM	2	2	1	6
2:45 PM	5	3	0	0
3:00 PM	1	0	1	1
3:15 PM	0	4	0	0
3:30 PM	0	0	1	1
3:45 PM	0	2	0	3
4:00 PM	0	1	0	1
4:15 PM	2	4	0	1
4:30 PM	0	1	0	1
4:45 PM	0	0	0	2
5:00 PM	2	2	1	1
5:15 PM	0	2	0	2
5:30 PM	1	4	0	1
5:45 PM	2	4	0	3

Study Name **Location 32 4th St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Crossing North Leg	Hewitt Ave Crossing East Leg	4th St Crossing South Leg	Hewitt Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	1
8:15 AM	0	0	0	0
8:30 AM	0	1	0	1
8:45 AM	2	1	0	3
9:00 AM	0	0	0	2
9:15 AM	0	0	0	0
9:30 AM	0	0	0	1
9:45 AM	0	0	0	1
10:00 AM	0	0	0	0
10:15 AM	0	1	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	2
11:15 AM	0	0	0	2
11:30 AM	0	0	0	1
11:45 AM	0	0	0	1
12:00 PM	0	0	0	3
12:15 PM	0	0	0	0
12:30 PM	0	0	0	3
12:45 PM	0	0	0	0
1:00 PM	0	2	0	0
1:15 PM	0	2	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	4
2:00 PM	0	2	0	1
2:15 PM	0	0	0	1
2:30 PM	0	0	0	0
2:45 PM	0	1	0	2
3:00 PM	0	0	0	0
3:15 PM	1	0	1	1
3:30 PM	0	1	1	3
3:45 PM	0	0	0	4
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	2	0	0	2
4:45 PM	0	2	0	3
5:00 PM	2	0	0	6
5:15 PM	0	0	0	2
5:30 PM	0	1	0	0
5:45 PM	0	0	0	2

Study Name **Location 32 4th St & Hewitt Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Hewitt Ave Westbound				4th St Northbound				Hewitt Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	11	0	0	0	0	0	0	0	17	1	0	1	1	2	0
6:15 AM	0	8	0	0	0	1	0	0	0	19	1	0	0	0	0	0
6:30 AM	1	16	2	0	0	0	3	0	0	32	0	0	1	2	1	0
6:45 AM	1	20	1	0	0	4	0	0	0	70	1	0	1	0	0	0
7:00 AM	3	26	4	0	2	3	1	0	1	46	1	0	0	0	2	0
7:15 AM	2	48	3	0	2	4	0	0	3	39	0	0	2	3	1	0
7:30 AM	1	41	1	0	4	4	1	0	0	54	2	0	1	1	1	0
7:45 AM	1	59	6	0	3	3	1	0	3	86	2	0	1	3	2	0
8:00 AM	2	31	1	0	2	3	3	0	0	38	0	0	1	2	0	0
8:15 AM	2	26	1	0	1	0	0	0	3	32	3	0	0	5	1	0
8:30 AM	3	34	2	0	3	5	1	0	0	58	0	0	0	4	4	0
8:45 AM	6	48	1	0	7	10	2	0	2	65	0	0	1	3	2	0
9:00 AM	4	38	1	0	3	4	0	0	3	37	0	0	0	5	6	0
9:15 AM	1	35	3	0	1	2	2	0	1	23	1	0	1	3	3	0
9:30 AM	2	32	9	0	3	7	1	0	1	58	2	0	2	1	4	0
9:45 AM	1	55	5	0	8	8	1	0	2	61	0	0	2	7	4	0
10:00 AM	1	39	2	0	3	5	0	0	1	29	1	0	0	6	1	0
10:15 AM	4	38	1	0	3	3	1	0	2	26	2	0	0	1	0	0
10:30 AM	2	35	3	0	5	6	1	0	2	37	1	0	1	1	2	0
10:45 AM	4	56	2	0	6	3	3	0	6	45	3	0	2	6	3	0
11:00 AM	1	34	0	0	4	2	0	0	0	36	0	0	0	4	1	0
11:15 AM	2	47	4	0	1	2	2	0	1	38	1	0	2	3	2	0
11:30 AM	0	58	4	0	5	3	1	0	3	64	1	0	1	5	1	0
11:45 AM	2	79	6	0	4	6	1	0	3	51	0	0	1	9	1	0
12:00 PM	2	72	3	0	2	1	2	0	4	57	0	0	2	3	1	0
12:15 PM	2	58	7	0	5	6	2	0	2	47	1	0	1	1	1	0
12:30 PM	2	46	7	0	4	4	1	0	2	68	0	0	3	7	0	0
12:45 PM	3	77	5	0	9	7	2	0	3	65	1	0	2	6	2	0
1:00 PM	2	93	3	0	9	1	4	0	5	41	1	0	1	2	1	0
1:15 PM	1	60	5	0	3	2	3	0	3	55	0	0	0	4	0	0
1:30 PM	5	58	3	0	3	4	4	0	5	64	0	0	1	7	1	0
1:45 PM	2	72	3	0	7	3	3	0	2	60	2	0	0	10	0	0
2:00 PM	2	70	4	0	1	1	7	0	1	44	0	0	3	5	1	0
2:15 PM	4	86	7	0	7	6	2	0	4	48	0	0	1	3	4	0
2:30 PM	5	90	9	0	3	9	3	0	5	80	2	0	1	3	3	0
2:45 PM	4	74	5	0	7	5	1	0	4	72	0	0	3	6	5	0
3:00 PM	1	74	6	0	6	3	2	0	3	60	0	0	1	7	2	0
3:15 PM	6	69	5	0	2	7	5	0	4	39	1	0	4	6	2	0
3:30 PM	3	98	4	0	4	10	3	0	3	48	1	0	3	1	2	0
3:45 PM	5	104	6	0	3	6	2	0	2	70	1	0	8	13	6	0
4:00 PM	3	98	4	0	3	11	4	0	4	62	1	0	2	6	5	0
4:15 PM	3	69	5	0	4	8	3	0	3	56	0	0	0	3	2	0
4:30 PM	4	78	8	0	5	4	1	0	4	57	2	0	2	7	1	0
4:45 PM	6	89	13	0	7	7	4	0	4	63	0	0	1	5	2	0
5:00 PM	7	108	11	0	4	6	4	0	6	81	2	0	2	7	1	0
5:15 PM	3	82	5	0	3	6	3	1	7	56	1	0	0	5	7	0
5:30 PM	7	83	4	0	6	6	2	0	9	41	1	0	3	6	6	0
5:45 PM	4	69	9	0	10	6	4	0	4	44	2	0	2	8	1	0

Study Name **Location 33 Front St & Arch St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Arch St Westbound				Front St Northbound				Arch St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	7	0	0	0	0	0	0	1	6	0	0	0	0	0	0
6:15 AM	0	6	0	0	0	3	2	0	1	10	1	0	0	0	0	0
6:30 AM	0	5	0	0	0	3	2	0	0	16	2	0	0	0	1	0
6:45 AM	0	15	0	0	0	3	4	0	2	24	0	0	0	1	0	0
7:00 AM	0	12	0	0	1	4	3	0	1	39	1	0	0	1	0	0
7:15 AM	0	29	0	0	1	7	7	0	1	21	2	0	5	2	0	0
7:30 AM	1	23	1	0	1	1	7	0	2	19	4	0	2	0	0	0
7:45 AM	0	29	0	0	1	4	11	0	1	30	2	0	1	5	0	0
8:00 AM	0	23	0	0	0	2	6	0	1	30	3	0	2	2	0	0
8:15 AM	2	14	1	0	0	3	6	0	3	28	2	0	1	0	0	0
8:30 AM	0	23	0	0	1	5	4	0	3	36	2	0	0	1	1	0
8:45 AM	0	29	0	0	2	6	8	0	2	28	0	0	3	2	2	0
9:00 AM	0	18	1	0	0	2	7	0	0	25	2	0	0	1	0	0
9:15 AM	0	20	0	0	0	3	4	0	1	21	2	0	1	3	1	0
9:30 AM	1	15	0	0	0	7	6	0	2	24	3	0	2	2	1	0
9:45 AM	0	22	1	0	0	2	8	0	5	30	2	0	4	2	2	0
10:00 AM	0	22	0	0	0	2	8	0	0	25	4	0	0	4	1	0
10:15 AM	0	20	0	0	0	4	4	0	1	21	1	0	1	2	2	0
10:30 AM	1	20	0	0	0	10	5	0	2	19	3	0	2	2	0	0
10:45 AM	0	25	0	0	1	3	5	0	0	25	5	0	2	5	1	0
11:00 AM	2	19	1	0	0	4	9	0	2	24	3	0	2	3	2	0
11:15 AM	2	19	0	0	0	4	8	0	1	27	6	0	3	8	2	0
11:30 AM	0	26	0	0	0	5	4	0	3	31	1	0	0	3	3	0
11:45 AM	2	25	2	0	0	6	6	0	2	29	9	0	2	5	3	0
12:00 PM	0	26	1	0	0	2	11	0	2	37	5	0	4	11	1	0
12:15 PM	0	26	0	0	2	1	17	0	2	29	2	0	4	6	2	0
12:30 PM	1	33	0	0	0	7	7	0	3	29	3	0	2	2	0	0
12:45 PM	2	30	1	0	3	6	12	0	4	39	7	0	2	6	3	0
1:00 PM	2	26	1	0	0	7	8	0	2	31	5	0	3	5	0	0
1:15 PM	1	39	2	0	0	7	7	0	5	32	5	0	3	5	2	0
1:30 PM	2	27	1	0	1	3	13	0	3	24	5	0	2	5	3	0
1:45 PM	0	29	1	0	0	8	8	0	2	38	4	0	3	7	1	0
2:00 PM	1	23	1	0	0	7	6	0	0	28	4	0	2	7	0	0
2:15 PM	0	32	2	0	1	2	8	0	3	34	5	0	2	1	3	0
2:30 PM	1	24	3	0	0	6	7	0	2	32	4	0	4	9	2	0
2:45 PM	1	31	1	0	1	4	5	0	6	33	11	0	2	9	1	0
3:00 PM	2	29	0	0	0	4	7	0	1	30	3	0	2	7	2	0
3:15 PM	0	25	0	0	0	7	8	0	3	31	9	0	0	7	1	0
3:30 PM	0	34	0	0	0	5	6	0	3	31	3	0	3	6	2	0
3:45 PM	0	31	0	0	0	5	6	0	6	38	3	0	5	6	4	0
4:00 PM	1	28	1	0	1	5	8	0	4	41	4	0	0	3	0	0
4:15 PM	0	43	1	0	0	5	12	0	6	34	6	0	2	7	2	0
4:30 PM	2	35	0	0	1	2	17	0	2	55	5	0	3	13	2	0
4:45 PM	0	32	2	0	0	5	16	0	4	56	2	0	2	8	0	0
5:00 PM	1	48	3	0	0	8	11	0	0	50	7	0	4	7	1	0
5:15 PM	0	49	1	0	0	3	9	0	4	56	5	0	5	0	2	0
5:30 PM	3	40	1	0	2	6	3	0	1	45	4	0	4	5	2	0
5:45 PM	2	38	1	0	2	7	7	0	5	44	2	0	3	7	1	0

Study Name **Location 33 Front St & Arch St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Arch St Westbound				Front St Northbound				Arch St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
9:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	4	1	0	0	1	0	0
11:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 33 Front St & Arch St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Arch St Westbound				Front St Northbound				Arch St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 33 Front St & Arch St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Arch St Crossing East Leg	Front St Crossing South Leg	Arch St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	1
6:30 AM	0	1	0	1
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	1
7:30 AM	0	0	0	0
7:45 AM	0	0	0	2
8:00 AM	1	0	0	0
8:15 AM	1	1	1	2
8:30 AM	1	0	0	0
8:45 AM	0	0	0	1
9:00 AM	1	0	0	1
9:15 AM	0	0	0	2
9:30 AM	2	0	0	0
9:45 AM	1	1	4	6
10:00 AM	2	0	1	1
10:15 AM	0	2	1	1
10:30 AM	0	1	0	1
10:45 AM	2	1	2	1
11:00 AM	2	1	1	3
11:15 AM	0	2	1	1
11:30 AM	1	0	1	0
11:45 AM	0	0	0	3
12:00 PM	0	0	0	2
12:15 PM	0	2	0	0
12:30 PM	0	0	2	1
12:45 PM	3	0	0	4
1:00 PM	0	0	0	2
1:15 PM	1	1	0	1
1:30 PM	2	1	1	7
1:45 PM	2	0	0	2
2:00 PM	2	0	1	5
2:15 PM	3	0	0	2
2:30 PM	3	0	0	4
2:45 PM	1	0	1	7
3:00 PM	2	0	0	2
3:15 PM	0	0	0	2
3:30 PM	1	0	0	1
3:45 PM	2	1	1	1
4:00 PM	2	0	1	2
4:15 PM	2	1	0	2
4:30 PM	5	2	1	4
4:45 PM	1	1	0	3
5:00 PM	0	3	0	4
5:15 PM	1	2	2	2
5:30 PM	4	1	1	4
5:45 PM	1	0	2	7

Study Name **Location 33 Front St & Arch St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Arch St Crossing East Leg	Front St Crossing South Leg	Arch St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	1	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	1	0	1
7:45 AM	0	0	0	0
8:00 AM	0	0	0	1
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	1	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	1
10:45 AM	0	0	0	0
11:00 AM	0	0	0	1
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	3	0	0	2
12:15 PM	0	0	0	0
12:30 PM	0	0	1	0
12:45 PM	0	0	0	0
1:00 PM	1	0	1	2
1:15 PM	0	0	0	1
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	1	0	0	2
4:15 PM	0	0	0	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	1	0	1
5:30 PM	0	1	0	0
5:45 PM	0	1	0	1

Study Name **Location 33 Front St & Arch St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Arch St Westbound				Front St Northbound				Arch St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	7	0	0	0	0	0	0	1	6	0	0	0	0	0	0
6:15 AM	0	6	0	0	0	3	2	0	1	10	1	0	0	0	0	0
6:30 AM	0	5	0	0	0	3	2	0	0	16	2	0	0	0	1	0
6:45 AM	0	15	0	0	0	3	4	0	2	24	0	0	0	1	0	0
7:00 AM	0	12	0	0	1	4	3	0	1	39	1	0	0	1	0	0
7:15 AM	0	29	0	0	1	7	7	0	1	22	2	0	5	2	0	0
7:30 AM	1	23	1	0	2	1	7	0	2	19	4	0	2	0	0	0
7:45 AM	0	29	1	0	1	5	11	0	1	30	2	0	1	5	0	0
8:00 AM	0	23	0	0	0	2	6	0	1	31	3	0	2	2	0	0
8:15 AM	2	14	1	0	0	3	6	0	3	28	2	0	1	0	0	0
8:30 AM	0	24	0	0	1	5	5	0	3	37	2	0	0	1	1	0
8:45 AM	0	29	0	0	2	6	8	0	2	28	0	0	3	2	2	0
9:00 AM	0	18	1	0	0	2	7	0	0	25	2	0	0	1	0	0
9:15 AM	0	20	0	0	0	3	4	0	1	23	2	0	1	4	1	0
9:30 AM	1	15	0	0	0	7	6	0	3	24	3	0	2	3	1	0
9:45 AM	0	22	1	0	1	2	8	0	5	30	2	0	4	2	2	0
10:00 AM	1	22	0	0	0	2	8	0	0	26	4	0	0	4	1	0
10:15 AM	0	21	0	0	0	4	4	0	1	22	1	0	1	2	2	0
10:30 AM	1	20	0	0	0	10	5	0	2	20	3	0	2	2	0	0
10:45 AM	0	27	0	0	1	3	5	0	1	26	5	0	2	5	1	0
11:00 AM	2	20	1	0	0	5	9	0	2	25	3	0	2	4	2	0
11:15 AM	2	19	0	0	0	4	8	0	1	31	7	0	3	9	2	0
11:30 AM	0	27	1	0	0	5	4	0	3	31	1	0	0	3	3	0
11:45 AM	2	25	2	0	0	6	7	0	2	29	9	0	2	5	3	0
12:00 PM	0	26	1	0	0	2	11	0	2	38	5	0	4	11	1	0
12:15 PM	0	26	0	0	2	1	17	0	2	31	2	0	4	6	2	0
12:30 PM	1	34	0	0	0	7	7	0	3	30	4	0	2	2	0	0
12:45 PM	2	31	1	0	3	6	12	0	4	39	8	0	2	6	3	0
1:00 PM	2	26	1	0	0	8	8	0	2	32	5	0	3	5	0	0
1:15 PM	1	40	2	0	0	7	7	0	5	32	5	0	3	5	2	0
1:30 PM	2	28	1	0	1	3	13	0	3	24	5	0	2	5	3	0
1:45 PM	0	29	1	0	0	8	8	0	2	39	4	0	3	7	1	0
2:00 PM	2	23	1	0	0	7	6	0	0	28	4	0	2	7	0	0
2:15 PM	0	32	3	0	1	2	8	0	3	34	5	0	2	1	3	0
2:30 PM	1	25	3	0	0	6	7	0	2	32	4	0	4	9	2	0
2:45 PM	1	31	1	0	1	4	5	0	6	33	11	0	2	9	1	0
3:00 PM	2	30	0	0	0	4	7	0	1	30	3	0	2	7	2	0
3:15 PM	0	25	0	0	0	7	8	0	3	31	9	0	0	7	1	0
3:30 PM	0	34	0	0	0	5	6	0	3	31	3	0	4	6	2	0
3:45 PM	0	31	0	0	0	5	7	0	6	38	3	0	5	6	4	0
4:00 PM	1	28	1	0	1	5	9	0	4	41	4	0	0	3	0	0
4:15 PM	0	44	1	0	0	5	12	0	6	36	6	0	2	7	2	0
4:30 PM	2	35	0	0	1	2	17	0	2	55	5	0	3	13	2	0
4:45 PM	0	32	3	0	0	5	16	0	4	56	2	0	2	8	0	0
5:00 PM	1	49	3	0	0	8	11	0	0	50	7	0	4	7	1	0
5:15 PM	0	49	1	0	0	3	9	0	4	56	5	0	5	0	2	0
5:30 PM	3	40	1	0	2	6	3	0	1	45	4	0	4	5	2	0
5:45 PM	2	38	1	0	2	7	7	0	5	44	2	0	3	7	1	0

Study Name **Location 34 Pine St & Ridge St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound			Ridge St Westbound			Ridge St Eastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	3	0	0	0	2	0	1	1	0
6:15 AM	3	0	0	0	3	0	1	2	0
6:30 AM	4	0	0	1	2	0	0	3	0
6:45 AM	4	0	0	2	5	0	2	1	0
7:00 AM	1	0	0	0	7	0	5	3	0
7:15 AM	1	0	0	1	6	0	3	4	0
7:30 AM	5	0	0	1	10	0	5	4	0
7:45 AM	3	0	0	0	10	0	1	6	0
8:00 AM	0	0	0	0	3	0	6	9	0
8:15 AM	4	0	0	0	3	0	2	4	0
8:30 AM	4	0	0	0	4	0	2	5	0
8:45 AM	3	0	0	0	8	0	3	4	0
9:00 AM	2	0	0	0	9	0	9	5	0
9:15 AM	6	0	0	1	11	0	5	6	0
9:30 AM	4	0	0	2	4	0	2	2	0
9:45 AM	6	0	0	0	11	0	8	6	0
10:00 AM	2	0	0	1	5	0	6	3	0
10:15 AM	8	4	0	1	1	0	6	4	0
10:30 AM	5	2	0	0	9	0	5	7	0
10:45 AM	5	0	0	0	6	0	5	2	0
11:00 AM	4	0	0	0	8	0	5	4	0
11:15 AM	6	0	0	2	5	0	7	5	0
11:30 AM	9	1	0	0	10	0	18	5	0
11:45 AM	5	0	0	2	10	0	16	9	0
12:00 PM	2	4	0	2	8	0	11	7	0
12:15 PM	2	2	0	1	11	0	9	9	0
12:30 PM	3	2	0	0	7	0	11	7	0
12:45 PM	3	3	0	1	8	0	11	9	0
1:00 PM	4	2	0	0	9	0	9	6	0
1:15 PM	5	1	0	0	16	0	14	7	0
1:30 PM	6	1	0	1	9	0	10	5	0
1:45 PM	6	1	0	1	7	0	11	9	0
2:00 PM	7	0	0	3	12	0	17	6	0
2:15 PM	6	0	0	0	17	0	12	6	0
2:30 PM	7	1	0	0	8	0	14	7	0
2:45 PM	5	1	0	0	10	0	11	8	0
3:00 PM	3	0	0	1	12	0	10	9	0
3:15 PM	3	1	0	2	9	0	9	4	0
3:30 PM	5	1	0	1	10	0	10	7	0
3:45 PM	9	2	0	4	14	0	10	7	0
4:00 PM	6	1	0	2	10	0	13	6	0
4:15 PM	8	1	0	1	7	0	18	11	0
4:30 PM	8	1	0	1	11	0	14	9	0
4:45 PM	10	4	0	1	8	0	16	10	0
5:00 PM	9	1	0	1	10	0	20	12	0
5:15 PM	9	1	0	0	9	0	19	11	0
5:30 PM	9	2	0	2	12	0	14	12	0
5:45 PM	3	2	0	0	8	0	6	11	0

Study Name **Location 34 Pine St & Ridge St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound			Ridge St Westbound			Ridge St Eastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	1	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	1	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	2	0
8:45 AM	0	0	0	0	1	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	1	0
9:15 AM	0	0	0	0	0	0	0	1	0
9:30 AM	0	0	0	0	0	0	0	1	0
9:45 AM	1	0	0	0	1	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	1	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	1	0
10:45 AM	0	0	0	0	0	0	0	1	0
11:00 AM	0	0	0	0	0	0	0	1	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	1	0
12:00 PM	0	0	0	0	0	0	0	1	0
12:15 PM	0	0	0	0	1	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	1	0
12:45 PM	0	0	0	0	1	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	1	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	1	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	1	0
2:15 PM	0	0	0	0	0	0	1	0	0
2:30 PM	0	0	0	0	0	0	0	1	0
2:45 PM	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	1	0	0	2	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0
5:15 PM	0	1	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 34 Pine St & Ridge St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound			Ridge St Westbound			Ridge St Eastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	2	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	2	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 34 Pine St & Ridge St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Crossing North Leg	Ridge St Crossing East Leg	Ridge St Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	1	0	0
6:15 AM	1	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	2	0	0
7:30 AM	0	0	0
7:45 AM	1	0	0
8:00 AM	2	0	0
8:15 AM	2	0	0
8:30 AM	2	0	0
8:45 AM	0	0	0
9:00 AM	1	0	0
9:15 AM	1	0	0
9:30 AM	2	0	0
9:45 AM	2	2	1
10:00 AM	0	0	0
10:15 AM	1	0	1
10:30 AM	4	0	0
10:45 AM	1	0	0
11:00 AM	3	0	2
11:15 AM	1	0	1
11:30 AM	0	0	0
11:45 AM	0	0	1
12:00 PM	2	0	1
12:15 PM	0	0	0
12:30 PM	2	0	1
12:45 PM	2	0	0
1:00 PM	2	0	0
1:15 PM	3	0	0
1:30 PM	5	0	0
1:45 PM	0	0	0
2:00 PM	2	0	0
2:15 PM	1	0	1
2:30 PM	1	0	1
2:45 PM	2	0	0
3:00 PM	0	0	1
3:15 PM	3	0	0
3:30 PM	1	0	0
3:45 PM	0	0	0
4:00 PM	1	0	0
4:15 PM	1	0	0
4:30 PM	3	0	3
4:45 PM	2	0	2
5:00 PM	3	0	2
5:15 PM	1	0	0
5:30 PM	2	0	0
5:45 PM	1	0	0

Study Name **Location 34 Pine St & Ridge St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Crossing North Leg	Ridge St Crossing East Leg	Ridge St Crossing West Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	1	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	1	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	1	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	1
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0

Study Name **Location 34 Pine St & Ridge St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pine St Southbound			Ridge St Westbound			Ridge St Eastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	3	0	0	0	2	0	1	1	0
6:15 AM	3	0	0	0	3	0	1	2	0
6:30 AM	4	0	0	1	2	0	0	4	0
6:45 AM	4	0	0	2	5	0	2	3	0
7:00 AM	1	0	0	0	7	0	5	5	0
7:15 AM	1	0	0	1	6	0	3	5	0
7:30 AM	5	0	0	1	10	0	6	5	0
7:45 AM	3	0	0	0	10	0	1	6	0
8:00 AM	0	0	0	0	3	0	6	10	0
8:15 AM	4	0	0	0	3	0	2	4	0
8:30 AM	4	0	0	0	4	0	2	7	0
8:45 AM	3	0	0	0	9	0	3	4	0
9:00 AM	2	0	0	0	9	0	9	6	0
9:15 AM	6	0	0	1	11	0	5	7	0
9:30 AM	4	0	0	2	4	0	2	3	0
9:45 AM	7	0	0	0	12	0	8	6	0
10:00 AM	2	0	0	1	5	0	6	4	0
10:15 AM	8	4	0	1	1	0	6	4	0
10:30 AM	5	2	0	0	9	0	5	8	0
10:45 AM	5	0	0	0	6	0	5	3	0
11:00 AM	4	0	0	0	8	0	6	5	0
11:15 AM	6	0	0	2	5	0	7	5	0
11:30 AM	9	1	0	0	10	0	18	6	0
11:45 AM	5	0	0	2	10	0	16	10	0
12:00 PM	2	4	0	2	8	0	11	8	0
12:15 PM	2	2	0	1	12	0	9	9	0
12:30 PM	3	2	0	0	7	0	11	8	0
12:45 PM	3	3	0	1	9	0	11	9	0
1:00 PM	4	2	0	0	9	0	9	7	0
1:15 PM	5	1	0	0	16	0	14	7	0
1:30 PM	6	1	0	1	9	0	10	6	0
1:45 PM	6	1	0	1	7	0	11	9	0
2:00 PM	7	0	0	3	12	0	17	7	0
2:15 PM	6	0	0	0	17	0	13	6	0
2:30 PM	9	1	0	0	8	0	14	8	0
2:45 PM	5	1	0	0	10	0	12	8	0
3:00 PM	3	0	0	1	13	0	10	12	0
3:15 PM	3	1	0	2	9	0	9	4	0
3:30 PM	5	1	0	1	10	0	10	8	0
3:45 PM	9	2	0	4	14	0	11	7	0
4:00 PM	6	1	0	2	10	0	14	6	0
4:15 PM	8	1	0	1	7	0	18	11	0
4:30 PM	8	1	0	1	11	0	14	10	0
4:45 PM	10	4	0	1	8	0	16	10	0
5:00 PM	9	1	0	1	10	0	20	13	0
5:15 PM	9	2	0	0	9	0	19	11	0
5:30 PM	9	2	0	2	12	0	14	13	0
5:45 PM	3	2	0	0	8	0	6	11	0

Study Name **Location 35 Lakeshore Blvd & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound				Spring St Westbound				Lakeshore Blvd Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	5	0	0	0	0	0	0	0	6	0	0	0	0	0	0
6:15 AM	1	6	0	0	0	1	0	0	0	15	1	0	0	0	0	0
6:30 AM	0	6	0	0	0	1	0	0	0	21	0	0	0	0	0	0
6:45 AM	1	4	0	0	0	0	0	0	0	19	0	0	0	0	0	0
7:00 AM	4	8	0	0	0	0	0	0	2	19	1	0	0	0	0	0
7:15 AM	7	7	1	0	0	0	0	0	0	24	3	0	0	0	0	0
7:30 AM	8	20	0	0	0	0	0	0	1	29	2	0	0	0	0	0
7:45 AM	4	20	1	0	0	0	0	0	4	34	6	0	0	0	0	0
8:00 AM	3	8	0	0	0	1	0	0	3	33	4	0	0	0	0	0
8:15 AM	7	26	0	0	0	0	0	0	0	28	4	0	0	0	0	0
8:30 AM	7	5	0	0	0	1	1	0	2	33	3	0	0	0	0	0
8:45 AM	5	19	0	0	0	1	0	0	2	22	7	0	0	0	0	0
9:00 AM	4	19	0	0	0	0	1	0	1	22	1	0	0	0	0	0
9:15 AM	6	17	0	0	0	0	0	0	0	23	3	0	0	0	0	0
9:30 AM	5	10	1	0	1	0	2	0	2	24	5	0	0	0	0	0
9:45 AM	6	14	0	0	0	0	0	0	1	28	6	0	0	0	0	0
10:00 AM	4	17	0	0	0	0	0	0	1	30	3	0	0	0	0	0
10:15 AM	5	19	0	0	0	0	1	0	0	28	2	0	0	0	1	0
10:30 AM	4	20	0	0	0	1	3	0	1	20	1	0	0	0	0	0
10:45 AM	7	23	0	0	1	1	0	0	0	23	1	0	0	0	0	0
11:00 AM	4	19	0	0	0	0	0	0	2	27	7	0	0	0	0	0
11:15 AM	14	17	2	0	0	1	2	0	1	31	3	0	0	0	0	0
11:30 AM	11	23	1	0	1	3	1	0	1	30	0	0	0	0	0	0
11:45 AM	14	33	1	0	1	1	0	0	1	21	1	0	0	0	0	0
12:00 PM	13	34	0	0	0	1	1	0	0	28	2	0	0	0	0	0
12:15 PM	6	28	0	0	0	0	3	0	0	32	1	0	0	0	0	0
12:30 PM	13	32	0	0	0	0	0	0	3	47	0	0	0	0	0	0
12:45 PM	15	24	0	0	0	1	1	0	1	36	2	0	0	0	0	0
1:00 PM	10	23	0	0	1	0	0	0	0	38	5	0	0	0	0	0
1:15 PM	11	37	2	0	1	1	1	0	3	33	4	0	0	0	0	0
1:30 PM	19	21	2	0	1	1	1	0	1	47	0	0	0	0	0	0
1:45 PM	15	30	0	0	0	3	0	0	0	23	7	0	0	0	0	0
2:00 PM	18	28	1	0	0	2	2	0	1	22	2	0	0	0	0	0
2:15 PM	16	32	1	0	0	0	1	0	2	35	5	0	0	0	0	0
2:30 PM	14	36	1	0	0	0	0	0	2	47	3	0	0	0	0	0
2:45 PM	13	28	0	0	1	5	2	0	0	30	1	0	0	0	0	0
3:00 PM	9	35	2	0	0	2	2	0	3	37	3	0	0	0	0	0
3:15 PM	15	25	0	0	0	3	2	0	2	29	2	0	0	0	0	0
3:30 PM	15	39	0	0	0	0	2	0	1	38	0	0	0	0	0	0
3:45 PM	8	46	0	0	0	3	2	0	2	51	2	0	0	0	0	0
4:00 PM	13	61	0	0	0	0	0	0	1	42	3	0	0	0	0	0
4:15 PM	18	39	1	0	0	0	3	0	3	34	3	0	0	0	0	0
4:30 PM	11	46	1	0	2	1	2	0	2	43	2	0	0	0	0	0
4:45 PM	13	37	0	0	1	0	1	0	3	39	1	0	0	0	0	0
5:00 PM	21	58	1	0	1	6	0	0	0	39	2	0	0	0	0	0
5:15 PM	11	40	1	0	2	0	1	0	0	54	1	0	0	0	0	0
5:30 PM	10	38	0	0	0	1	1	0	0	30	1	0	0	0	0	0
5:45 PM	18	37	2	0	0	1	1	0	1	38	0	0	0	0	0	0

Study Name **Location 35 Lakeshore Blvd & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound				Spring St Westbound				Lakeshore Blvd Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:45 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0
3:15 PM	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 35 Lakeshore Blvd & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound				Spring St Westbound				Lakeshore Blvd Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 35 Lakeshore Blvd & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Spring St Crossing East Leg	Lakeshore Blvd Crossing South Leg	Spring St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	1	0	0	0
6:15 AM	0	5	0	0
6:30 AM	0	0	0	0
6:45 AM	0	5	0	0
7:00 AM	0	1	0	0
7:15 AM	2	1	0	0
7:30 AM	1	2	0	0
7:45 AM	1	5	0	0
8:00 AM	0	3	1	1
8:15 AM	0	3	1	0
8:30 AM	0	4	0	0
8:45 AM	0	0	0	0
9:00 AM	0	5	0	0
9:15 AM	0	5	0	0
9:30 AM	0	3	0	0
9:45 AM	0	4	0	0
10:00 AM	0	8	2	0
10:15 AM	0	6	0	5
10:30 AM	0	6	0	0
10:45 AM	0	9	0	0
11:00 AM	0	5	0	1
11:15 AM	0	2	0	0
11:30 AM	2	2	4	0
11:45 AM	1	3	0	0
12:00 PM	2	1	0	0
12:15 PM	1	3	0	0
12:30 PM	5	5	0	0
12:45 PM	2	2	0	0
1:00 PM	3	4	0	0
1:15 PM	0	2	2	1
1:30 PM	1	4	0	0
1:45 PM	0	3	0	0
2:00 PM	2	0	1	0
2:15 PM	0	9	0	0
2:30 PM	3	5	0	0
2:45 PM	0	4	0	0
3:00 PM	2	0	0	0
3:15 PM	1	5	0	4
3:30 PM	1	7	0	0
3:45 PM	0	5	0	0
4:00 PM	0	2	0	0
4:15 PM	0	6	0	0
4:30 PM	1	5	0	0
4:45 PM	3	11	2	0
5:00 PM	1	10	0	0
5:15 PM	3	10	0	0
5:30 PM	1	11	4	1
5:45 PM	0	9	2	0

Study Name **Location 35 Lakeshore Blvd & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Spring St Crossing East Leg	Lakeshore Blvd Crossing South Leg	Spring St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	0	1	0	0
7:00 AM	0	0	0	0
7:15 AM	0	1	0	0
7:30 AM	0	1	0	0
7:45 AM	0	0	0	0
8:00 AM	0	1	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	1	0	1
9:45 AM	2	2	0	0
10:00 AM	0	1	0	0
10:15 AM	0	0	0	0
10:30 AM	1	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	5	7	0	0
11:45 AM	0	2	0	0
12:00 PM	0	2	0	0
12:15 PM	0	3	0	0
12:30 PM	0	4	0	0
12:45 PM	0	4	0	0
1:00 PM	0	5	0	0
1:15 PM	0	6	0	0
1:30 PM	1	6	0	0
1:45 PM	1	6	0	0
2:00 PM	3	7	0	0
2:15 PM	1	0	0	0
2:30 PM	0	1	0	0
2:45 PM	2	2	0	0
3:00 PM	1	4	0	0
3:15 PM	0	5	0	0
3:30 PM	2	3	0	0
3:45 PM	5	10	0	0
4:00 PM	0	0	0	0
4:15 PM	0	3	0	0
4:30 PM	6	0	0	0
4:45 PM	1	4	0	0
5:00 PM	1	6	0	0
5:15 PM	1	2	0	0
5:30 PM	1	10	0	0
5:45 PM	0	10	0	0

Study Name **Location 35 Lakeshore Blvd & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound				Spring St Westbound				Lakeshore Blvd Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	5	0	0	0	0	0	0	0	6	0	0	0	0	0	0
6:15 AM	1	6	0	0	0	1	0	0	0	15	1	0	0	0	0	0
6:30 AM	0	6	0	0	0	1	0	0	0	22	0	0	0	0	0	0
6:45 AM	1	5	0	0	0	0	0	0	0	19	0	0	0	0	0	0
7:00 AM	4	8	0	0	0	0	0	0	2	19	1	0	0	0	0	0
7:15 AM	7	7	1	0	0	0	0	0	0	25	3	0	0	0	0	0
7:30 AM	9	21	0	0	0	0	0	0	1	31	2	0	0	0	0	0
7:45 AM	4	20	1	0	0	0	0	0	4	34	6	0	0	0	0	0
8:00 AM	4	9	0	0	0	1	0	0	3	33	5	0	0	0	0	0
8:15 AM	7	26	0	0	0	0	0	0	0	28	4	0	0	0	0	0
8:30 AM	9	7	0	0	0	1	1	0	2	34	3	0	0	0	0	0
8:45 AM	5	21	0	0	0	1	0	0	2	26	7	0	0	0	0	0
9:00 AM	4	20	0	0	0	0	1	0	1	22	2	0	0	0	0	0
9:15 AM	6	17	0	0	0	0	0	0	0	24	3	0	0	0	0	0
9:30 AM	6	10	1	0	1	0	2	0	2	26	5	0	0	0	0	0
9:45 AM	7	14	0	0	0	0	0	0	1	30	6	0	0	0	0	0
10:00 AM	4	17	0	0	0	0	0	0	1	30	4	0	0	0	0	0
10:15 AM	5	20	0	0	0	0	1	0	0	28	2	0	0	0	1	0
10:30 AM	4	20	0	0	0	1	3	0	1	21	1	0	0	0	0	0
10:45 AM	7	23	0	0	1	1	0	0	0	23	1	0	0	0	0	0
11:00 AM	4	20	0	0	0	0	0	0	2	27	7	0	0	0	0	0
11:15 AM	15	17	2	0	0	1	2	0	1	31	3	0	0	0	0	0
11:30 AM	11	23	1	0	1	3	1	0	1	32	0	0	0	0	0	0
11:45 AM	14	33	1	0	1	1	0	0	1	21	1	0	0	0	0	0
12:00 PM	13	34	0	0	0	1	1	0	0	29	2	0	0	0	0	0
12:15 PM	6	28	0	0	0	0	3	0	0	33	1	0	0	0	0	0
12:30 PM	13	35	0	0	0	0	0	0	3	47	0	0	0	0	0	0
12:45 PM	15	24	0	0	0	1	1	0	1	36	2	0	0	0	0	0
1:00 PM	11	23	0	0	1	0	0	0	0	38	5	0	0	0	0	0
1:15 PM	11	37	2	0	1	1	1	0	3	34	4	0	0	0	0	0
1:30 PM	21	21	2	0	1	1	1	0	1	47	0	0	0	0	0	0
1:45 PM	15	30	0	0	0	3	0	0	0	25	7	0	0	0	0	0
2:00 PM	18	28	1	0	0	2	2	0	1	23	2	0	0	0	0	0
2:15 PM	17	32	1	0	0	0	1	0	2	36	5	0	0	0	0	0
2:30 PM	14	36	1	0	0	0	0	0	2	48	3	0	0	0	0	0
2:45 PM	13	28	0	0	1	5	2	0	0	30	1	0	0	0	0	0
3:00 PM	9	36	2	0	0	4	2	0	4	37	3	0	0	0	0	0
3:15 PM	17	25	0	0	0	3	2	0	2	31	2	0	0	0	0	0
3:30 PM	15	39	0	0	0	0	2	0	1	39	0	0	0	0	0	0
3:45 PM	8	46	0	0	0	3	2	0	2	51	2	0	0	0	0	0
4:00 PM	13	61	0	0	0	0	0	0	1	42	3	0	0	0	0	0
4:15 PM	19	40	1	0	1	0	3	0	3	34	3	0	0	0	0	0
4:30 PM	12	47	1	0	2	1	2	0	2	43	2	0	0	0	0	0
4:45 PM	13	38	0	0	1	0	1	0	3	39	1	0	0	0	0	0
5:00 PM	22	58	1	0	1	6	0	0	0	39	2	0	0	0	0	0
5:15 PM	11	40	1	0	2	0	1	0	0	54	1	0	0	0	0	0
5:30 PM	10	39	0	0	0	1	1	0	0	30	1	0	0	0	0	0
5:45 PM	18	37	2	0	0	1	1	0	1	38	0	0	0	0	0	0

Study Name **Location 36 Lakeshore Blvd & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound				Baraga Ave Westbound				Lakeshore Blvd Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	5	0	0	0	0	0	0	0	4	2	0	0	0	2	0
6:15 AM	0	5	0	0	0	0	0	0	0	11	1	0	0	0	6	0
6:30 AM	1	5	0	0	0	0	0	0	0	13	2	0	0	0	11	0
6:45 AM	0	4	0	0	0	0	0	0	0	16	3	0	3	0	6	0
7:00 AM	2	6	0	0	0	0	0	0	0	13	1	0	1	0	7	0
7:15 AM	2	7	0	0	0	0	0	0	0	16	3	0	2	0	12	0
7:30 AM	7	12	0	0	0	0	0	0	1	15	6	0	0	1	17	0
7:45 AM	3	18	0	0	0	0	0	0	2	34	5	0	1	0	17	0
8:00 AM	3	6	0	0	0	0	1	0	1	17	5	0	0	0	19	0
8:15 AM	7	18	0	0	0	0	0	0	0	15	4	0	1	0	15	0
8:30 AM	3	5	0	0	0	0	0	0	0	21	2	0	0	0	19	0
8:45 AM	5	12	0	0	0	0	0	0	0	12	4	0	4	1	18	0
9:00 AM	4	15	1	0	0	0	0	0	0	11	3	0	2	0	10	0
9:15 AM	4	12	1	0	0	0	2	0	1	15	1	0	2	0	8	0
9:30 AM	4	6	0	0	0	0	0	0	0	16	2	0	2	0	16	0
9:45 AM	2	12	0	0	1	0	0	0	1	22	2	0	2	0	10	0
10:00 AM	5	11	0	0	0	1	0	0	1	21	3	0	1	0	13	0
10:15 AM	6	14	0	0	0	0	0	0	1	20	0	0	1	0	12	0
10:30 AM	9	15	0	0	0	1	1	0	2	12	4	0	0	0	9	0
10:45 AM	6	19	0	0	0	1	0	0	0	15	1	0	2	4	10	0
11:00 AM	5	14	0	0	4	1	0	0	1	16	2	0	1	0	15	1
11:15 AM	3	17	0	0	0	0	0	0	0	20	3	0	1	1	16	0
11:30 AM	7	16	1	0	2	0	0	0	0	15	1	0	0	0	13	0
11:45 AM	9	21	0	0	0	1	0	0	0	13	2	0	2	0	8	0
12:00 PM	6	29	1	0	0	2	0	0	1	19	1	0	1	2	12	0
12:15 PM	2	28	2	0	1	0	1	0	1	13	3	0	8	3	16	0
12:30 PM	7	23	2	0	2	1	2	0	1	32	3	0	2	1	17	0
12:45 PM	3	23	0	0	0	2	1	0	1	23	6	0	4	1	18	0
1:00 PM	4	16	1	0	2	0	1	0	0	23	2	0	2	0	19	0
1:15 PM	4	33	1	0	0	1	0	0	0	26	1	0	0	1	16	0
1:30 PM	2	19	1	0	2	1	0	0	2	24	4	0	0	1	18	0
1:45 PM	3	26	0	0	0	2	0	0	0	18	0	0	2	0	13	0
2:00 PM	5	24	0	0	0	0	0	0	0	17	3	0	2	0	9	0
2:15 PM	7	25	2	0	2	1	1	0	0	14	0	0	4	1	26	0
2:30 PM	6	33	0	0	0	2	0	0	0	30	0	0	5	1	20	0
2:45 PM	6	20	0	0	0	0	0	0	1	17	4	0	2	0	13	0
3:00 PM	13	27	0	0	3	0	0	0	2	25	3	0	5	2	16	0
3:15 PM	5	20	1	0	0	1	4	0	1	12	3	0	3	2	20	0
3:30 PM	3	35	0	0	0	1	0	0	0	24	1	0	3	1	14	0
3:45 PM	8	39	2	0	0	3	0	0	1	26	3	0	1	2	25	0
4:00 PM	7	55	0	0	1	0	0	0	1	23	3	0	1	1	19	0
4:15 PM	7	35	1	0	3	0	1	0	2	21	3	0	7	2	16	0
4:30 PM	5	43	0	0	1	2	0	0	1	31	1	0	4	0	17	0
4:45 PM	6	37	0	0	2	1	2	0	1	17	3	0	5	1	27	0
5:00 PM	11	46	1	0	0	0	1	0	0	15	2	0	2	2	25	0
5:15 PM	13	25	3	0	1	2	0	0	0	28	5	0	5	1	27	0
5:30 PM	7	34	0	0	0	2	0	0	0	12	4	0	3	0	18	0
5:45 PM	9	28	0	0	0	1	0	0	1	21	3	0	6	0	20	0

Study Name **Location 36 Lakeshore Blvd & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound				Baraga Ave Westbound				Lakeshore Blvd Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
8:45 AM	0	2	0	0	0	0	0	0	1	1	0	0	0	0	2	0
9:00 AM	1	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:30 PM	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 36 Lakeshore Blvd & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound				Baraga Ave Westbound				Lakeshore Blvd Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 36 Lakeshore Blvd & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Baraga Ave Crossing East Leg	Lakeshore Blvd Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	1	1	0	0
6:15 AM	1	4	0	0
6:30 AM	0	0	0	0
6:45 AM	1	4	0	0
7:00 AM	0	1	0	0
7:15 AM	0	1	0	0
7:30 AM	0	1	2	0
7:45 AM	2	7	0	0
8:00 AM	1	2	0	0
8:15 AM	2	5	0	0
8:30 AM	2	4	0	0
8:45 AM	2	0	0	0
9:00 AM	0	5	0	0
9:15 AM	0	4	0	0
9:30 AM	1	5	3	3
9:45 AM	0	5	0	0
10:00 AM	1	6	1	0
10:15 AM	0	6	0	2
10:30 AM	0	5	4	0
10:45 AM	0	6	2	0
11:00 AM	0	9	0	0
11:15 AM	2	1	0	3
11:30 AM	0	6	1	0
11:45 AM	1	2	2	0
12:00 PM	0	1	2	0
12:15 PM	1	1	1	0
12:30 PM	3	3	0	0
12:45 PM	1	0	0	0
1:00 PM	1	5	2	0
1:15 PM	2	6	1	0
1:30 PM	1	4	0	0
1:45 PM	1	5	3	0
2:00 PM	0	0	0	0
2:15 PM	0	6	0	0
2:30 PM	0	1	2	0
2:45 PM	2	6	0	0
3:00 PM	0	6	2	0
3:15 PM	0	9	1	0
3:30 PM	0	7	3	0
3:45 PM	0	8	4	0
4:00 PM	1	7	4	0
4:15 PM	0	8	0	0
4:30 PM	1	4	0	0
4:45 PM	0	7	1	0
5:00 PM	0	9	2	0
5:15 PM	4	15	0	0
5:30 PM	1	11	0	0
5:45 PM	3	9	2	0

Study Name **Location 36 Lakeshore Blvd & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Baraga Ave Crossing East Leg	Lakeshore Blvd Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	0	1	0	0
7:00 AM	0	0	0	0
7:15 AM	0	1	0	0
7:30 AM	0	1	1	0
7:45 AM	0	0	0	0
8:00 AM	0	2	0	0
8:15 AM	1	2	0	0
8:30 AM	0	1	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	2	2	0	1
9:30 AM	0	1	0	0
9:45 AM	0	2	0	0
10:00 AM	0	1	0	0
10:15 AM	0	0	0	0
10:30 AM	1	4	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	6	0	0
11:45 AM	0	4	0	0
12:00 PM	0	1	0	0
12:15 PM	0	4	0	0
12:30 PM	0	4	0	0
12:45 PM	0	4	0	0
1:00 PM	0	5	0	0
1:15 PM	0	6	0	0
1:30 PM	0	5	1	0
1:45 PM	0	4	0	0
2:00 PM	0	7	0	0
2:15 PM	0	0	0	0
2:30 PM	0	3	0	0
2:45 PM	0	2	0	0
3:00 PM	0	0	0	0
3:15 PM	0	2	0	0
3:30 PM	0	2	0	0
3:45 PM	0	4	0	0
4:00 PM	1	2	0	0
4:15 PM	0	3	0	0
4:30 PM	2	5	0	0
4:45 PM	0	6	0	0
5:00 PM	1	5	2	0
5:15 PM	0	3	0	0
5:30 PM	0	7	0	0
5:45 PM	0	11	1	0

Study Name **Location 36 Lakeshore Blvd & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound				Baraga Ave Westbound				Lakeshore Blvd Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	5	0	0	0	0	0	0	0	4	2	0	1	0	2	0
6:15 AM	0	5	0	0	0	0	0	0	0	11	1	0	0	0	6	0
6:30 AM	1	5	0	0	0	0	0	0	0	13	2	0	0	0	12	0
6:45 AM	0	5	0	0	0	0	0	0	0	16	3	0	3	0	6	0
7:00 AM	2	6	0	0	0	0	0	0	0	13	2	0	2	0	7	0
7:15 AM	2	7	0	0	0	0	0	0	0	16	3	0	2	0	13	0
7:30 AM	7	13	0	0	0	0	0	0	1	15	6	0	0	1	19	0
7:45 AM	3	18	0	0	0	0	0	0	2	34	5	0	1	0	17	0
8:00 AM	3	7	0	0	0	0	1	0	1	17	6	0	0	0	21	0
8:15 AM	7	18	0	0	0	0	0	0	0	15	4	0	1	0	15	0
8:30 AM	5	5	0	0	0	0	0	0	0	21	2	0	0	0	21	0
8:45 AM	5	14	0	0	0	0	0	0	1	13	4	0	4	1	21	0
9:00 AM	5	15	1	0	0	1	0	0	0	13	3	0	3	0	10	0
9:15 AM	4	12	1	0	0	0	2	0	1	15	1	0	2	0	9	0
9:30 AM	4	6	0	0	0	0	0	0	0	17	3	0	2	0	16	0
9:45 AM	2	12	0	0	1	0	0	0	1	22	2	0	3	0	12	0
10:00 AM	5	11	0	0	0	1	0	0	1	22	3	0	2	0	13	0
10:15 AM	7	14	0	0	0	0	0	0	1	20	0	0	1	0	12	0
10:30 AM	9	15	0	0	0	1	1	0	2	12	4	0	1	0	10	0
10:45 AM	6	19	0	0	0	1	0	0	0	15	1	0	2	4	10	0
11:00 AM	5	15	0	0	4	2	0	0	1	16	2	0	2	1	15	1
11:15 AM	3	17	0	0	0	0	0	0	0	20	3	0	1	1	16	0
11:30 AM	7	16	1	0	2	0	0	0	0	15	1	0	0	0	15	0
11:45 AM	10	21	0	0	0	1	0	0	0	13	2	0	2	0	9	0
12:00 PM	6	29	1	0	0	3	0	0	1	19	1	0	2	2	12	0
12:15 PM	2	28	2	0	1	0	1	0	1	13	3	0	8	3	17	0
12:30 PM	8	25	2	0	2	1	2	0	1	32	4	0	2	1	17	0
12:45 PM	3	23	0	0	0	2	1	0	1	23	6	0	4	1	18	0
1:00 PM	4	17	1	0	2	0	1	0	0	23	2	0	3	0	19	0
1:15 PM	4	33	1	0	0	1	0	0	0	26	1	0	0	1	17	0
1:30 PM	2	19	1	0	2	1	0	0	2	25	4	0	0	1	18	0
1:45 PM	3	26	0	0	0	2	0	0	0	18	0	0	2	0	15	0
2:00 PM	6	24	0	0	0	0	0	0	0	17	3	0	3	0	10	0
2:15 PM	7	25	2	0	2	1	1	0	0	14	0	0	4	1	27	0
2:30 PM	6	33	0	0	0	2	0	0	0	30	0	0	5	1	21	0
2:45 PM	6	20	0	0	0	0	0	0	1	17	4	0	2	0	13	0
3:00 PM	14	27	0	0	3	0	0	0	2	25	3	0	6	2	17	0
3:15 PM	5	20	1	0	0	1	4	0	1	13	3	0	3	2	21	0
3:30 PM	3	35	0	0	0	1	0	0	0	24	1	0	3	1	15	0
3:45 PM	8	39	2	0	0	3	0	0	1	26	3	0	1	2	25	0
4:00 PM	7	55	0	0	1	0	0	0	1	23	3	0	3	1	19	0
4:15 PM	8	35	1	0	3	0	1	0	2	21	3	0	7	3	16	0
4:30 PM	5	44	0	0	1	2	0	0	1	31	1	0	4	0	17	0
4:45 PM	6	38	0	0	2	1	2	0	1	17	3	0	5	1	27	0
5:00 PM	11	46	1	0	0	0	1	0	0	15	2	0	3	2	26	0
5:15 PM	13	25	3	0	1	2	0	0	0	28	5	0	5	1	27	0
5:30 PM	8	34	0	0	0	2	0	0	0	12	4	0	3	0	18	0
5:45 PM	9	28	0	0	0	1	0	0	1	21	3	0	6	0	20	0

Study Name **Location 37 Front St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Baraga Ave Westbound				Front St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	11	0	0	0	0	2	0	2	23	4	0	1	0	0	0
6:15 AM	1	17	0	0	0	0	2	0	3	38	6	0	1	3	0	0
6:30 AM	1	19	0	0	1	1	1	0	9	53	8	0	3	1	0	0
6:45 AM	0	23	1	0	0	0	3	0	6	66	17	0	4	0	1	0
7:00 AM	0	22	0	0	1	2	0	0	7	57	7	0	4	3	4	0
7:15 AM	3	46	0	0	0	3	2	0	11	63	8	0	4	2	1	0
7:30 AM	0	53	0	0	3	1	6	0	14	73	20	0	4	2	0	0
7:45 AM	3	49	1	0	1	3	4	0	15	101	41	0	14	4	2	0
8:00 AM	3	38	0	0	4	0	2	0	16	80	18	0	6	3	0	0
8:15 AM	1	24	1	0	2	2	7	0	13	64	18	0	9	3	0	0
8:30 AM	6	32	2	0	2	2	3	0	18	88	13	0	8	3	0	0
8:45 AM	3	37	2	0	4	3	1	0	20	97	13	0	3	3	4	0
9:00 AM	2	33	2	0	1	3	2	0	11	67	10	0	12	3	1	0
9:15 AM	4	24	1	0	5	0	1	0	6	49	14	0	4	3	0	0
9:30 AM	3	42	0	0	2	2	4	0	12	73	22	0	6	5	4	0
9:45 AM	4	51	2	0	2	1	0	0	13	81	21	0	6	1	8	0
10:00 AM	8	44	0	0	3	6	1	0	8	67	18	0	14	3	0	0
10:15 AM	4	38	3	0	1	4	1	0	7	51	15	0	11	4	5	0
10:30 AM	8	45	4	0	5	5	4	0	8	56	10	0	14	2	3	0
10:45 AM	5	39	4	0	2	2	2	0	9	69	14	0	9	2	6	0
11:00 AM	6	36	2	0	1	2	8	0	13	52	11	0	5	4	2	0
11:15 AM	8	38	0	1	1	2	3	0	9	64	12	0	7	6	2	0
11:30 AM	5	55	1	0	2	3	3	0	9	83	14	0	17	3	4	0
11:45 AM	8	49	4	0	1	0	8	0	4	62	6	0	16	3	5	0
12:00 PM	8	60	1	0	1	4	7	0	7	89	8	0	19	5	5	0
12:15 PM	4	66	3	0	4	1	0	0	21	56	12	0	9	8	7	0
12:30 PM	6	54	4	0	5	2	6	0	12	82	11	0	20	6	5	0
12:45 PM	10	60	1	0	2	4	4	0	18	79	13	0	12	1	9	0
1:00 PM	5	66	5	0	1	1	7	0	13	75	14	0	14	5	7	0
1:15 PM	5	77	0	0	3	1	3	0	10	84	10	0	14	3	3	0
1:30 PM	5	59	3	0	0	5	1	0	14	70	10	0	24	5	2	0
1:45 PM	10	56	1	0	1	3	2	0	14	79	6	0	13	3	3	0
2:00 PM	8	60	1	0	0	3	2	0	6	60	12	0	18	4	4	0
2:15 PM	5	65	4	0	3	3	4	0	17	62	10	0	19	3	3	0
2:30 PM	3	64	3	0	1	2	3	0	19	68	14	0	24	9	5	0
2:45 PM	4	69	3	0	2	2	7	0	13	83	20	0	10	4	7	0
3:00 PM	9	62	3	0	3	2	5	0	11	56	9	0	17	5	3	0
3:15 PM	3	64	2	0	2	8	4	0	16	72	10	0	15	8	6	0
3:30 PM	4	70	0	0	1	1	2	0	11	67	13	0	14	8	6	0
3:45 PM	7	67	3	0	7	3	3	0	20	84	15	0	17	6	8	0
4:00 PM	8	83	4	0	3	3	4	0	17	89	13	0	30	2	8	0
4:15 PM	6	91	3	0	4	0	9	0	14	85	15	0	31	6	7	0
4:30 PM	9	99	2	0	2	1	5	0	14	101	11	0	18	5	8	0
4:45 PM	8	95	6	0	1	4	6	0	23	99	9	0	19	4	6	0
5:00 PM	6	131	3	0	5	4	5	0	22	100	13	0	61	8	1	0
5:15 PM	6	97	2	0	5	6	6	0	24	85	15	0	17	9	6	0
5:30 PM	7	91	2	0	4	6	6	0	13	81	20	0	26	6	7	0
5:45 PM	2	72	4	0	2	4	8	0	18	86	15	0	20	2	4	0

Study Name **Location 37 Front St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Baraga Ave Westbound				Front St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	1	0	0	2	1	1	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0
8:30 AM	0	1	0	0	0	0	1	0	2	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	1	0	1	0	0	2	0	0	2	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:30 AM	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	1	2	0	0	0	0	1	0
10:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	1	0	2	0	1	0	1	0
10:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	2	1	0	0	0	0	0	0	3	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	2	0	0	0	0	0	2	0
11:45 AM	0	3	0	0	0	0	0	0	0	2	1	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	1	3	0	0	0	0	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0
12:30 PM	0	0	0	0	1	0	0	0	1	2	1	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	2	0	0	0	0	0	0	0	1	2	0	1	0	0	0
1:15 PM	1	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
1:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:45 PM	0	2	0	0	0	0	0	0	0	1	1	0	0	1	1	0
2:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2:15 PM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 37 Front St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Baraga Ave Westbound				Front St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0
7:00 AM	0	1	1	0	0	0	0	0	0	1	1	0	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0
9:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
10:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
11:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:00 PM	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
1:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0
2:00 PM	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 37 Front St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Baraga Ave Crossing East Leg	Front St Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	1	0
7:00 AM	0	1	0	0
7:15 AM	1	2	0	0
7:30 AM	0	0	0	1
7:45 AM	0	1	0	0
8:00 AM	1	0	1	1
8:15 AM	3	1	0	0
8:30 AM	3	0	0	6
8:45 AM	2	3	0	3
9:00 AM	0	1	0	0
9:15 AM	0	4	0	1
9:30 AM	2	2	1	2
9:45 AM	1	1	0	0
10:00 AM	0	3	0	0
10:15 AM	5	2	1	0
10:30 AM	0	4	0	0
10:45 AM	0	0	1	0
11:00 AM	1	5	2	2
11:15 AM	1	4	3	1
11:30 AM	0	1	1	0
11:45 AM	1	2	2	1
12:00 PM	0	2	2	3
12:15 PM	1	2	2	2
12:30 PM	2	4	0	3
12:45 PM	1	0	0	1
1:00 PM	1	4	4	1
1:15 PM	2	2	0	2
1:30 PM	2	1	0	3
1:45 PM	2	1	0	1
2:00 PM	2	0	0	0
2:15 PM	1	2	0	3
2:30 PM	0	1	2	3
2:45 PM	3	2	4	1
3:00 PM	2	3	2	1
3:15 PM	3	0	1	6
3:30 PM	1	2	1	2
3:45 PM	1	3	0	0
4:00 PM	1	3	1	0
4:15 PM	1	2	1	5
4:30 PM	3	3	0	1
4:45 PM	0	2	1	0
5:00 PM	2	2	0	2
5:15 PM	0	3	1	2
5:30 PM	1	2	2	2
5:45 PM	2	0	0	1

Study Name **Location 37 Front St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Baraga Ave Crossing East Leg	Front St Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	1
6:30 AM	0	0	0	0
6:45 AM	1	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	1
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	1	1
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	1	0	0	2
4:45 PM	0	0	0	0
5:00 PM	1	0	0	1
5:15 PM	0	0	0	0
5:30 PM	0	0	0	2
5:45 PM	1	1	0	0

Study Name **Location 37 Front St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Baraga Ave Westbound				Front St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	11	0	0	0	0	2	0	2	24	4	0	1	0	0	0
6:15 AM	1	19	0	0	0	0	2	0	3	38	6	0	1	3	0	0
6:30 AM	1	19	0	0	1	1	1	0	9	53	9	0	4	1	0	0
6:45 AM	0	23	1	0	0	0	3	0	8	68	17	0	6	0	1	0
7:00 AM	0	23	1	0	2	2	0	0	7	58	8	0	5	3	4	0
7:15 AM	3	46	0	0	0	3	2	0	12	64	8	0	5	2	1	0
7:30 AM	1	53	0	0	3	1	6	0	16	73	20	0	5	2	1	0
7:45 AM	3	50	1	0	1	3	4	0	15	102	41	0	15	4	2	0
8:00 AM	4	38	1	0	4	1	2	0	18	81	20	0	6	3	0	0
8:15 AM	1	25	1	0	2	2	7	0	13	64	18	0	11	3	0	0
8:30 AM	6	35	2	0	2	2	5	0	20	88	13	0	8	3	0	0
8:45 AM	3	37	2	0	4	3	1	0	23	97	14	0	4	3	4	0
9:00 AM	2	34	3	0	2	3	3	0	11	69	10	0	14	3	1	0
9:15 AM	4	24	1	0	5	0	1	0	6	51	14	0	4	3	0	0
9:30 AM	3	42	1	0	2	2	4	0	13	74	22	0	8	5	4	0
9:45 AM	4	53	2	0	2	1	0	0	15	84	21	0	6	1	9	0
10:00 AM	8	44	1	0	3	6	1	0	9	68	18	0	15	3	0	0
10:15 AM	4	38	3	0	1	4	2	0	7	51	16	0	14	4	5	0
10:30 AM	8	46	4	0	5	5	4	0	10	56	13	0	15	2	4	0
10:45 AM	5	42	4	0	2	2	2	0	9	69	15	0	9	2	6	0
11:00 AM	6	38	4	0	1	2	8	0	13	55	11	0	5	4	2	0
11:15 AM	8	38	0	1	1	2	3	0	9	67	12	0	7	6	2	0
11:30 AM	5	56	1	0	2	3	3	0	11	84	14	0	17	3	6	0
11:45 AM	8	52	4	0	1	0	8	0	4	64	7	0	17	3	5	0
12:00 PM	8	60	2	0	2	4	7	0	8	93	9	0	19	5	5	0
12:15 PM	4	67	3	0	4	1	0	0	21	58	12	0	9	8	8	0
12:30 PM	6	54	4	0	6	2	6	0	13	84	12	0	21	6	5	0
12:45 PM	10	61	1	0	2	4	4	0	18	81	14	0	12	1	9	0
1:00 PM	5	68	6	0	1	1	7	0	13	76	16	0	15	5	7	0
1:15 PM	6	78	0	0	3	1	3	0	10	85	10	0	15	3	3	0
1:30 PM	5	61	3	0	0	5	1	0	14	70	10	0	24	6	2	0
1:45 PM	10	58	1	0	1	3	2	0	15	80	8	0	14	4	4	0
2:00 PM	8	61	1	0	0	3	4	0	7	60	13	0	18	4	4	0
2:15 PM	6	65	4	0	3	3	4	0	18	64	10	0	19	3	3	0
2:30 PM	3	65	3	0	1	2	3	0	20	69	14	0	24	9	5	0
2:45 PM	4	71	3	0	2	2	7	0	13	83	20	0	10	4	7	0
3:00 PM	9	64	4	0	3	2	6	0	11	57	9	0	18	5	3	0
3:15 PM	3	66	2	0	2	8	4	0	17	73	10	0	15	8	6	0
3:30 PM	4	71	0	0	1	1	2	0	11	68	13	0	14	8	6	0
3:45 PM	7	67	3	0	7	3	3	0	20	86	15	0	17	6	8	0
4:00 PM	8	84	5	0	3	3	4	0	18	91	15	0	30	2	8	0
4:15 PM	6	92	3	0	4	0	10	0	14	88	15	0	31	6	7	0
4:30 PM	9	102	2	0	2	1	5	0	14	101	11	0	18	5	8	0
4:45 PM	8	95	6	0	1	4	6	0	23	99	9	0	19	4	6	0
5:00 PM	6	131	4	0	5	4	5	0	22	100	14	0	62	8	1	0
5:15 PM	6	97	2	0	5	6	6	0	24	86	15	0	17	9	6	0
5:30 PM	7	92	2	0	4	6	7	0	13	82	20	0	27	6	7	0
5:45 PM	2	73	4	0	2	4	8	0	18	86	15	0	20	2	4	0

Study Name **Location 38 Front St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound			Spring St Westbound			Front St Northbound			Spring St Eastbound		
Start Time	Right	Thru	U-Turn	Right	Thru	Left	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	1	13	0	1	0	0	26	0	0	0	0	0
6:15 AM	2	17	0	1	1	1	44	1	0	0	0	0
6:30 AM	2	19	0	0	0	0	47	3	0	1	0	0
6:45 AM	1	26	0	0	1	1	64	4	0	0	0	0
7:00 AM	0	24	0	0	2	2	62	4	0	0	0	0
7:15 AM	2	47	0	0	3	3	55	7	0	0	0	0
7:30 AM	6	47	0	1	3	6	78	3	0	0	0	0
7:45 AM	5	51	0	1	3	2	91	13	0	0	0	0
8:00 AM	4	36	0	1	1	2	71	5	0	0	0	0
8:15 AM	5	26	0	7	3	3	64	2	0	0	0	0
8:30 AM	5	32	0	2	2	7	86	6	0	0	0	0
8:45 AM	6	39	0	2	3	1	81	9	0	0	0	0
9:00 AM	3	35	0	1	3	2	62	3	0	0	0	0
9:15 AM	6	36	0	0	3	2	50	2	0	0	0	0
9:30 AM	8	39	0	1	1	6	78	7	0	0	0	0
9:45 AM	9	56	0	0	2	2	79	13	0	1	0	0
10:00 AM	6	47	1	1	2	3	67	4	0	0	0	0
10:15 AM	9	45	0	0	2	4	51	2	0	0	0	0
10:30 AM	4	46	0	1	1	3	59	15	0	0	0	0
10:45 AM	8	47	0	2	4	4	58	5	0	0	0	0
11:00 AM	9	39	0	4	3	4	54	5	0	0	0	0
11:15 AM	8	45	0	4	5	5	65	9	0	0	0	0
11:30 AM	12	56	0	1	6	6	70	9	0	0	0	0
11:45 AM	8	65	0	4	3	7	66	7	0	0	0	0
12:00 PM	16	57	0	8	1	10	92	9	0	0	0	0
12:15 PM	8	68	0	1	4	1	62	6	0	0	0	0
12:30 PM	7	52	0	4	5	10	80	8	0	0	0	0
12:45 PM	14	76	0	5	5	10	79	12	0	0	0	0
1:00 PM	8	62	0	4	5	7	76	15	0	0	0	0
1:15 PM	12	78	0	5	1	3	70	9	0	0	0	0
1:30 PM	8	58	0	4	9	9	73	8	0	0	0	0
1:45 PM	13	63	0	4	8	6	67	12	0	0	0	0
2:00 PM	11	56	0	4	12	8	62	7	0	0	0	0
2:15 PM	6	73	0	5	8	10	63	3	0	0	0	0
2:30 PM	10	64	0	2	3	12	64	4	0	0	0	0
2:45 PM	11	55	0	4	5	9	83	11	0	0	0	0
3:00 PM	10	70	0	8	3	2	62	7	0	0	0	0
3:15 PM	11	65	0	9	6	4	75	5	0	0	0	0
3:30 PM	7	68	0	5	4	8	76	7	0	0	0	0
3:45 PM	16	74	0	2	4	4	81	7	0	0	0	0
4:00 PM	13	89	0	2	7	7	97	12	0	0	0	0
4:15 PM	10	89	0	5	2	12	88	3	0	1	0	0
4:30 PM	10	103	0	2	3	7	108	12	0	0	0	0
4:45 PM	6	97	0	3	4	14	92	8	0	0	0	0
5:00 PM	11	121	0	10	5	19	101	7	0	0	0	0
5:15 PM	9	98	0	2	2	8	96	3	0	0	0	0
5:30 PM	7	88	0	2	3	7	87	5	0	0	0	0
5:45 PM	4	61	0	5	2	12	80	5	0	0	0	0

Study Name **Location 38 Front St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound			Spring St Westbound			Front St Northbound			Spring St Eastbound		
Start Time	Right	Thru	U-Turn	Right	Thru	Left	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0
7:30 AM	0	1	0	0	0	1	3	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	1	1	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	1	2	0	0	0	0
9:15 AM	0	1	0	0	0	0	2	0	0	0	0	0
9:30 AM	0	1	0	0	0	1	2	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	3	1	0	0	0	0
10:00 AM	0	0	0	1	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	2	0	0	0	0
10:45 AM	0	4	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	5	0	0	0	0	0
11:15 AM	1	0	0	0	0	1	1	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	3	1	0	0	0	0
11:45 AM	0	3	0	0	0	0	1	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	3	1	0	0	0	0
12:15 PM	0	1	0	0	0	0	3	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	5	0	0	0	0	0
12:45 PM	1	1	0	0	0	0	1	0	0	0	0	0
1:00 PM	0	2	0	0	1	0	1	0	0	0	0	0
1:15 PM	0	2	0	0	0	0	0	0	0	0	0	0
1:30 PM	1	2	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	2	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	2	0	0	0	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	1	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	3	0	0	1	1	1	0	0	0	0	0
3:15 PM	0	0	0	0	2	0	1	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	1	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	2	0	1	0	0	1	1	0	0	0	0
4:30 PM	0	2	0	0	1	0	0	0	0	0	0	0
4:45 PM	1	0	0	0	0	0	1	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:15 PM	1	0	0	0	0	0	1	0	0	0	0	0
5:30 PM	0	2	0	0	0	0	0	1	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0

Study Name **Location 38 Front St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound			Spring St Westbound			Front St Northbound			Spring St Eastbound		
Start Time	Right	Thru	U-Turn	Right	Thru	Left	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	3	0	0	0	0	0
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	2	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	1	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	1	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	1	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	1	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 38 Front St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Spring St Crossing East Leg	Front St Crossing South Leg	Spring St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	1	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	1	0	0
7:00 AM	0	0	0	0
7:15 AM	2	0	1	1
7:30 AM	1	1	0	1
7:45 AM	1	1	1	1
8:00 AM	0	0	0	0
8:15 AM	0	2	0	0
8:30 AM	0	1	0	2
8:45 AM	0	1	1	1
9:00 AM	0	1	0	3
9:15 AM	0	5	1	2
9:30 AM	1	3	2	2
9:45 AM	3	3	1	1
10:00 AM	0	2	1	2
10:15 AM	0	0	1	4
10:30 AM	0	1	2	2
10:45 AM	1	6	0	2
11:00 AM	2	4	0	5
11:15 AM	1	6	2	3
11:30 AM	3	0	1	1
11:45 AM	0	0	6	3
12:00 PM	2	4	3	3
12:15 PM	1	1	1	4
12:30 PM	5	11	1	12
12:45 PM	2	6	9	8
1:00 PM	2	4	2	3
1:15 PM	0	6	3	5
1:30 PM	1	5	2	6
1:45 PM	0	4	2	1
2:00 PM	2	2	0	2
2:15 PM	0	5	3	5
2:30 PM	2	4	5	6
2:45 PM	2	4	5	4
3:00 PM	3	5	2	8
3:15 PM	4	3	1	4
3:30 PM	4	3	2	1
3:45 PM	3	3	1	1
4:00 PM	1	0	1	1
4:15 PM	2	1	1	9
4:30 PM	8	6	1	1
4:45 PM	7	11	3	3
5:00 PM	1	5	0	3
5:15 PM	2	4	0	2
5:30 PM	5	9	3	5
5:45 PM	3	4	1	4

Study Name **Location 38 Front St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Spring St Crossing East Leg	Front St Crossing South Leg	Spring St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	1	0	0	0
6:45 AM	1	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	1	0	0
10:00 AM	2	0	0	1
10:15 AM	1	0	0	0
10:30 AM	3	0	0	0
10:45 AM	0	1	0	1
11:00 AM	1	0	0	0
11:15 AM	0	0	0	0
11:30 AM	7	0	1	1
11:45 AM	1	1	1	0
12:00 PM	0	0	0	0
12:15 PM	1	0	0	1
12:30 PM	0	0	0	2
12:45 PM	0	0	0	0
1:00 PM	1	0	0	0
1:15 PM	1	0	0	0
1:30 PM	0	0	0	0
1:45 PM	1	0	0	0
2:00 PM	3	0	0	0
2:15 PM	0	1	0	0
2:30 PM	2	0	1	1
2:45 PM	2	0	0	1
3:00 PM	1	0	0	0
3:15 PM	1	0	0	0
3:30 PM	3	0	0	1
3:45 PM	4	0	0	0
4:00 PM	1	0	0	0
4:15 PM	0	1	0	0
4:30 PM	6	0	0	0
4:45 PM	2	0	0	0
5:00 PM	1	0	0	1
5:15 PM	1	0	1	1
5:30 PM	3	0	0	1
5:45 PM	0	0	0	0

Study Name **Location 38 Front St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound			Spring St Westbound			Front St Northbound			Spring St Eastbound		
Start Time	Right	Thru	U-Turn	Right	Thru	Left	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	1	14	0	1	0	0	26	0	0	0	0	0
6:15 AM	2	19	0	1	1	1	44	1	0	0	0	0
6:30 AM	2	19	0	0	0	0	47	3	0	1	0	0
6:45 AM	1	26	0	0	1	1	67	4	0	0	0	0
7:00 AM	0	26	0	0	2	2	63	4	0	0	0	0
7:15 AM	2	47	0	0	3	3	57	7	0	0	0	0
7:30 AM	6	48	0	1	3	7	82	3	0	0	0	0
7:45 AM	6	51	0	1	3	2	91	13	0	0	0	0
8:00 AM	4	38	0	2	2	2	72	5	0	0	0	0
8:15 AM	5	26	0	7	3	3	64	2	0	0	0	0
8:30 AM	5	33	0	2	2	9	86	6	0	0	0	0
8:45 AM	6	40	0	2	3	1	81	9	0	0	0	0
9:00 AM	3	36	0	1	4	2	63	5	0	0	0	0
9:15 AM	6	37	0	0	3	2	52	2	0	0	0	0
9:30 AM	8	40	0	1	1	7	80	7	0	0	0	0
9:45 AM	9	58	0	0	2	2	82	15	0	1	0	0
10:00 AM	6	48	1	2	2	3	67	4	0	0	0	0
10:15 AM	9	45	0	0	2	4	51	2	0	0	0	0
10:30 AM	4	48	0	1	1	3	59	17	0	0	0	0
10:45 AM	8	51	0	2	4	4	58	5	0	0	0	0
11:00 AM	9	41	0	4	3	4	59	5	0	0	0	0
11:15 AM	9	45	0	4	5	6	66	10	0	0	0	0
11:30 AM	12	57	0	1	6	6	73	10	0	0	0	0
11:45 AM	8	68	0	4	3	7	67	7	0	0	0	0
12:00 PM	16	58	0	8	1	10	96	10	0	0	0	0
12:15 PM	8	69	0	1	4	1	65	6	0	0	0	0
12:30 PM	7	52	0	4	5	10	85	8	0	0	0	0
12:45 PM	15	77	0	5	5	10	80	12	0	0	0	0
1:00 PM	8	65	0	4	6	7	77	15	0	0	0	0
1:15 PM	12	80	0	5	1	3	70	9	0	0	0	0
1:30 PM	9	60	0	4	9	10	73	8	0	0	0	0
1:45 PM	13	64	0	4	8	6	69	12	0	0	0	0
2:00 PM	11	58	0	4	12	8	64	7	0	0	0	0
2:15 PM	6	73	0	5	8	11	63	3	0	0	0	0
2:30 PM	10	66	0	2	3	12	65	4	0	0	0	0
2:45 PM	11	56	0	4	5	9	83	11	0	0	0	0
3:00 PM	10	74	0	8	4	3	63	7	0	0	0	0
3:15 PM	11	65	0	9	8	4	76	5	0	0	0	0
3:30 PM	7	69	0	5	4	8	77	7	0	0	0	0
3:45 PM	16	74	0	2	4	4	82	8	0	0	0	0
4:00 PM	13	90	0	2	7	7	98	12	0	0	0	0
4:15 PM	10	91	0	6	2	12	90	4	0	1	0	0
4:30 PM	10	106	0	2	4	7	108	12	0	0	0	0
4:45 PM	7	97	0	3	4	14	93	8	0	0	0	0
5:00 PM	11	122	0	10	6	19	101	7	0	0	0	0
5:15 PM	10	98	0	2	2	8	97	3	0	0	0	0
5:30 PM	7	91	0	2	3	7	87	6	0	0	0	0
5:45 PM	4	62	0	5	2	12	80	5	0	0	0	0

Study Name **Location 39 3rd St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Baraga Ave Westbound				3rd St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	2	0	2	2	0	0	0	2	0	0	0	0	0	0
6:15 AM	0	3	0	0	0	4	0	0	1	4	0	0	1	1	0	0
6:30 AM	0	8	0	0	6	4	0	0	2	13	2	0	1	1	0	0
6:45 AM	3	7	5	0	6	7	1	0	2	14	0	0	0	3	0	0
7:00 AM	0	6	3	0	1	4	0	0	1	14	0	0	3	5	1	0
7:15 AM	1	16	5	0	6	4	0	0	1	31	2	0	1	2	0	0
7:30 AM	3	15	6	0	16	10	1	0	2	29	1	0	0	4	2	0
7:45 AM	3	23	8	0	24	14	0	0	5	50	5	0	0	8	4	0
8:00 AM	2	18	3	0	8	9	1	0	0	31	1	0	1	4	0	0
8:15 AM	1	17	7	0	9	7	1	0	1	14	2	0	0	3	1	0
8:30 AM	2	20	8	0	12	8	1	0	2	26	1	0	0	4	2	0
8:45 AM	3	17	5	0	5	10	1	0	5	34	3	0	1	5	1	0
9:00 AM	0	17	7	0	5	9	1	0	2	27	2	0	0	7	2	0
9:15 AM	9	23	9	0	11	6	1	0	2	15	1	0	2	6	0	0
9:30 AM	5	19	4	0	3	3	1	0	2	16	3	0	4	6	2	0
9:45 AM	13	11	0	0	3	0	0	0	1	10	2	0	6	0	1	0
10:00 AM	3	24	12	0	9	12	0	0	1	17	2	0	3	8	6	0
10:15 AM	4	27	14	0	7	11	0	0	2	14	5	0	1	8	1	0
10:30 AM	3	24	11	0	11	10	2	0	3	18	3	0	3	5	5	0
10:45 AM	4	35	9	0	8	10	3	0	2	22	4	0	0	5	1	0
11:00 AM	4	30	9	0	7	13	2	0	2	19	2	0	0	8	2	0
11:15 AM	3	33	9	0	6	14	3	0	3	20	1	0	3	14	5	0
11:30 AM	7	40	13	0	10	15	1	0	5	27	1	0	3	11	4	0
11:45 AM	2	33	12	0	10	7	1	0	3	26	2	0	0	13	2	0
12:00 PM	4	43	16	0	3	7	3	0	3	25	0	0	3	13	2	0
12:15 PM	2	30	11	0	10	5	2	0	2	19	2	0	1	10	0	0
12:30 PM	7	32	12	0	9	9	0	0	2	25	0	0	2	10	5	0
12:45 PM	6	34	16	0	9	16	1	0	4	38	4	0	2	8	2	0
1:00 PM	2	41	9	0	10	6	3	0	6	29	3	0	6	12	2	0
1:15 PM	5	25	13	0	4	12	1	0	6	21	1	0	3	8	4	1
1:30 PM	6	42	14	0	9	8	1	0	3	14	0	0	3	15	3	0
1:45 PM	1	44	15	0	4	8	1	0	0	34	2	0	0	10	2	0
2:00 PM	4	44	12	0	11	9	0	0	2	23	4	0	0	8	3	0
2:15 PM	5	39	23	0	19	6	0	0	6	22	2	0	1	19	1	0
2:30 PM	5	59	14	0	10	9	0	0	3	21	3	0	0	9	2	0
2:45 PM	6	33	15	0	15	12	0	0	3	32	1	0	1	10	5	0
3:00 PM	7	38	17	0	6	8	3	0	4	33	1	0	1	13	2	1
3:15 PM	5	45	23	0	11	9	0	0	3	22	2	0	0	5	5	0
3:30 PM	4	44	10	0	7	5	2	0	5	28	1	0	1	14	5	0
3:45 PM	1	52	16	0	9	11	5	0	4	31	4	0	5	11	0	0
4:00 PM	7	44	18	0	7	14	3	0	4	32	0	0	2	9	1	0
4:15 PM	2	43	22	0	10	11	0	0	6	20	0	0	0	17	0	0
4:30 PM	5	47	13	0	4	13	2	0	4	39	3	0	5	11	3	0
4:45 PM	5	38	19	0	10	11	2	0	4	40	1	0	3	16	3	0
5:00 PM	3	72	36	0	11	5	3	0	7	37	0	0	3	15	9	0
5:15 PM	0	51	20	0	14	7	2	0	3	39	0	0	1	9	2	0
5:30 PM	6	51	16	0	12	14	1	0	4	34	1	0	1	11	0	0
5:45 PM	1	45	17	0	15	7	4	0	6	25	4	0	4	16	2	0

Study Name **Location 39 3rd St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Baraga Ave Westbound				3rd St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0
7:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	2	0	0	0	1	1	0	0	0	0	0	1	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
9:00 AM	0	1	1	0	0	0	0	0	0	1	0	0	1	2	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:30 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
9:45 AM	0	1	0	0	1	0	0	0	1	1	0	0	1	0	0	1
10:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0
10:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
11:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:15 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
1:15 PM	0	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0
1:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
4:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	3rd St Southbound				Baraga Ave Westbound				3rd St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
	2	22	15	0	7	3	3	0	3	21	2	0	15	6	1	1

East Leg
West Leg
North Leg
South Leg

Study Name **Location 39 3rd St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Baraga Ave Westbound				3rd St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 39 3rd St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Baraga Ave Crossing East Leg	3rd St Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	1
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	1
7:30 AM	1	3	1	1
7:45 AM	1	5	1	0
8:00 AM	1	0	2	0
8:15 AM	0	0	0	2
8:30 AM	1	2	2	0
8:45 AM	0	4	1	1
9:00 AM	0	2	1	3
9:15 AM	0	0	0	1
9:30 AM	0	0	0	3
9:45 AM	0	0	0	3
10:00 AM	3	1	3	1
10:15 AM	5	3	0	0
10:30 AM	1	0	0	0
10:45 AM	0	1	3	3
11:00 AM	2	3	1	1
11:15 AM	1	3	0	0
11:30 AM	1	0	2	2
11:45 AM	1	0	6	4
12:00 PM	0	0	0	0
12:15 PM	1	1	3	2
12:30 PM	0	0	0	1
12:45 PM	0	4	2	2
1:00 PM	1	0	3	0
1:15 PM	0	3	2	1
1:30 PM	2	0	1	0
1:45 PM	1	1	3	1
2:00 PM	0	2	0	0
2:15 PM	2	1	0	0
2:30 PM	2	2	3	1
2:45 PM	3	3	0	2
3:00 PM	5	3	0	1
3:15 PM	1	2	0	3
3:30 PM	5	1	0	4
3:45 PM	1	1	0	2
4:00 PM	0	2	0	3
4:15 PM	1	2	1	1
4:30 PM	0	0	1	0
4:45 PM	0	0	4	1
5:00 PM	1	3	1	1
5:15 PM	2	1	1	1
5:30 PM	0	3	2	2
5:45 PM	0	2	0	1

Study Name **Location 39 3rd St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Baraga Ave Crossing East Leg	3rd St Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	1	0	0
7:30 AM	0	1	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	1
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	1	1
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	1
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	1	0	0
12:30 PM	1	0	0	0
12:45 PM	1	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	1
3:30 PM	0	0	0	0
3:45 PM	0	1	0	0
4:00 PM	0	0	0	0
4:15 PM	0	1	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	0	0	0
5:15 PM	0	0	0	1
5:30 PM	0	0	0	0
5:45 PM	0	2	0	0

Study Name **Location 39 3rd St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Baraga Ave Westbound				3rd St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	2	0	2	2	0	0	0	3	0	0	0	0	0	0
6:15 AM	0	3	0	0	0	4	0	0	1	4	0	0	2	1	0	0
6:30 AM	0	8	0	0	7	4	0	0	2	13	2	0	1	2	0	0
6:45 AM	3	7	6	0	6	7	1	0	2	15	0	0	0	3	0	0
7:00 AM	0	6	5	0	3	4	0	0	1	15	0	0	4	5	1	0
7:15 AM	1	17	6	0	6	4	0	0	1	31	2	0	1	2	0	0
7:30 AM	3	15	7	0	16	10	2	0	2	29	2	0	1	4	2	0
7:45 AM	3	24	9	0	24	14	0	0	5	51	5	0	0	8	4	0
8:00 AM	2	20	3	0	9	10	2	0	0	31	1	0	2	4	0	0
8:15 AM	1	17	8	0	9	7	1	0	1	14	2	0	0	3	1	0
8:30 AM	2	20	8	0	12	8	1	0	2	27	1	0	0	4	2	0
8:45 AM	3	17	5	0	6	10	1	0	5	35	3	0	2	6	1	0
9:00 AM	0	18	8	0	5	9	1	0	2	28	2	0	1	9	2	0
9:15 AM	9	23	9	0	11	6	1	0	2	15	1	0	2	6	1	0
9:30 AM	5	20	6	0	3	3	1	0	2	17	3	0	4	6	2	0
9:45 AM	13	12	0	0	4	0	0	0	2	11	2	0	7	0	1	1
10:00 AM	3	25	15	0	9	12	0	0	1	17	2	0	4	8	6	0
10:15 AM	4	29	14	0	7	12	0	0	2	14	5	0	1	8	1	0
10:30 AM	3	24	12	0	13	10	2	0	3	19	3	0	3	5	5	0
10:45 AM	4	38	9	0	9	10	3	0	2	25	4	0	0	5	1	0
11:00 AM	4	31	9	0	7	13	2	0	2	19	3	0	1	8	2	0
11:15 AM	3	33	9	0	6	14	3	0	3	21	1	0	3	15	5	0
11:30 AM	7	40	15	0	10	15	1	0	5	27	1	0	3	11	4	0
11:45 AM	2	36	13	0	10	7	1	0	3	27	2	0	0	13	2	0
12:00 PM	4	44	16	0	4	7	3	0	3	25	0	0	4	13	2	0
12:15 PM	2	31	11	0	10	5	2	0	3	19	2	0	1	10	0	0
12:30 PM	7	32	13	0	10	9	0	0	2	25	0	0	2	10	5	0
12:45 PM	6	34	17	0	11	16	1	0	4	39	4	0	2	8	2	0
1:00 PM	2	41	9	0	10	6	3	0	6	30	3	0	7	12	2	0
1:15 PM	5	25	14	0	4	12	2	0	7	22	1	0	3	8	4	1
1:30 PM	7	42	14	0	9	8	1	0	3	14	0	0	3	15	3	0
1:45 PM	1	44	17	0	5	8	1	0	0	34	2	0	0	10	2	0
2:00 PM	4	44	12	0	12	9	0	0	2	23	4	0	1	8	3	0
2:15 PM	5	39	23	0	19	7	0	0	6	22	2	0	1	19	1	0
2:30 PM	5	60	14	0	10	9	0	0	4	21	3	0	0	9	2	0
2:45 PM	6	34	15	0	15	12	0	0	3	34	1	0	1	10	5	0
3:00 PM	7	40	17	0	7	8	3	0	4	33	1	0	2	14	2	1
3:15 PM	5	46	23	0	11	9	0	0	3	22	2	0	0	5	5	0
3:30 PM	4	46	10	0	7	5	2	0	5	29	1	0	1	14	5	0
3:45 PM	1	52	16	0	10	11	5	0	4	31	4	0	5	11	0	0
4:00 PM	7	44	18	0	7	15	3	0	4	33	0	0	3	9	1	0
4:15 PM	2	43	23	0	11	11	0	0	6	20	0	0	0	17	0	0
4:30 PM	5	47	13	0	4	13	2	0	4	39	3	0	5	11	3	0
4:45 PM	5	40	19	0	11	11	2	0	4	41	1	0	3	16	3	0
5:00 PM	3	72	36	0	11	5	3	0	7	37	0	0	4	16	9	0
5:15 PM	1	51	20	0	14	7	2	0	3	39	0	0	1	9	2	0
5:30 PM	6	51	17	0	12	14	1	0	4	34	1	0	1	11	0	0
5:45 PM	1	45	17	0	15	7	4	0	6	25	4	0	4	16	2	0

Study Name **Location 40 4th St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Baraga Ave Westbound				4th St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	0	0	1	2	0	0	1	4	1	0	0	0	0	0
6:15 AM	0	3	0	0	1	3	0	0	0	7	1	0	1	3	0	0
6:30 AM	3	4	0	0	5	2	0	0	2	25	1	0	0	2	0	0
6:45 AM	0	8	0	0	5	7	0	0	0	24	1	0	0	3	0	0
7:00 AM	2	12	2	0	0	3	0	0	2	20	1	0	1	4	0	0
7:15 AM	3	24	1	0	2	5	1	0	0	25	3	0	1	1	1	0
7:30 AM	8	22	6	0	11	6	1	0	3	44	7	0	0	2	3	0
7:45 AM	2	21	2	0	11	8	3	0	4	40	11	0	0	7	2	0
8:00 AM	1	15	3	0	3	4	3	0	2	17	1	0	0	4	2	0
8:15 AM	2	10	2	0	4	8	0	0	2	18	0	0	1	1	2	0
8:30 AM	3	15	4	0	3	9	1	0	2	24	0	0	2	4	3	0
8:45 AM	1	13	2	0	6	7	0	0	3	24	2	0	3	3	1	0
9:00 AM	2	18	2	0	6	5	0	0	0	11	0	0	0	8	1	0
9:15 AM	3	8	6	0	4	7	0	0	3	18	3	0	0	7	1	0
9:30 AM	4	16	3	0	6	4	0	0	5	33	2	0	4	6	2	0
9:45 AM	4	12	10	0	8	7	0	0	0	21	0	0	0	8	3	0
10:00 AM	3	16	7	0	7	11	3	0	3	16	1	0	0	5	3	0
10:15 AM	4	17	4	0	10	6	3	0	6	7	1	0	2	6	2	0
10:30 AM	2	13	4	0	12	9	2	0	0	14	1	0	1	5	2	0
10:45 AM	3	23	4	0	6	11	0	0	4	10	1	0	0	9	2	0
11:00 AM	0	15	4	0	12	11	5	0	3	18	1	0	0	11	4	0
11:15 AM	3	18	8	0	16	12	2	0	2	12	2	0	1	9	1	0
11:30 AM	3	24	3	0	5	11	3	0	4	21	3	0	0	7	0	0
11:45 AM	6	36	6	0	5	7	1	0	3	20	2	0	3	9	4	0
12:00 PM	3	36	8	0	4	8	1	0	2	17	1	0	0	10	4	0
12:15 PM	2	29	4	0	6	2	2	0	2	14	0	0	1	8	3	0
12:30 PM	2	22	4	0	11	13	1	0	4	19	0	0	0	9	3	0
12:45 PM	5	20	11	0	10	11	4	0	2	24	1	0	1	10	1	0
1:00 PM	7	35	7	0	5	9	2	0	4	22	2	0	3	8	3	0
1:15 PM	8	21	13	0	12	10	3	0	5	20	1	0	1	14	1	0
1:30 PM	8	24	8	0	7	8	5	0	5	26	4	0	1	7	3	0
1:45 PM	4	18	10	0	10	9	1	0	3	22	1	0	2	2	3	0
2:00 PM	6	36	9	0	7	8	4	0	2	11	0	0	1	11	3	0
2:15 PM	6	47	10	0	9	7	4	0	5	20	1	0	3	5	3	0
2:30 PM	3	26	9	0	10	8	4	0	1	34	1	0	2	8	5	0
2:45 PM	6	29	5	0	10	8	0	0	5	20	6	0	3	12	2	0
3:00 PM	5	27	12	0	4	12	3	0	2	15	2	0	0	4	2	0
3:15 PM	11	28	3	0	6	7	5	0	4	19	6	0	0	8	6	0
3:30 PM	7	49	9	0	7	9	0	0	2	15	2	0	2	11	4	0
3:45 PM	7	53	7	0	11	11	4	0	4	18	1	0	3	10	5	0
4:00 PM	6	39	4	0	15	9	2	0	4	16	0	0	6	10	4	0
4:15 PM	0	46	9	0	10	12	4	0	3	22	3	0	4	10	2	0
4:30 PM	3	31	4	0	6	12	2	0	6	26	2	0	0	14	3	0
4:45 PM	3	43	12	0	6	8	3	0	1	18	3	0	3	10	1	0
5:00 PM	3	55	10	0	2	8	1	0	1	20	2	0	5	11	3	0
5:15 PM	5	39	7	0	5	9	2	0	0	17	1	0	0	3	0	0
5:30 PM	4	32	8	0	4	10	1	0	4	19	0	0	0	8	1	0
5:45 PM	6	25	6	0	4	3	1	0	2	7	1	0	4	9	5	0

Study Name **Location 40 4th St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Baraga Ave Westbound				4th St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	1	0
9:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	1	0	0	0	3	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	2	0	0	1	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	2	0	0	0	0	0	0	1	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 40 4th St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Baraga Ave Westbound				4th St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 40 4th St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Crossing North Leg	Baraga Ave Crossing East Leg	4th St Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	1	0
6:30 AM	0	2	1	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	3	1	0	1
7:30 AM	8	2	1	2
7:45 AM	10	1	0	4
8:00 AM	3	2	3	0
8:15 AM	4	1	1	0
8:30 AM	3	1	1	1
8:45 AM	2	1	1	1
9:00 AM	0	0	0	0
9:15 AM	1	0	0	1
9:30 AM	3	2	1	0
9:45 AM	6	2	1	0
10:00 AM	3	1	1	1
10:15 AM	4	0	0	0
10:30 AM	5	1	0	2
10:45 AM	6	0	0	2
11:00 AM	3	0	0	0
11:15 AM	1	0	1	0
11:30 AM	5	2	0	0
11:45 AM	7	1	1	2
12:00 PM	4	0	1	1
12:15 PM	4	3	0	0
12:30 PM	2	2	0	0
12:45 PM	5	1	1	0
1:00 PM	3	1	0	0
1:15 PM	5	4	1	0
1:30 PM	4	1	2	0
1:45 PM	4	1	1	1
2:00 PM	5	4	0	0
2:15 PM	5	1	3	1
2:30 PM	3	4	0	1
2:45 PM	4	2	0	3
3:00 PM	6	2	2	1
3:15 PM	8	2	0	1
3:30 PM	5	2	0	0
3:45 PM	9	2	1	2
4:00 PM	4	7	6	3
4:15 PM	4	0	2	1
4:30 PM	7	0	1	5
4:45 PM	9	2	0	5
5:00 PM	5	1	1	2
5:15 PM	3	0	1	2
5:30 PM	1	2	3	0
5:45 PM	2	1	0	1

Study Name **Location 40 4th St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Crossing North Leg	Baraga Ave Crossing East Leg	4th St Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	1	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	1	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	1	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	1
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	1	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	1	1	0	1
5:45 PM	0	0	0	0

Study Name **Location 40 4th St & Baraga Ave**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Baraga Ave Westbound				4th St Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	0	0	1	2	0	0	1	4	1	0	0	0	0	0
6:15 AM	0	3	1	0	1	3	0	0	0	7	1	0	1	4	0	0
6:30 AM	3	4	0	0	5	2	0	0	2	25	1	0	0	2	0	0
6:45 AM	0	8	0	0	5	7	0	0	0	24	1	0	0	3	0	0
7:00 AM	2	13	2	0	0	3	0	0	2	20	1	0	1	5	0	0
7:15 AM	3	26	1	0	2	5	1	0	0	25	3	0	1	1	1	0
7:30 AM	8	22	6	0	11	7	1	0	3	45	7	0	0	3	3	0
7:45 AM	2	21	2	0	11	8	3	0	4	41	11	0	0	7	2	0
8:00 AM	2	16	3	0	3	5	3	0	2	17	1	0	0	5	2	0
8:15 AM	2	10	2	0	4	8	0	0	2	18	0	0	1	1	2	0
8:30 AM	3	15	4	0	3	9	1	0	2	24	0	0	2	5	3	0
8:45 AM	1	14	2	0	6	7	0	0	3	24	2	0	3	4	1	0
9:00 AM	2	18	3	0	6	5	0	0	0	11	0	0	0	10	2	0
9:15 AM	3	9	7	0	4	7	0	0	3	18	3	0	0	7	1	0
9:30 AM	4	17	4	0	6	4	0	0	5	34	2	0	4	6	2	0
9:45 AM	5	12	10	0	8	8	0	0	0	24	0	0	0	9	3	0
10:00 AM	3	16	7	0	7	11	3	0	3	16	1	0	0	5	3	0
10:15 AM	4	19	4	0	11	6	3	0	6	8	1	0	2	6	2	0
10:30 AM	2	13	4	0	12	9	2	0	0	14	1	0	1	5	2	0
10:45 AM	3	23	4	0	6	11	0	0	4	10	1	0	0	10	2	0
11:00 AM	0	16	4	0	12	11	5	0	3	18	1	0	0	11	4	0
11:15 AM	4	18	9	0	16	12	2	0	2	12	2	0	1	9	1	0
11:30 AM	3	24	3	0	5	11	3	0	4	21	3	0	0	7	0	0
11:45 AM	6	36	6	0	5	7	1	0	3	21	2	0	3	9	4	0
12:00 PM	3	36	8	0	4	8	1	0	2	18	1	0	0	11	4	0
12:15 PM	2	29	4	0	6	2	2	0	2	14	0	0	1	8	3	0
12:30 PM	2	23	4	0	11	13	1	0	4	19	1	0	0	9	3	0
12:45 PM	5	20	11	0	10	11	4	0	2	24	1	0	1	10	1	0
1:00 PM	7	36	7	0	5	9	2	0	4	22	2	0	3	9	3	0
1:15 PM	8	21	13	0	12	10	3	0	5	20	1	0	1	14	1	0
1:30 PM	8	25	8	0	7	10	5	0	5	26	4	0	2	7	3	0
1:45 PM	4	18	10	0	10	9	1	0	3	23	1	0	2	2	3	0
2:00 PM	6	36	9	0	7	8	4	0	2	11	0	0	1	12	3	0
2:15 PM	6	48	10	0	9	8	4	0	5	20	1	0	3	5	3	0
2:30 PM	3	27	9	0	10	8	4	0	1	34	1	0	2	8	5	0
2:45 PM	6	29	5	0	10	8	0	0	5	22	6	0	3	13	2	0
3:00 PM	5	28	12	0	4	12	3	0	2	15	2	0	0	5	2	0
3:15 PM	11	29	3	0	6	7	5	0	4	19	6	0	0	8	7	0
3:30 PM	7	49	9	0	7	9	0	0	2	15	2	0	2	11	4	0
3:45 PM	7	53	7	0	11	12	4	0	4	18	1	0	3	10	5	0
4:00 PM	6	39	4	0	15	9	2	0	4	16	0	0	6	11	4	0
4:15 PM	0	46	9	0	10	12	4	0	3	22	3	0	4	10	2	0
4:30 PM	3	31	4	0	6	12	2	0	6	26	2	0	0	14	3	0
4:45 PM	3	43	12	0	6	8	3	0	1	18	3	0	3	10	1	0
5:00 PM	3	55	10	0	2	8	1	0	1	20	2	0	5	13	3	0
5:15 PM	5	39	7	0	5	10	2	0	0	17	1	0	0	3	0	0
5:30 PM	4	32	8	0	4	10	1	0	4	19	0	0	0	8	1	0
5:45 PM	6	25	6	0	4	3	1	0	2	7	1	0	4	9	5	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	0	0	1	0	1	0	0	12	0	0	0	0	0	0
6:15 AM	0	8	0	0	0	0	2	0	0	20	1	0	0	0	0	0
6:30 AM	0	11	1	0	5	0	1	0	1	47	0	0	0	0	0	0
6:45 AM	0	14	0	0	4	0	0	0	2	58	1	0	0	0	0	0
7:00 AM	0	20	0	0	6	0	0	0	0	88	0	0	0	0	0	0
7:15 AM	0	35	1	0	2	0	2	0	1	94	0	0	0	0	0	0
7:30 AM	1	49	1	0	4	0	4	0	2	66	1	0	0	0	0	0
7:45 AM	0	34	3	0	12	0	5	0	10	113	2	0	0	0	0	0
8:00 AM	0	22	3	0	5	0	1	0	1	53	1	0	2	0	0	0
8:15 AM	0	19	2	0	2	0	1	0	2	45	0	0	0	0	0	0
8:30 AM	0	20	2	0	5	0	3	0	4	68	0	0	0	0	0	0
8:45 AM	0	32	1	0	9	0	4	0	4	84	0	0	1	0	0	0
9:00 AM	0	22	2	0	2	0	5	0	1	33	0	0	0	0	0	0
9:15 AM	0	21	0	0	3	0	6	0	1	38	0	0	0	1	0	0
9:30 AM	0	22	2	0	5	0	5	0	2	61	0	0	0	1	0	0
9:45 AM	1	28	5	0	5	1	4	0	2	42	0	0	0	0	0	0
10:00 AM	1	37	3	1	4	1	3	0	1	33	0	0	0	1	0	0
10:15 AM	0	25	4	0	2	1	3	0	2	40	0	0	0	0	0	0
10:30 AM	1	23	3	0	6	1	6	0	2	35	0	0	0	0	0	0
10:45 AM	0	33	1	0	8	2	3	0	2	34	0	0	0	1	0	0
11:00 AM	0	31	3	0	4	0	9	0	2	20	0	0	0	0	0	0
11:15 AM	0	28	6	0	5	0	3	0	4	36	1	0	0	0	1	0
11:30 AM	0	27	2	0	12	0	4	0	0	42	0	0	0	0	0	0
11:45 AM	0	51	1	0	11	1	8	0	7	62	0	0	0	0	0	0
12:00 PM	0	64	4	0	8	0	6	0	4	35	0	0	0	0	0	0
12:15 PM	1	45	4	0	9	0	7	0	2	33	0	0	1	0	0	0
12:30 PM	0	40	4	0	8	0	7	0	7	50	0	0	0	0	1	0
12:45 PM	0	43	8	0	6	1	5	0	3	47	0	0	2	0	0	0
1:00 PM	0	55	4	0	4	0	12	0	1	38	0	0	1	0	0	0
1:15 PM	1	43	4	0	3	1	7	0	6	28	0	0	0	0	1	0
1:30 PM	1	43	4	0	7	0	5	0	4	46	0	0	0	0	1	0
1:45 PM	1	46	6	0	1	0	6	0	0	35	0	0	0	0	0	0
2:00 PM	0	34	2	0	5	0	7	0	0	38	0	0	0	1	1	0
2:15 PM	1	32	3	1	8	0	4	0	4	48	1	0	0	0	0	0
2:30 PM	0	63	5	0	4	1	8	0	3	45	1	0	0	0	1	0
2:45 PM	1	62	5	0	5	0	2	0	4	55	0	0	0	0	0	0
3:00 PM	2	41	5	0	6	0	7	0	5	38	0	0	0	0	0	0
3:15 PM	1	40	3	0	5	0	3	0	4	36	0	0	1	0	2	0
3:30 PM	1	68	5	0	11	0	7	0	5	40	0	0	0	1	1	0
3:45 PM	0	75	5	0	4	0	5	0	2	64	0	0	0	0	1	0
4:00 PM	0	75	5	0	8	2	10	0	3	38	0	0	1	2	0	0
4:15 PM	0	72	2	0	8	0	8	0	1	47	1	0	0	0	0	0
4:30 PM	1	78	1	0	8	0	11	0	1	24	1	0	1	0	0	0
4:45 PM	0	80	3	0	7	0	3	0	2	46	0	0	0	0	0	0
5:00 PM	0	103	5	0	5	0	31	0	4	45	0	0	0	1	0	0
5:15 PM	0	66	1	0	10	1	6	0	0	56	0	0	0	0	0	0
5:30 PM	0	63	4	0	1	0	1	0	2	53	0	0	0	1	0	0
5:45 PM	0	50	6	0	4	0	5	0	1	47	0	0	0	0	1	0

Location 41.xls

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	3	0	0	1	0	0	0	1	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Spring St Crossing East Leg	7th St Crossing South Leg	Spring St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	1	1	0	0
7:00 AM	0	1	2	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	1	0	0
8:15 AM	0	0	0	2
8:30 AM	0	0	0	2
8:45 AM	0	0	1	1
9:00 AM	0	1	0	0
9:15 AM	0	1	0	0
9:30 AM	0	0	0	2
9:45 AM	0	0	0	0
10:00 AM	0	1	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	1
10:45 AM	0	0	0	0
11:00 AM	0	0	0	1
11:15 AM	0	0	0	0
11:30 AM	0	2	1	0
11:45 AM	0	0	0	0
12:00 PM	0	2	0	0
12:15 PM	0	2	0	1
12:30 PM	0	0	0	1
12:45 PM	1	2	1	1
1:00 PM	0	0	0	0
1:15 PM	0	1	0	0
1:30 PM	4	3	3	0
1:45 PM	0	0	0	0
2:00 PM	4	0	0	1
2:15 PM	0	0	0	2
2:30 PM	2	1	0	2
2:45 PM	0	1	0	2
3:00 PM	0	2	2	2
3:15 PM	0	2	0	0
3:30 PM	2	1	1	1
3:45 PM	0	4	1	0
4:00 PM	0	3	0	0
4:15 PM	0	0	0	0
4:30 PM	0	3	0	0
4:45 PM	0	2	0	0
5:00 PM	0	1	0	0
5:15 PM	2	0	0	2
5:30 PM	0	9	7	0
5:45 PM	0	4	2	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Spring St Crossing East Leg	7th St Crossing South Leg	Spring St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	1	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	1
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	3	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	2	1	0
1:45 PM	0	1	0	0
2:00 PM	0	2	1	0
2:15 PM	0	3	0	1
2:30 PM	0	3	0	0
2:45 PM	1	1	0	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	1
3:45 PM	0	1	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	0	1
4:45 PM	0	0	0	1
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	7	0	0	1	0	1	0	0	13	0	0	0	0	0	0
6:15 AM	0	8	0	0	0	0	2	0	0	20	1	0	0	0	0	0
6:30 AM	0	11	1	0	5	0	1	0	1	47	0	0	0	0	0	0
6:45 AM	0	14	0	0	4	0	0	0	2	59	1	0	0	0	0	0
7:00 AM	0	21	0	0	7	0	0	0	0	90	0	0	0	0	0	0
7:15 AM	0	41	1	0	2	0	2	0	1	96	0	0	0	0	0	0
7:30 AM	1	51	1	0	4	0	4	0	2	66	1	0	0	0	0	0
7:45 AM	0	35	3	0	12	0	5	0	10	116	2	0	0	0	0	0
8:00 AM	0	22	3	0	5	0	1	0	1	54	1	0	2	0	0	0
8:15 AM	0	20	2	0	2	0	1	0	2	47	0	0	0	0	0	0
8:30 AM	0	20	2	0	5	0	3	0	4	69	0	0	0	0	0	0
8:45 AM	0	32	1	0	9	0	4	0	4	84	0	0	1	0	0	0
9:00 AM	0	24	2	0	2	0	5	0	1	34	0	0	0	0	0	0
9:15 AM	0	24	0	0	3	0	6	0	1	39	0	0	0	1	0	0
9:30 AM	0	22	2	0	5	0	5	0	2	62	0	0	0	1	0	0
9:45 AM	1	30	5	0	5	1	4	0	2	43	0	0	0	0	0	0
10:00 AM	1	37	4	1	4	1	3	0	1	34	0	0	0	1	0	0
10:15 AM	0	29	4	0	2	1	3	0	2	44	0	0	0	0	0	0
10:30 AM	1	26	3	0	6	1	6	0	2	36	0	0	0	0	0	0
10:45 AM	0	34	1	0	9	2	3	0	2	34	0	0	0	1	0	0
11:00 AM	0	33	3	0	4	0	9	0	2	21	0	0	0	0	0	0
11:15 AM	0	30	6	0	5	0	3	0	4	36	1	0	0	0	1	0
11:30 AM	0	27	2	0	12	0	4	0	0	43	0	0	0	0	0	0
11:45 AM	0	51	1	0	11	1	8	0	7	62	0	0	0	0	0	0
12:00 PM	0	64	4	0	8	0	6	0	4	36	0	0	0	0	0	0
12:15 PM	1	47	4	0	10	0	7	0	2	34	0	0	1	0	0	0
12:30 PM	0	42	4	0	8	0	7	0	7	51	0	0	0	0	1	0
12:45 PM	0	44	8	0	6	1	5	0	3	47	0	0	2	0	0	0
1:00 PM	0	57	4	0	4	0	12	0	1	40	0	0	1	0	0	0
1:15 PM	1	45	4	0	4	1	7	0	6	28	0	0	0	0	1	0
1:30 PM	1	44	4	0	8	0	5	0	4	47	0	0	0	0	1	0
1:45 PM	1	48	6	0	1	0	6	0	0	35	0	0	0	0	0	0
2:00 PM	0	36	2	0	5	0	7	0	0	38	0	0	0	1	1	0
2:15 PM	1	34	3	1	8	0	4	0	4	49	1	0	0	0	0	0
2:30 PM	0	70	5	0	4	1	8	0	3	45	1	0	0	0	1	0
2:45 PM	1	62	5	0	5	0	2	0	4	56	0	0	0	0	0	0
3:00 PM	2	41	5	0	6	0	7	0	5	39	0	0	0	0	0	0
3:15 PM	1	41	3	0	5	0	3	0	4	36	0	0	1	0	2	0
3:30 PM	1	68	5	0	11	0	8	0	5	41	0	0	0	1	1	0
3:45 PM	0	75	5	0	5	0	5	0	2	65	0	0	0	0	1	0
4:00 PM	0	76	5	0	9	2	11	0	3	39	0	0	1	2	0	0
4:15 PM	0	76	2	0	9	0	8	0	2	48	1	0	0	0	0	0
4:30 PM	1	78	1	0	8	0	11	0	1	25	1	0	1	0	0	0
4:45 PM	0	80	3	0	7	0	3	0	2	48	0	0	0	0	0	0
5:00 PM	0	104	5	0	5	0	31	0	4	48	0	0	0	1	0	0
5:15 PM	0	67	1	0	10	1	6	0	0	56	0	0	0	0	0	0
5:30 PM	0	64	4	0	1	0	1	0	2	54	0	0	0	1	0	0
5:45 PM	0	51	6	0	4	0	5	0	1	47	0	0	0	0	1	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	5	0	0	0	1	0	0	0	7	2	0	0	0	1	0
6:15 AM	6	3	0	0	1	2	0	0	0	22	7	0	0	3	2	0
6:30 AM	2	12	0	0	1	1	1	0	0	49	1	0	4	0	1	0
6:45 AM	2	12	0	0	0	3	0	0	0	55	2	0	0	3	1	0
7:00 AM	1	20	1	0	1	2	0	0	0	93	2	0	0	6	3	0
7:15 AM	5	33	0	0	0	3	1	0	0	83	5	0	9	1	2	0
7:30 AM	4	43	2	0	4	6	1	0	2	72	9	0	6	7	2	0
7:45 AM	8	30	1	0	1	6	0	0	2	109	4	0	12	10	4	0
8:00 AM	7	16	3	0	0	7	1	0	2	46	7	0	6	6	1	0
8:15 AM	1	19	2	0	1	2	0	0	0	42	5	0	1	3	4	0
8:30 AM	4	18	2	0	5	8	1	0	0	71	3	0	2	1	6	0
8:45 AM	6	32	3	0	3	6	1	0	0	71	3	0	9	2	4	0
9:00 AM	2	23	0	0	0	8	1	0	2	30	1	0	3	6	5	0
9:15 AM	2	23	2	0	3	8	1	0	2	39	2	0	9	7	1	0
9:30 AM	3	20	1	0	4	6	0	0	2	55	6	0	7	4	3	0
9:45 AM	5	29	2	0	3	3	1	0	1	35	4	0	8	10	2	0
10:00 AM	5	32	2	0	2	4	2	0	1	28	5	0	3	5	2	0
10:15 AM	2	22	0	0	2	8	1	0	0	35	3	0	6	4	5	0
10:30 AM	7	19	1	0	0	6	0	0	0	34	6	0	2	2	3	0
10:45 AM	2	34	3	0	1	6	3	0	2	26	4	0	2	3	6	0
11:00 AM	5	35	1	0	1	8	4	0	0	21	4	0	12	7	2	0
11:15 AM	5	21	0	0	4	10	1	0	2	30	0	0	5	8	7	0
11:30 AM	3	30	1	0	2	6	3	0	0	42	2	0	5	5	1	0
11:45 AM	6	44	7	0	6	8	4	0	0	51	3	0	4	6	10	0
12:00 PM	9	59	2	0	1	5	3	0	2	35	5	0	9	10	3	0
12:15 PM	7	36	6	0	1	9	1	0	0	37	5	0	12	6	3	0
12:30 PM	2	44	0	0	4	5	1	0	4	43	4	0	4	9	5	0
12:45 PM	6	42	7	0	4	7	4	0	0	41	4	0	9	7	2	0
1:00 PM	5	57	1	0	1	7	0	0	1	34	4	0	10	8	3	0
1:15 PM	10	38	4	0	2	9	3	0	1	29	5	0	3	6	4	0
1:30 PM	4	38	2	0	3	5	2	0	1	46	0	0	12	10	2	0
1:45 PM	6	45	1	0	1	8	2	0	0	26	1	0	9	8	3	0
2:00 PM	4	34	4	0	1	9	2	0	1	38	7	0	6	9	2	0
2:15 PM	0	36	1	0	5	2	2	0	1	42	5	0	14	9	7	0
2:30 PM	8	61	0	0	4	6	2	0	2	34	3	0	15	7	8	0
2:45 PM	4	57	5	0	2	8	4	0	1	54	5	0	14	9	2	0
3:00 PM	5	41	3	0	0	10	2	0	1	41	6	0	8	5	1	0
3:15 PM	2	43	2	0	0	9	1	0	0	37	5	0	3	10	2	0
3:30 PM	6	64	3	0	3	11	0	0	1	43	6	0	7	8	3	0
3:45 PM	5	72	6	0	3	7	1	0	2	56	2	0	2	8	6	0
4:00 PM	3	80	3	0	3	10	3	0	1	29	4	0	14	8	5	0
4:15 PM	6	73	2	0	0	11	1	0	1	40	3	0	11	7	9	0
4:30 PM	4	77	6	0	5	5	4	0	0	21	6	0	8	15	4	0
4:45 PM	2	74	6	0	3	9	4	0	1	43	2	0	9	6	2	0
5:00 PM	8	117	4	0	0	8	6	0	1	47	3	0	13	13	4	0
5:15 PM	4	68	0	0	4	3	1	0	0	47	1	0	17	3	1	0
5:30 PM	0	70	1	0	4	10	2	0	2	57	4	0	13	2	1	0
5:45 PM	3	42	4	0	0	5	0	0	1	41	1	0	7	6	5	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
9:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:45 AM	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
11:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	2	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
1:15 PM	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
1:45 PM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
4:00 PM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Spring St Crossing East Leg	7th St Crossing South Leg	Spring St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	1	1	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	2	3	0	2
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	2	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	1
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	2	0
10:30 AM	0	0	0	1
10:45 AM	1	1	0	2
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	1	0	1	2
11:45 AM	0	0	0	0
12:00 PM	0	3	0	0
12:15 PM	0	2	0	0
12:30 PM	0	1	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	1	0
1:15 PM	0	0	0	3
1:30 PM	0	1	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	1
2:30 PM	1	1	0	1
2:45 PM	0	2	0	2
3:00 PM	0	2	0	0
3:15 PM	0	2	1	1
3:30 PM	0	3	0	1
3:45 PM	0	2	0	0
4:00 PM	0	1	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	1	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	4
5:45 PM	0	2	0	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Spring St Crossing East Leg	7th St Crossing South Leg	Spring St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	2	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	1	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	1
2:30 PM	0	2	0	0
2:45 PM	0	1	0	1
3:00 PM	0	0	0	0
3:15 PM	0	1	0	0
3:30 PM	0	0	0	0
3:45 PM	0	1	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	1	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	6	0	0	0	1	0	0	0	8	2	0	0	0	1	0
6:15 AM	6	3	0	0	1	2	0	0	0	22	7	0	0	3	2	0
6:30 AM	2	12	0	0	1	1	1	0	0	49	1	0	4	0	1	0
6:45 AM	2	12	0	0	0	3	0	0	0	56	2	0	0	3	1	0
7:00 AM	1	20	2	0	1	2	0	0	0	95	2	0	0	6	3	0
7:15 AM	5	39	0	0	0	3	1	0	0	83	5	0	9	1	5	0
7:30 AM	4	45	2	0	4	6	2	0	2	72	9	0	6	7	2	0
7:45 AM	8	31	1	0	1	6	0	0	2	111	4	0	12	10	5	0
8:00 AM	7	16	3	0	0	8	1	0	2	47	7	0	6	6	1	0
8:15 AM	1	20	2	0	1	2	0	0	0	44	5	0	1	3	4	0
8:30 AM	4	18	2	0	5	8	1	0	0	72	3	0	4	1	6	0
8:45 AM	6	32	3	0	3	6	1	0	0	71	3	0	9	2	4	0
9:00 AM	3	24	0	0	0	8	1	0	3	31	1	0	3	6	5	0
9:15 AM	2	26	2	0	3	8	1	0	2	40	2	0	9	7	1	0
9:30 AM	3	20	1	0	4	6	0	0	2	56	6	0	7	4	3	0
9:45 AM	6	30	2	0	3	4	1	0	1	36	4	0	8	10	2	0
10:00 AM	5	33	2	0	2	4	2	0	1	29	5	0	3	5	2	0
10:15 AM	2	25	0	0	2	8	1	0	0	37	3	0	6	4	7	0
10:30 AM	7	22	1	0	0	6	0	0	0	35	6	0	2	2	3	0
10:45 AM	3	34	3	0	1	6	3	0	3	26	4	0	2	3	6	0
11:00 AM	6	36	1	0	1	8	4	0	0	21	4	0	12	7	3	0
11:15 AM	5	23	0	0	4	10	1	0	2	30	1	0	5	8	8	0
11:30 AM	3	30	1	0	2	6	3	0	0	42	2	0	5	5	1	0
11:45 AM	6	44	7	0	6	8	4	0	0	51	3	0	4	6	10	0
12:00 PM	9	59	2	0	1	5	3	0	2	36	5	0	9	10	3	0
12:15 PM	8	38	6	0	1	9	1	0	1	38	5	0	12	6	3	0
12:30 PM	2	46	0	0	4	5	1	0	4	43	4	0	4	9	6	0
12:45 PM	6	42	7	0	4	7	4	0	0	41	4	0	9	7	2	0
1:00 PM	7	57	1	0	1	7	0	0	1	36	4	0	12	8	3	0
1:15 PM	11	40	4	0	2	9	4	0	1	29	5	0	3	7	4	0
1:30 PM	4	39	2	0	3	5	2	0	1	47	0	0	12	11	2	0
1:45 PM	7	47	1	0	1	8	2	0	0	26	1	0	9	8	3	0
2:00 PM	4	35	4	0	1	9	2	0	1	38	7	0	6	9	2	0
2:15 PM	0	38	1	0	5	3	2	0	1	43	5	0	14	9	7	0
2:30 PM	8	68	0	0	4	6	2	0	2	34	3	0	15	7	8	0
2:45 PM	4	57	5	0	2	8	4	0	1	54	5	0	14	10	3	0
3:00 PM	5	41	3	0	0	10	2	0	1	42	6	0	8	5	1	0
3:15 PM	2	44	2	0	0	9	1	0	0	37	5	0	3	10	2	0
3:30 PM	6	64	4	0	3	11	0	0	1	44	6	0	7	8	3	0
3:45 PM	5	72	6	0	3	7	1	0	2	57	2	0	2	9	6	0
4:00 PM	4	82	3	0	3	10	4	0	1	30	4	0	14	8	5	0
4:15 PM	6	76	2	0	0	11	1	0	1	41	3	0	11	7	10	0
4:30 PM	4	77	6	0	5	5	4	0	0	22	6	0	8	15	4	0
4:45 PM	2	74	6	0	3	9	4	0	1	45	3	0	9	6	2	0
5:00 PM	8	119	4	0	0	8	6	0	1	49	4	0	13	13	5	0
5:15 PM	4	69	0	0	4	3	1	0	0	47	1	0	17	3	1	0
5:30 PM	0	71	1	0	4	10	2	0	2	58	4	0	13	2	1	0
5:45 PM	3	43	4	0	0	5	0	0	1	41	1	0	7	6	5	0

Study Name **Location 43 Front St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Fisher St Westbound				Front St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	15	0	0	0	0	0	0	0	29	1	0	2	0	0	0
6:15 AM	0	19	0	0	0	0	0	0	0	49	2	0	2	0	0	0
6:30 AM	0	22	0	0	0	0	0	0	0	72	10	0	5	0	1	0
6:45 AM	0	31	0	0	0	0	0	0	0	94	10	0	3	0	1	0
7:00 AM	1	29	0	0	1	0	0	0	0	66	8	0	0	0	0	0
7:15 AM	0	52	1	0	1	0	0	0	0	90	14	0	13	0	0	0
7:30 AM	5	54	0	0	0	0	0	0	0	117	16	0	6	0	2	0
7:45 AM	5	62	0	0	0	0	0	0	1	163	31	0	13	1	1	0
8:00 AM	2	42	1	0	0	0	0	0	0	107	7	0	10	2	4	0
8:15 AM	1	39	0	0	0	0	0	0	0	91	5	0	11	0	0	0
8:30 AM	2	36	0	0	0	0	0	0	0	113	8	0	10	0	0	0
8:45 AM	1	45	0	0	0	0	0	0	1	122	8	0	13	0	5	0
9:00 AM	3	46	0	0	0	0	0	0	0	88	4	0	11	0	1	0
9:15 AM	1	32	0	0	0	0	0	0	0	74	4	2	8	0	2	0
9:30 AM	0	50	0	0	0	0	0	0	0	89	6	0	4	0	4	0
9:45 AM	1	63	0	0	0	0	0	0	0	114	5	0	14	0	2	0
10:00 AM	5	58	0	0	0	0	0	0	0	86	3	0	12	0	4	0
10:15 AM	4	54	0	0	0	0	0	0	0	73	5	0	13	0	2	0
10:30 AM	1	65	0	0	0	0	0	0	0	77	5	0	13	0	1	0
10:45 AM	5	52	0	0	0	0	0	0	0	86	3	0	11	1	4	0
11:00 AM	1	50	0	0	0	0	0	0	0	72	5	0	11	0	5	0
11:15 AM	1	46	0	0	0	0	0	0	0	87	3	0	13	1	1	0
11:30 AM	1	81	0	0	0	0	0	0	0	91	5	0	18	1	2	0
11:45 AM	6	73	0	0	0	0	0	0	0	71	8	0	24	0	1	0
12:00 PM	3	94	0	0	0	0	0	0	0	106	3	0	14	0	4	0
12:15 PM	1	81	1	0	0	0	0	0	1	94	4	0	16	0	0	0
12:30 PM	3	84	0	0	0	0	0	0	0	92	2	0	16	0	4	0
12:45 PM	3	87	0	0	0	0	0	0	0	113	10	0	12	0	3	0
1:00 PM	3	87	0	0	0	0	0	0	1	102	9	0	12	0	3	0
1:15 PM	4	90	0	0	0	0	0	0	1	100	7	0	15	0	2	0
1:30 PM	3	86	2	0	0	0	0	0	0	97	4	0	25	0	2	0
1:45 PM	3	72	0	0	0	0	0	0	0	94	7	0	14	0	2	0
2:00 PM	2	82	0	0	0	0	0	0	0	76	15	0	18	1	2	0
2:15 PM	9	84	0	0	0	0	0	0	0	95	9	0	16	0	3	0
2:30 PM	5	93	0	0	0	0	0	0	0	90	9	0	21	0	2	0
2:45 PM	7	81	0	0	0	0	0	0	0	112	5	0	19	0	4	0
3:00 PM	5	85	0	0	0	0	0	0	0	82	9	0	18	0	0	0
3:15 PM	6	82	0	0	0	0	0	0	0	96	3	0	29	0	2	0
3:30 PM	4	84	0	0	0	0	0	0	0	95	4	0	38	0	0	0
3:45 PM	4	96	0	0	1	0	0	0	0	110	9	0	31	0	2	0
4:00 PM	3	122	0	0	0	0	0	0	0	121	6	0	25	0	2	0
4:15 PM	7	133	1	0	1	0	0	0	0	117	7	0	28	0	1	0
4:30 PM	3	129	0	0	0	0	0	0	0	138	11	0	33	0	0	0
4:45 PM	5	117	0	0	0	0	0	0	0	121	11	0	21	0	4	0
5:00 PM	7	203	1	0	0	0	0	0	0	124	5	0	34	0	3	0
5:15 PM	4	121	0	0	0	0	0	0	0	120	5	0	27	0	1	0
5:30 PM	7	123	0	0	0	0	0	0	0	115	4	0	32	0	1	0
5:45 PM	3	105	0	0	0	0	0	0	0	117	7	0	18	0	3	0
6:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	2	0	0	0

Study Name **Location 43 Front St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Fisher St Westbound				Front St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
8:15 AM	0	4	0	0	0	0	0	0	0	1	0	0	1	0	0	0
8:30 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:00 AM	0	4	0	0	0	0	0	0	0	2	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:45 AM	1	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
10:30 AM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0
10:45 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	2	0	0	0	0	0	0	0	2	0	0	1	0	0	0
11:15 AM	0	1	0	0	0	0	0	0	0	3	0	0	1	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:45 AM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:00 PM	0	2	0	0	0	0	0	0	0	4	0	0	1	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0
12:45 PM	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:00 PM	1	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:00 PM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 43 Front St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Fisher St Westbound				Front St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
7:00 AM	0	2	0	0	0	0	0	0	0	2	0	0	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 43 Front St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Fisher St Crossing East Leg	Front St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	1
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	1
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	1
3:15 PM	0	0	0	0
3:30 PM	0	0	0	1
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	1	2
4:30 PM	0	0	0	2
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
6:00 PM	0	0	0	0

Study Name **Location 43 Front St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Fisher St Crossing East Leg	Front St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	1	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	1
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
6:00 PM	0	0	0	0

Study Name **Location 43 Front St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Fisher St Westbound				Front St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	15	0	0	0	0	0	0	0	30	1	0	2	0	0	0
6:15 AM	0	21	0	0	0	0	0	0	0	49	2	0	2	0	0	0
6:30 AM	0	23	0	0	0	0	0	0	0	73	10	0	5	0	1	0
6:45 AM	0	32	0	0	0	0	0	0	0	99	10	0	3	0	1	0
7:00 AM	1	31	0	0	1	0	0	0	0	68	8	0	1	0	0	0
7:15 AM	0	53	1	0	1	0	0	0	0	93	14	0	15	0	0	0
7:30 AM	6	55	0	0	0	0	0	0	0	120	16	0	6	0	2	0
7:45 AM	5	64	0	0	0	0	0	0	1	165	31	0	13	1	1	0
8:00 AM	2	43	1	0	0	0	0	0	0	112	7	0	10	2	4	0
8:15 AM	1	43	0	0	0	0	0	0	0	92	5	0	12	0	0	0
8:30 AM	2	40	0	0	0	0	0	0	0	115	8	0	10	0	0	0
8:45 AM	2	45	0	0	0	0	0	0	1	126	8	0	13	0	5	0
9:00 AM	3	50	0	0	0	0	0	0	0	90	4	0	12	0	1	0
9:15 AM	1	32	0	0	0	0	0	0	0	76	5	2	8	0	2	0
9:30 AM	0	51	0	0	0	0	0	0	0	91	6	0	4	0	4	0
9:45 AM	2	65	0	0	0	0	0	0	0	121	5	0	14	0	2	0
10:00 AM	5	59	0	0	0	0	0	0	0	87	3	0	12	0	4	0
10:15 AM	4	56	0	0	0	0	0	0	0	74	5	0	14	0	2	0
10:30 AM	1	68	0	0	0	0	0	0	0	81	5	0	13	0	1	0
10:45 AM	5	55	0	0	0	0	0	0	0	87	3	0	11	1	4	0
11:00 AM	1	52	0	0	0	0	0	0	0	74	5	0	12	0	5	0
11:15 AM	1	47	0	0	0	0	0	0	0	90	3	0	14	1	1	0
11:30 AM	1	82	0	0	0	0	0	0	0	94	5	0	18	1	2	0
11:45 AM	6	78	0	0	0	0	0	0	0	73	8	0	25	0	1	0
12:00 PM	3	96	0	0	0	0	0	0	0	111	3	0	15	0	4	0
12:15 PM	1	81	1	0	0	0	0	0	1	96	4	0	16	0	0	0
12:30 PM	3	85	0	0	0	0	0	0	0	97	3	0	16	0	4	0
12:45 PM	4	88	0	0	0	0	0	0	0	118	10	0	12	0	3	0
1:00 PM	4	89	0	0	0	0	0	0	1	104	9	0	12	0	3	0
1:15 PM	4	92	0	0	0	0	0	0	1	100	7	0	15	0	2	0
1:30 PM	3	88	2	0	0	0	0	0	0	98	4	0	25	0	2	0
1:45 PM	3	75	0	0	0	0	0	0	0	98	7	0	14	0	2	0
2:00 PM	2	84	0	0	0	0	0	0	0	79	15	0	18	1	2	0
2:15 PM	9	84	0	0	0	0	0	0	0	97	9	0	16	0	3	0
2:30 PM	5	94	0	0	0	0	0	0	0	93	9	0	21	0	2	0
2:45 PM	7	83	0	0	0	0	0	0	0	112	5	0	20	0	4	0
3:00 PM	5	89	0	0	0	0	0	0	0	86	9	0	18	0	0	0
3:15 PM	6	84	0	0	0	0	0	0	0	98	3	0	30	0	2	0
3:30 PM	4	85	0	0	0	0	0	0	0	97	4	0	38	0	1	0
3:45 PM	4	96	0	0	1	0	0	0	0	113	9	0	31	0	2	0
4:00 PM	3	122	0	0	0	0	0	0	0	124	6	0	25	0	3	0
4:15 PM	7	135	1	0	1	0	0	0	0	121	7	0	28	0	1	0
4:30 PM	3	132	0	0	0	0	0	0	0	138	11	0	34	0	0	0
4:45 PM	5	118	0	0	0	0	0	0	0	123	11	0	21	0	4	0
5:00 PM	7	205	1	0	0	0	0	0	0	125	5	0	35	0	3	0
5:15 PM	4	121	0	0	0	0	0	0	0	121	5	0	27	0	1	0
5:30 PM	7	126	0	0	0	0	0	0	0	116	4	0	33	0	1	0
5:45 PM	3	106	0	0	0	0	0	0	0	117	7	0	18	0	3	0
6:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	2	0	0	0

Study Name **Location 44 3rd St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Fisher St Westbound				3rd St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	1	0	2	6	0	0	0	0	0	0	0	2	2	0
6:15 AM	2	0	2	0	6	3	0	0	0	0	0	0	0	2	0	0
6:30 AM	3	0	3	0	8	16	0	0	0	0	0	0	0	5	2	0
6:45 AM	3	0	4	0	14	20	0	0	0	0	1	0	0	2	3	0
7:00 AM	1	0	6	0	13	12	1	0	0	0	0	0	0	3	5	0
7:15 AM	2	0	13	0	19	17	0	0	1	1	0	0	0	16	6	0
7:30 AM	4	0	12	0	28	28	0	0	0	0	2	0	0	20	9	0
7:45 AM	9	0	14	0	52	46	0	0	1	0	0	0	1	9	12	0
8:00 AM	5	0	10	0	22	9	0	0	0	0	4	0	0	15	7	0
8:15 AM	8	1	11	0	14	12	0	0	0	1	0	0	0	6	2	0
8:30 AM	7	0	15	0	17	11	0	0	0	2	1	0	0	12	10	0
8:45 AM	4	0	8	0	23	12	1	0	0	1	0	0	1	15	11	0
9:00 AM	7	0	8	0	14	11	1	0	1	0	0	0	0	11	10	0
9:15 AM	13	0	13	0	12	6	0	0	0	1	1	0	0	10	6	0
9:30 AM	1	1	11	0	24	12	0	0	0	0	1	0	0	11	16	0
9:45 AM	1	0	8	0	15	9	0	0	0	0	2	0	1	23	11	0
10:00 AM	12	0	7	0	15	14	0	0	1	0	0	0	0	11	4	0
10:15 AM	8	0	20	0	10	8	0	0	0	0	0	0	0	12	8	0
10:30 AM	8	1	18	0	9	9	0	0	0	2	0	0	0	9	8	0
10:45 AM	11	0	23	0	21	12	0	0	0	0	0	0	0	12	8	0
11:00 AM	14	0	16	0	12	11	0	0	0	0	1	0	0	16	8	0
11:15 AM	16	0	20	0	10	9	0	0	0	0	0	0	0	11	11	0
11:30 AM	15	0	22	0	14	9	1	0	0	2	0	0	0	17	16	0
11:45 AM	6	0	25	0	14	15	1	0	0	5	0	0	0	23	11	0
12:00 PM	14	0	30	0	12	11	0	0	0	1	1	0	2	17	8	0
12:15 PM	15	0	15	0	12	9	0	0	0	1	1	0	2	18	8	0
12:30 PM	14	1	19	0	16	7	1	0	0	1	3	0	0	23	10	0
12:45 PM	11	0	19	0	25	13	0	0	0	4	1	0	1	9	14	0
1:00 PM	18	0	22	0	23	12	0	0	0	0	0	0	0	16	13	0
1:15 PM	15	0	14	0	18	14	0	0	0	1	2	0	0	24	7	0
1:30 PM	13	0	25	0	12	15	0	0	0	0	1	0	0	23	6	0
1:45 PM	22	0	20	0	15	15	0	0	0	2	0	0	0	12	10	0
2:00 PM	16	0	25	0	15	19	0	0	0	1	0	0	0	17	10	0
2:15 PM	13	2	17	0	16	19	0	0	0	2	0	0	0	24	10	0
2:30 PM	20	0	34	0	14	17	0	0	1	0	0	0	0	26	8	0
2:45 PM	17	1	14	0	18	9	1	0	0	2	1	0	0	16	19	0
3:00 PM	19	0	25	0	8	11	0	0	0	1	1	0	0	28	16	0
3:15 PM	6	0	34	0	15	17	0	0	0	0	0	0	0	23	10	0
3:30 PM	13	0	30	0	21	9	0	0	0	1	0	0	2	24	16	0
3:45 PM	17	1	38	0	19	17	1	0	1	1	1	0	0	29	10	0
4:00 PM	12	1	30	0	19	10	0	0	1	0	2	0	2	33	11	0
4:15 PM	13	0	28	0	16	16	1	0	0	0	0	0	1	35	7	0
4:30 PM	13	0	38	0	22	7	0	0	2	0	2	0	0	25	16	0
4:45 PM	12	1	33	0	31	13	0	0	2	1	0	0	0	30	13	0
5:00 PM	14	0	56	0	21	13	0	0	2	3	0	0	0	42	13	0
5:15 PM	17	1	36	0	18	9	0	0	3	2	0	0	0	30	16	0
5:30 PM	12	0	37	0	16	10	1	0	0	1	0	0	0	26	18	0
5:45 PM	14	3	32	0	16	7	0	0	2	1	0	0	0	23	14	0

Study Name **Location 44 3rd St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Fisher St Westbound				3rd St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	2	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
9:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0
10:00 AM	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
10:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
11:45 AM	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0
12:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0
1:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
3:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 44 3rd St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Fisher St Westbound				3rd St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 44 3rd St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Fisher St Crossing East Leg	3rd St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	1	0	0	3
6:45 AM	0	0	1	0
7:00 AM	0	0	0	0
7:15 AM	0	0	1	1
7:30 AM	0	0	0	0
7:45 AM	0	3	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	2	0	0
8:45 AM	0	0	0	0
9:00 AM	0	2	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	1
10:00 AM	1	0	1	0
10:15 AM	1	0	0	2
10:30 AM	0	0	0	0
10:45 AM	0	0	0	1
11:00 AM	0	1	1	0
11:15 AM	0	2	1	0
11:30 AM	0	2	1	0
11:45 AM	1	0	0	0
12:00 PM	0	0	0	0
12:15 PM	2	1	0	0
12:30 PM	1	0	0	1
12:45 PM	1	1	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	2	1	1	0
3:00 PM	0	1	0	1
3:15 PM	0	0	0	0
3:30 PM	0	0	1	0
3:45 PM	0	0	1	0
4:00 PM	0	0	0	2
4:15 PM	0	1	0	0
4:30 PM	1	0	0	0
4:45 PM	0	0	2	0
5:00 PM	0	0	0	0
5:15 PM	0	0	1	1
5:30 PM	0	0	0	2
5:45 PM	0	0	0	0

Study Name **Location 44 3rd St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Fisher St Crossing East Leg	3rd St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	1	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	1	1
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	1	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	1	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	2	1	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	1	0	0

Study Name **Location 44 3rd St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Fisher St Westbound				3rd St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	1	0	2	6	0	0	0	0	0	0	0	2	2	0
6:15 AM	2	0	2	0	6	3	0	0	0	0	0	0	0	2	0	0
6:30 AM	3	0	3	0	8	16	0	0	0	0	0	0	0	5	2	0
6:45 AM	3	0	4	0	14	20	0	0	0	0	1	0	0	2	3	0
7:00 AM	1	0	7	0	13	12	1	0	0	0	0	0	0	4	5	0
7:15 AM	2	0	14	0	19	17	0	0	1	1	0	0	0	17	6	0
7:30 AM	4	0	13	0	29	28	0	0	0	0	2	0	0	20	9	0
7:45 AM	9	0	16	0	53	46	0	0	1	0	0	0	1	9	12	0
8:00 AM	5	0	12	0	22	9	0	0	0	0	4	0	0	15	7	0
8:15 AM	8	1	11	0	14	13	0	0	0	1	0	0	0	7	2	0
8:30 AM	7	0	15	0	18	11	0	0	0	2	1	0	0	12	10	0
8:45 AM	4	0	8	0	23	13	1	0	0	1	0	0	1	15	11	0
9:00 AM	7	0	10	0	14	11	1	0	1	0	0	0	0	13	10	0
9:15 AM	13	0	13	0	12	6	0	0	0	1	1	0	0	10	6	0
9:30 AM	3	1	11	0	24	13	0	0	0	0	1	0	0	11	17	0
9:45 AM	2	0	8	0	15	10	0	0	0	0	2	0	1	23	13	0
10:00 AM	13	0	8	0	15	14	0	0	1	0	1	0	0	11	4	0
10:15 AM	8	0	23	0	10	8	0	0	0	0	0	0	0	12	8	0
10:30 AM	8	1	18	0	10	9	0	0	0	2	0	0	0	10	8	0
10:45 AM	12	0	25	0	23	12	0	0	0	0	0	0	0	12	8	0
11:00 AM	14	0	17	0	13	11	0	0	0	0	1	0	0	16	8	0
11:15 AM	16	0	20	0	11	9	0	0	0	0	0	0	0	12	11	0
11:30 AM	15	0	22	0	14	10	1	0	0	2	1	0	0	17	16	0
11:45 AM	7	0	26	0	16	16	1	0	0	5	0	0	0	23	11	0
12:00 PM	14	0	32	0	12	12	0	0	0	1	1	0	2	17	8	0
12:15 PM	15	0	16	0	12	11	0	0	0	1	1	0	2	18	9	0
12:30 PM	14	1	20	0	16	7	1	0	0	1	3	0	0	23	10	0
12:45 PM	11	0	19	0	26	14	0	0	0	4	1	0	1	9	15	0
1:00 PM	18	0	23	0	23	13	0	0	0	0	0	0	0	16	14	0
1:15 PM	15	0	14	0	18	14	0	0	0	1	2	0	0	24	8	0
1:30 PM	13	0	25	0	12	15	0	0	0	0	1	0	0	23	6	0
1:45 PM	22	0	20	0	15	15	0	0	0	2	0	0	0	12	10	0
2:00 PM	16	0	26	0	15	19	0	0	0	1	0	0	0	17	10	0
2:15 PM	13	2	17	0	16	19	0	0	0	2	0	0	0	25	10	0
2:30 PM	21	0	34	0	14	17	0	0	1	0	0	0	0	27	8	0
2:45 PM	17	1	15	0	19	9	1	0	0	2	1	0	0	16	20	0
3:00 PM	19	0	28	0	8	11	0	0	0	1	1	0	0	28	16	0
3:15 PM	6	0	34	0	15	17	0	0	0	0	0	0	0	24	10	0
3:30 PM	13	0	31	0	21	9	0	0	0	2	0	0	2	24	16	0
3:45 PM	17	1	38	0	19	17	1	0	1	1	1	0	0	29	10	0
4:00 PM	12	1	32	0	19	10	0	0	1	0	2	0	2	35	11	0
4:15 PM	13	0	28	0	16	16	1	0	0	0	0	0	1	36	7	0
4:30 PM	13	0	38	0	22	7	0	0	2	0	2	0	0	26	16	0
4:45 PM	12	1	34	0	32	13	0	0	2	1	0	0	0	30	13	0
5:00 PM	14	0	57	0	21	13	0	0	2	3	0	0	0	42	13	0
5:15 PM	17	1	36	0	18	9	0	0	3	2	0	0	0	30	16	0
5:30 PM	12	0	37	0	16	10	1	0	0	1	0	0	0	27	18	0
5:45 PM	14	3	32	0	16	7	0	0	2	1	0	0	0	23	14	0

Study Name **Location 45 4th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Fisher St Westbound				4th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	0	2	0	1	4	0	0	0	0	0	0	0	1	3	0
6:15 AM	1	0	1	0	1	3	0	0	0	1	0	0	0	2	5	0
6:30 AM	2	0	4	0	6	8	0	0	0	0	0	0	0	2	10	0
6:45 AM	4	0	0	0	19	7	0	0	0	0	0	0	0	4	5	0
7:00 AM	9	0	4	0	15	5	0	0	0	0	0	0	0	5	8	0
7:15 AM	7	2	7	0	10	5	0	0	0	0	0	0	0	14	14	0
7:30 AM	10	0	12	0	14	19	0	0	1	0	0	0	1	15	20	0
7:45 AM	25	1	7	0	16	44	0	0	0	1	2	0	1	14	26	0
8:00 AM	10	2	7	0	4	15	0	0	0	0	0	0	0	19	15	0
8:15 AM	8	0	3	0	6	14	0	0	0	0	0	0	0	3	10	0
8:30 AM	10	0	7	0	8	13	0	0	0	0	1	0	1	13	13	0
8:45 AM	8	0	7	0	11	8	0	0	0	0	0	0	1	21	14	0
9:00 AM	8	0	10	0	6	12	0	0	0	0	0	0	0	12	8	0
9:15 AM	6	2	4	0	2	17	0	0	0	0	0	0	0	9	4	0
9:30 AM	9	1	8	0	6	8	1	0	0	0	0	0	1	17	20	0
9:45 AM	6	0	15	0	5	5	1	0	0	0	0	0	1	24	13	0
10:00 AM	10	0	8	0	3	21	0	0	0	0	0	0	0	9	6	0
10:15 AM	9	0	8	0	5	17	0	0	0	0	0	0	1	10	12	0
10:30 AM	9	0	4	0	4	11	1	0	0	0	0	0	2	14	6	0
10:45 AM	15	0	6	0	5	18	0	0	0	0	2	0	0	13	15	0
11:00 AM	11	2	9	0	8	17	0	0	0	0	0	0	0	16	8	0
11:15 AM	17	0	3	0	2	21	0	0	0	1	0	0	0	17	8	0
11:30 AM	11	0	10	0	5	18	1	0	0	0	0	0	1	26	13	0
11:45 AM	19	1	14	0	5	16	2	0	0	1	0	0	2	16	11	0
12:00 PM	20	2	14	0	2	28	0	0	0	0	0	0	2	17	16	0
12:15 PM	16	1	11	0	4	20	0	0	0	1	1	0	0	17	13	0
12:30 PM	17	0	9	0	4	18	0	0	0	0	0	0	0	26	14	0
12:45 PM	17	1	3	0	6	22	0	0	1	0	1	0	0	20	23	0
1:00 PM	19	2	13	0	6	27	1	0	0	0	0	0	2	13	22	0
1:15 PM	15	0	13	0	6	20	1	0	0	0	2	0	1	18	13	0
1:30 PM	11	1	13	0	10	22	0	0	0	1	0	0	1	17	15	0
1:45 PM	10	0	8	0	5	30	1	0	1	1	0	0	1	13	21	0
2:00 PM	14	1	12	0	9	25	0	0	0	0	1	0	0	15	6	0
2:15 PM	37	0	16	0	3	28	1	0	0	0	1	0	3	18	12	0
2:30 PM	25	0	16	0	11	26	1	0	0	0	1	0	0	16	15	0
2:45 PM	15	0	8	0	3	23	1	0	0	2	0	0	2	27	19	0
3:00 PM	14	2	16	0	6	24	1	0	0	1	1	0	1	28	14	0
3:15 PM	13	0	14	0	8	13	0	0	0	0	0	0	2	17	9	0
3:30 PM	17	0	16	0	6	19	2	0	0	0	0	0	0	24	8	0
3:45 PM	33	0	25	0	10	26	1	0	1	0	0	0	0	14	10	0
4:00 PM	25	1	26	0	5	16	0	0	0	0	0	0	0	20	15	0
4:15 PM	16	1	29	0	7	27	1	0	0	1	0	0	1	15	17	0
4:30 PM	21	2	20	0	2	16	0	0	0	0	1	0	1	24	22	0
4:45 PM	17	0	18	0	4	20	0	0	0	0	1	0	1	23	19	0
5:00 PM	28	0	32	0	9	20	0	0	0	0	1	0	3	20	15	0
5:15 PM	15	1	23	0	5	23	0	0	0	0	0	0	1	27	12	0
5:30 PM	15	0	21	0	5	17	1	0	0	0	0	0	1	21	14	0
5:45 PM	12	0	18	0	1	14	1	0	0	0	0	0	0	22	13	0

Study Name **Location 45 4th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Fisher St Westbound				4th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	1	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0
9:45 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0
10:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
1:00 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 45 4th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Fisher St Westbound				4th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 45 4th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Crossing North Leg	Fisher St Crossing East Leg	4th St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	1	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	2
7:45 AM	0	0	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	1
10:00 AM	0	1	1	1
10:15 AM	0	0	2	0
10:30 AM	0	0	0	0
10:45 AM	0	0	1	0
11:00 AM	0	0	1	1
11:15 AM	0	1	1	0
11:30 AM	0	1	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	1	0
12:45 PM	0	0	0	0
1:00 PM	0	0	1	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	1
2:45 PM	2	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	1	1	0
3:45 PM	0	0	0	2
4:00 PM	0	0	2	0
4:15 PM	2	0	0	1
4:30 PM	0	0	0	0
4:45 PM	1	1	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0

Study Name **Location 45 4th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Crossing North Leg	Fisher St Crossing East Leg	4th St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	1
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	1	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	1	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	1	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	1	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 45 4th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Fisher St Westbound				4th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	0	2	0	1	4	0	0	0	0	0	0	0	1	3	0
6:15 AM	1	0	1	0	1	3	0	0	0	1	0	0	0	2	5	0
6:30 AM	2	0	4	0	6	8	0	0	0	0	0	0	0	2	10	0
6:45 AM	4	0	0	0	19	7	0	0	0	0	0	0	0	4	5	0
7:00 AM	10	0	4	0	15	5	0	0	0	0	0	0	0	5	8	0
7:15 AM	7	2	7	0	10	5	0	0	1	0	0	0	1	15	14	0
7:30 AM	12	0	12	0	14	19	0	0	1	0	0	0	1	15	21	0
7:45 AM	25	1	7	0	16	44	0	0	0	1	2	0	1	14	26	0
8:00 AM	10	2	7	0	4	15	0	0	0	0	0	0	0	19	15	0
8:15 AM	9	0	3	0	7	14	0	0	0	0	0	0	0	4	10	0
8:30 AM	10	0	7	0	8	13	0	0	0	0	1	0	1	13	13	0
8:45 AM	8	0	7	0	11	8	0	0	0	0	0	0	1	21	14	0
9:00 AM	8	0	11	0	6	12	0	0	0	0	0	0	0	13	8	0
9:15 AM	6	2	4	0	2	17	0	0	0	0	0	0	0	9	4	0
9:30 AM	10	1	8	0	6	10	1	0	0	0	0	0	1	18	21	0
9:45 AM	6	0	15	0	6	6	1	0	0	0	0	0	1	25	14	0
10:00 AM	10	0	8	0	3	22	0	0	0	0	0	0	0	9	7	0
10:15 AM	9	0	8	0	5	17	0	0	0	0	0	0	1	10	13	0
10:30 AM	10	0	4	0	4	11	1	0	0	0	0	0	2	14	6	0
10:45 AM	15	0	6	0	5	19	0	0	0	0	2	0	0	13	15	0
11:00 AM	11	2	9	0	8	17	0	0	0	0	0	0	0	16	8	0
11:15 AM	18	0	3	0	2	21	0	0	0	1	0	0	0	18	8	0
11:30 AM	11	0	10	0	5	18	1	0	0	0	0	0	1	26	13	0
11:45 AM	19	1	14	0	5	17	2	0	0	1	0	0	2	16	11	0
12:00 PM	20	2	14	0	3	28	0	0	0	0	0	0	2	17	16	0
12:15 PM	16	1	11	0	4	21	0	0	0	1	1	0	0	18	14	0
12:30 PM	17	0	9	0	4	18	0	0	0	0	0	0	0	26	14	0
12:45 PM	18	1	3	0	6	23	0	0	1	0	1	0	0	21	23	0
1:00 PM	20	2	13	0	6	29	1	0	0	0	0	0	2	14	22	0
1:15 PM	15	0	13	0	6	20	1	0	0	0	2	0	1	19	13	0
1:30 PM	12	2	13	0	10	22	0	0	0	1	0	0	1	17	15	0
1:45 PM	11	0	8	0	5	30	1	0	1	1	0	0	1	13	22	0
2:00 PM	14	1	12	0	9	25	0	0	0	0	1	0	0	15	6	0
2:15 PM	38	0	16	0	3	28	1	0	0	0	1	0	3	18	12	0
2:30 PM	26	0	17	0	11	27	1	0	0	0	1	0	0	16	15	0
2:45 PM	15	0	8	0	3	23	1	0	0	2	0	0	2	28	20	0
3:00 PM	14	2	16	0	6	24	1	0	0	1	1	0	1	28	14	0
3:15 PM	14	0	15	0	8	13	0	0	0	0	0	0	2	17	9	0
3:30 PM	17	0	16	0	6	19	2	0	0	0	0	0	0	24	8	0
3:45 PM	33	0	25	0	10	26	1	0	1	0	0	0	0	14	10	0
4:00 PM	25	1	26	0	5	16	0	0	0	0	0	0	0	22	15	0
4:15 PM	16	1	29	0	7	27	1	0	0	1	0	0	1	16	17	0
4:30 PM	21	2	20	0	2	16	0	0	0	0	1	0	1	24	22	0
4:45 PM	17	0	18	0	4	20	0	0	0	0	1	0	1	23	19	0
5:00 PM	28	0	32	0	9	20	0	0	0	0	1	0	3	20	15	0
5:15 PM	15	1	23	0	5	23	0	0	0	0	0	0	1	27	12	0
5:30 PM	15	0	21	0	5	17	1	0	0	0	0	0	1	22	14	0
5:45 PM	12	0	18	0	1	14	1	0	0	0	0	0	0	22	13	0

Study Name **Location 46 5th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Southbound				Fisher St Westbound				5th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	0	7	0	0	0	0	0	4	4	0	0
6:15 AM	0	0	0	0	1	3	0	0	1	0	0	0	2	6	3	0
6:30 AM	1	0	0	0	3	5	1	0	0	0	0	0	2	11	5	0
6:45 AM	1	0	0	0	1	8	0	0	0	0	0	0	5	9	4	0
7:00 AM	6	0	0	0	1	9	0	0	0	0	0	0	0	12	3	0
7:15 AM	1	2	1	0	1	9	0	0	3	0	2	0	5	26	6	0
7:30 AM	3	1	3	0	0	12	4	0	1	0	0	0	3	38	17	0
7:45 AM	11	1	4	0	6	35	4	0	0	0	1	0	2	42	30	0
8:00 AM	5	0	3	0	2	25	3	0	0	0	0	0	1	27	14	0
8:15 AM	2	0	1	0	0	19	0	0	1	0	0	0	1	13	5	0
8:30 AM	5	0	3	0	2	24	0	0	0	1	2	0	1	24	5	0
8:45 AM	4	1	3	0	0	14	0	0	1	0	0	0	1	31	6	0
9:00 AM	3	1	1	0	1	14	2	0	2	0	1	0	1	17	6	0
9:15 AM	4	0	1	0	1	20	3	0	0	6	1	0	0	10	6	0
9:30 AM	3	0	2	0	2	15	0	0	0	0	1	0	1	37	10	0
9:45 AM	5	0	2	0	0	8	0	0	1	0	3	0	2	34	9	0
10:00 AM	1	0	1	0	3	24	1	0	1	0	0	0	1	10	8	0
10:15 AM	6	0	4	0	2	21	2	0	2	0	2	0	2	18	8	0
10:30 AM	5	0	2	0	1	18	0	0	0	2	1	0	1	16	9	0
10:45 AM	7	0	1	0	0	26	5	0	1	0	1	0	4	24	10	0
11:00 AM	5	2	2	0	1	23	2	0	2	0	4	0	1	17	5	0
11:15 AM	7	1	5	0	3	31	0	0	2	0	1	0	3	20	3	0
11:30 AM	8	4	6	0	5	28	0	0	2	0	2	0	1	30	4	0
11:45 AM	8	0	2	0	1	28	1	0	0	1	2	0	2	25	9	0
12:00 PM	9	0	3	0	5	38	2	0	2	3	3	0	0	29	7	0
12:15 PM	10	0	1	0	4	34	2	0	1	0	1	0	1	19	7	0
12:30 PM	2	0	4	0	0	33	0	0	2	3	4	0	0	27	6	0
12:45 PM	4	2	3	0	1	36	4	0	1	0	1	0	3	37	7	0
1:00 PM	9	0	2	0	2	41	1	0	0	2	1	0	1	34	5	0
1:15 PM	9	0	4	0	1	33	0	0	0	2	2	0	4	28	6	0
1:30 PM	6	0	4	0	1	28	2	0	3	0	1	0	3	27	4	0
1:45 PM	6	0	2	0	1	31	7	0	2	2	0	0	2	30	4	0
2:00 PM	5	0	2	0	2	31	1	0	2	1	4	0	2	21	9	0
2:15 PM	7	0	3	0	6	40	2	0	1	0	3	0	2	34	6	0
2:30 PM	16	0	3	0	3	40	1	0	0	2	0	0	3	19	12	0
2:45 PM	8	0	2	0	3	36	2	0	4	3	9	0	1	41	4	0
3:00 PM	8	0	2	0	3	36	0	0	2	2	3	0	0	37	7	0
3:15 PM	6	0	1	0	1	25	1	0	1	0	1	0	1	23	7	0
3:30 PM	7	0	2	0	1	35	0	0	1	2	4	0	1	27	10	0
3:45 PM	6	0	2	0	2	53	3	0	3	2	0	0	1	18	7	0
4:00 PM	8	0	5	0	2	37	0	0	2	2	1	0	0	29	4	0
4:15 PM	6	0	1	0	3	42	0	0	2	0	3	0	0	32	5	0
4:30 PM	20	1	3	0	0	38	0	0	7	0	3	0	1	39	10	0
4:45 PM	6	0	3	0	1	37	0	0	1	1	0	0	1	38	6	0
5:00 PM	12	1	2	0	0	47	1	0	1	1	0	0	1	36	7	0
5:15 PM	6	0	6	0	0	40	0	0	0	0	0	0	1	38	2	0
5:30 PM	6	0	0	0	1	31	0	0	1	1	1	0	0	35	3	0
5:45 PM	7	0	2	0	1	23	1	0	0	0	0	0	2	32	3	0
6:00 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0

Study Name **Location 46 5th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Southbound				Fisher St Westbound				5th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:30 AM	0	0	0	0	1	1	0	0	0	0	1	0	0	2	0	0
9:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
10:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	3	0	0	1	0	0	0	1	0	1	0
1:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 46 5th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Southbound				Fisher St Westbound				5th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 46 5th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Crossing North Leg	Fisher St Crossing East Leg	5th St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	1	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	1
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	1	0	0	0
10:15 AM	0	0	2	0
10:30 AM	0	0	0	0
10:45 AM	0	0	2	1
11:00 AM	0	0	0	0
11:15 AM	0	0	1	2
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	1	0	0
1:00 PM	0	0	1	0
1:15 PM	0	0	0	0
1:30 PM	0	0	1	1
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	2	1
3:00 PM	0	0	3	2
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	1	0
4:00 PM	0	0	2	1
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	1	0
6:00 PM	0	0	0	0

Study Name **Location 46 5th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Crossing North Leg	Fisher St Crossing East Leg	5th St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	1	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	1	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
6:00 PM	0	0	0	0

Study Name **Location 46 5th St & Fisher St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Southbound				Fisher St Westbound				5th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	0	7	0	0	0	0	0	4	4	0	0
6:15 AM	0	0	0	0	1	3	0	0	1	0	0	0	2	6	3	0
6:30 AM	1	0	0	0	3	5	1	0	0	0	0	0	2	11	5	0
6:45 AM	1	0	0	0	1	8	0	0	0	0	0	0	5	9	4	0
7:00 AM	6	0	0	0	1	9	0	0	0	0	0	0	0	12	4	0
7:15 AM	1	2	2	0	1	10	0	0	3	0	2	0	5	27	7	0
7:30 AM	3	1	3	0	0	14	4	0	1	0	0	0	3	39	17	0
7:45 AM	11	1	4	0	6	35	4	0	0	0	1	0	3	42	30	0
8:00 AM	6	0	3	0	2	25	3	0	0	0	0	0	1	28	14	0
8:15 AM	2	0	1	0	0	20	0	0	2	0	0	0	1	13	6	0
8:30 AM	5	0	3	0	2	24	0	0	0	1	2	0	2	24	5	0
8:45 AM	4	1	3	0	0	15	0	0	1	0	0	0	2	31	6	0
9:00 AM	3	1	1	0	1	14	2	0	3	0	1	0	1	17	6	0
9:15 AM	4	0	1	0	1	20	3	0	0	6	1	0	0	10	7	0
9:30 AM	3	0	2	0	3	16	0	0	0	0	3	0	1	39	10	0
9:45 AM	5	0	2	0	0	9	0	0	1	0	3	0	2	36	9	0
10:00 AM	1	0	1	0	3	25	1	0	1	0	0	0	1	11	8	0
10:15 AM	7	0	4	0	2	21	2	0	2	0	3	0	2	19	9	0
10:30 AM	5	0	2	0	1	19	0	0	0	2	1	0	2	17	9	0
10:45 AM	8	0	1	0	0	27	5	0	1	0	1	0	4	24	10	0
11:00 AM	5	2	2	0	1	23	2	0	2	0	4	0	1	17	6	0
11:15 AM	7	1	5	0	3	32	0	0	2	0	1	0	3	21	4	0
11:30 AM	8	4	6	0	5	29	0	0	2	0	2	0	1	30	4	0
11:45 AM	8	0	2	0	1	29	1	0	0	1	2	0	2	25	9	0
12:00 PM	9	0	3	0	5	38	2	0	2	3	3	0	0	29	7	0
12:15 PM	10	0	1	0	4	35	2	0	1	0	1	0	1	20	9	0
12:30 PM	2	0	4	0	0	33	0	0	2	3	4	0	0	27	6	0
12:45 PM	4	2	3	0	2	38	4	0	1	0	1	0	3	39	7	0
1:00 PM	9	0	2	0	2	44	1	0	1	2	1	0	2	34	6	0
1:15 PM	9	0	4	0	1	33	0	0	1	2	2	0	5	28	7	0
1:30 PM	6	0	4	0	1	29	2	0	3	0	1	0	3	27	4	0
1:45 PM	6	0	2	0	2	31	7	0	2	2	0	0	2	30	4	0
2:00 PM	5	0	2	0	2	31	1	0	2	1	4	0	2	21	9	0
2:15 PM	7	0	3	0	6	41	2	0	1	0	3	0	2	34	7	0
2:30 PM	16	0	3	0	3	42	1	0	0	2	0	0	3	19	12	0
2:45 PM	8	0	2	0	3	36	2	0	4	3	9	0	1	44	4	0
3:00 PM	8	0	2	0	3	36	0	0	2	2	3	0	0	37	7	0
3:15 PM	6	0	1	0	1	26	1	0	1	0	1	0	1	23	8	0
3:30 PM	7	0	2	0	1	35	0	0	1	2	4	0	1	27	10	0
3:45 PM	6	0	2	0	2	53	3	0	3	2	0	0	1	18	7	0
4:00 PM	8	0	5	0	2	37	0	0	2	2	1	0	0	31	4	0
4:15 PM	6	0	2	0	3	42	0	0	2	0	3	0	0	32	6	0
4:30 PM	21	1	3	0	0	38	0	0	7	0	3	0	1	39	10	0
4:45 PM	6	0	3	0	1	37	0	0	1	1	0	0	1	38	6	0
5:00 PM	12	1	2	0	0	47	1	0	1	1	0	0	1	36	7	0
5:15 PM	7	0	6	0	0	40	0	0	0	0	0	0	1	38	3	0
5:30 PM	6	0	0	0	1	31	0	0	1	1	1	0	0	36	3	0
5:45 PM	7	0	2	0	1	23	1	0	0	0	0	0	2	32	3	0
6:00 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0

Study Name **Location 47 Altamont St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Fisher St Westbound				Altamont St Northeastbound				Fisher St Eastbound			
Start Time	Right	Bear Right	Left	U-Turn	Right	Thru	Bear Left	U-Turn	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	2	0	1	3	0	5	0	2	16	0	0
6:15 AM	0	0	0	0	0	2	1	0	2	0	10	0	2	2	0	0
6:30 AM	0	1	0	0	0	4	2	0	4	0	9	0	1	11	0	0
6:45 AM	1	0	0	0	1	8	2	0	3	3	10	0	6	11	0	0
7:00 AM	0	2	0	0	0	8	5	0	4	3	24	0	7	12	0	0
7:15 AM	0	0	0	0	0	12	9	0	14	3	21	0	18	24	0	0
7:30 AM	0	0	0	0	0	6	8	0	25	11	39	0	20	36	0	0
7:45 AM	0	1	0	0	2	20	9	0	37	17	41	0	15	57	0	0
8:00 AM	1	2	0	0	0	26	0	0	9	5	19	0	4	21	0	0
8:15 AM	1	0	0	0	0	15	4	0	6	3	13	0	2	23	0	0
8:30 AM	0	2	1	0	0	17	4	0	12	8	20	0	3	22	0	0
8:45 AM	2	1	0	0	1	20	7	0	9	7	22	0	10	43	2	0
9:00 AM	0	1	0	0	0	22	3	0	7	2	7	0	10	19	0	0
9:15 AM	0	0	0	0	1	19	5	0	12	2	13	0	2	11	1	0
9:30 AM	2	0	0	0	0	22	5	0	9	4	15	0	2	25	0	0
9:45 AM	2	0	0	0	0	28	2	0	8	3	13	0	7	29	0	0
10:00 AM	0	2	0	0	0	28	4	0	7	3	12	0	9	24	0	0
10:15 AM	1	0	0	0	0	35	3	0	7	2	15	0	6	15	1	0
10:30 AM	0	0	0	0	0	17	5	0	7	1	18	0	9	15	0	0
10:45 AM	1	0	0	0	1	24	8	0	6	4	12	0	9	28	1	0
11:00 AM	0	0	0	0	0	38	16	0	11	2	11	0	10	19	0	0
11:15 AM	0	1	1	0	0	35	12	0	9	1	13	0	8	18	0	0
11:30 AM	0	0	0	0	1	34	10	0	5	3	5	0	11	29	0	0
11:45 AM	4	0	0	0	0	27	11	0	12	7	11	0	12	47	0	0
12:00 PM	1	1	0	0	0	38	6	0	4	5	20	0	11	37	2	0
12:15 PM	0	3	0	0	0	45	7	0	11	3	15	0	21	29	0	0
12:30 PM	1	1	0	0	1	41	9	0	8	5	13	0	8	34	2	0
12:45 PM	1	1	0	0	0	38	15	0	16	6	6	0	11	40	0	0
1:00 PM	0	2	0	0	4	43	10	0	10	8	11	0	12	26	2	0
1:15 PM	0	1	0	0	1	32	7	0	7	4	13	0	6	25	0	0
1:30 PM	0	0	0	0	0	29	6	0	11	3	15	0	9	22	3	0
1:45 PM	0	1	1	0	0	34	9	0	9	2	11	0	6	26	2	0
2:00 PM	0	1	0	0	1	42	7	0	5	5	12	0	10	31	1	0
2:15 PM	1	2	0	0	0	30	11	0	15	9	13	0	14	25	1	0
2:30 PM	1	3	0	0	1	56	17	0	12	3	12	0	24	21	0	0
2:45 PM	2	3	1	0	0	46	14	0	16	16	29	0	14	30	0	0
3:00 PM	1	0	0	0	0	47	15	0	9	6	27	0	18	30	0	0
3:15 PM	1	4	0	0	0	30	16	0	6	8	15	0	15	31	0	0
3:30 PM	2	4	1	0	1	34	13	0	6	10	18	0	14	17	0	0
3:45 PM	0	2	0	0	3	29	11	0	5	6	12	0	15	33	0	0
4:00 PM	2	2	0	0	1	38	6	0	11	3	8	0	18	49	1	0
4:15 PM	0	1	1	0	2	50	7	0	3	3	8	0	15	30	1	0
4:30 PM	0	2	1	0	1	32	13	0	9	6	18	0	10	25	1	0
4:45 PM	1	2	0	0	0	37	8	0	5	5	18	0	20	21	1	0
5:00 PM	1	4	1	0	1	43	23	0	6	10	16	0	21	28	2	0
5:15 PM	0	3	0	0	0	36	19	0	9	8	23	0	18	26	1	0
5:30 PM	1	1	0	0	0	20	15	0	12	1	25	0	12	24	2	0
5:45 PM	0	2	1	0	2	21	10	0	7	4	14	0	18	21	1	0

Study Name **Location 47 Altamont St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Fisher St Westbound				Altamont St Northeastbound				Fisher St Eastbound			
Start Time	Right	Bear Right	Left	U-Turn	Right	Thru	Bear Left	U-Turn	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	1	2	0	0	0	0	2	0	1	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
12:30 PM	0	0	1	0	0	0	0	0	1	0	1	0	1	0	0	0
12:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
1:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0

Study Name **Location 47 Altamont St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Fisher St Westbound				Altamont St Northeastbound				Fisher St Eastbound			
Start Time	Right	Bear Right	Left	U-Turn	Right	Thru	Bear Left	U-Turn	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
2:30 PM	0	1	0	0	0	1	1	0	0	0	0	0	5	0	0	0
2:45 PM	0	0	0	0	0	0	1	0	1	1	0	0	3	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 47 Altamont St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Crossing North Leg	Fisher St Crossing East Leg	Altamont St Crossing Southwest Leg	Fisher St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	1
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	2
8:30 AM	0	0	0	2
8:45 AM	0	0	0	0
9:00 AM	1	1	0	2
9:15 AM	0	0	0	0
9:30 AM	0	0	0	1
9:45 AM	0	0	0	0
10:00 AM	0	0	0	1
10:15 AM	0	0	0	0
10:30 AM	1	0	0	2
10:45 AM	1	0	0	0
11:00 AM	0	0	1	0
11:15 AM	0	1	0	0
11:30 AM	0	1	1	0
11:45 AM	0	1	0	0
12:00 PM	0	0	1	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	1
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	1
3:00 PM	1	1	0	0
3:15 PM	0	1	0	0
3:30 PM	2	1	0	0
3:45 PM	0	0	0	0
4:00 PM	1	1	0	1
4:15 PM	0	2	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	1
5:15 PM	0	0	0	0
5:30 PM	0	1	1	1
5:45 PM	0	1	0	0

Study Name **Location 47 Altamont St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Crossing North Leg	Fisher St Crossing East Leg	Altamont St Crossing Southwest Leg	Fisher St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	1
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	1	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	1
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	1	0	0
5:45 PM	0	0	0	0

Location 47.xls

Study Name **Location 47 Altamont St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Fisher St Westbound				Altamont St Northeastbound				Fisher St Eastbound			
Start Time	Right	Bear Right	Left	U-Turn	Right	Thru	Bear Left	U-Turn	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	2	0	1	3	0	5	0	2	16	0	0
6:15 AM	0	0	0	0	0	2	2	0	2	0	10	0	2	2	0	0
6:30 AM	0	1	0	0	0	4	2	0	4	0	9	0	1	11	0	0
6:45 AM	1	0	0	0	1	8	2	0	4	3	11	0	6	11	1	0
7:00 AM	0	2	0	0	0	8	5	0	5	3	24	0	7	12	0	0
7:15 AM	0	0	0	0	0	13	9	0	14	3	21	0	20	26	0	0
7:30 AM	0	0	0	0	0	6	9	0	25	11	39	0	23	37	0	0
7:45 AM	0	1	0	0	2	20	9	0	37	18	44	0	15	57	0	0
8:00 AM	1	2	0	0	0	26	0	0	10	5	19	0	4	21	0	0
8:15 AM	1	0	0	0	0	16	4	0	6	3	13	0	2	24	0	0
8:30 AM	0	2	1	0	0	17	5	0	12	8	20	0	3	22	0	0
8:45 AM	2	1	0	0	1	21	7	0	9	7	22	0	10	43	2	0
9:00 AM	0	1	0	0	0	23	4	0	8	2	7	0	11	19	0	0
9:15 AM	0	0	0	0	1	20	5	0	13	3	14	0	2	12	1	0
9:30 AM	2	0	0	0	0	23	5	0	9	4	16	0	3	25	1	0
9:45 AM	2	0	0	0	0	28	2	0	9	3	13	0	7	29	0	0
10:00 AM	0	2	0	0	0	28	4	0	7	3	12	0	9	24	0	0
10:15 AM	1	0	0	0	0	35	3	0	7	2	15	0	6	17	1	0
10:30 AM	0	0	0	0	0	17	5	0	7	1	18	0	9	15	0	0
10:45 AM	1	0	0	0	2	26	8	0	6	4	14	0	10	28	1	0
11:00 AM	0	0	0	0	0	38	16	0	11	2	11	0	10	19	0	0
11:15 AM	0	1	1	0	0	35	12	0	9	1	13	0	8	19	0	0
11:30 AM	0	0	0	0	1	34	10	0	5	3	5	0	11	29	0	0
11:45 AM	4	0	0	0	0	27	11	0	12	7	11	0	12	47	0	0
12:00 PM	1	1	0	0	0	39	6	0	4	5	20	0	11	37	2	0
12:15 PM	0	3	0	0	0	45	7	0	11	4	15	0	21	30	0	0
12:30 PM	1	1	1	0	1	41	9	0	9	5	14	0	9	34	2	0
12:45 PM	1	1	0	0	0	39	16	0	16	6	6	0	11	41	0	0
1:00 PM	0	2	0	0	4	43	10	0	10	8	11	0	12	27	2	0
1:15 PM	0	1	0	0	1	32	7	0	7	4	13	0	6	25	0	0
1:30 PM	0	0	0	0	0	30	6	0	11	3	15	0	9	23	3	0
1:45 PM	0	1	1	0	1	34	9	0	9	2	11	0	6	26	3	0
2:00 PM	0	1	0	0	1	42	7	0	5	5	12	0	10	31	1	0
2:15 PM	1	2	0	0	0	31	12	0	15	9	13	0	15	26	1	0
2:30 PM	1	4	0	0	1	57	18	0	12	3	12	0	29	21	0	0
2:45 PM	2	3	1	0	0	46	15	0	17	17	29	0	17	30	1	0
3:00 PM	1	0	0	0	0	47	15	0	9	6	29	0	18	31	0	0
3:15 PM	1	4	0	0	0	30	16	0	7	8	15	0	15	32	0	0
3:30 PM	2	4	1	0	1	34	13	0	7	10	18	0	14	17	0	0
3:45 PM	0	2	0	0	3	30	11	0	5	6	12	0	15	34	0	0
4:00 PM	2	2	0	0	1	40	6	0	11	3	8	0	18	50	1	0
4:15 PM	0	1	1	0	2	50	8	0	3	3	8	0	15	31	1	0
4:30 PM	0	2	1	0	1	34	13	0	9	6	18	0	10	25	1	0
4:45 PM	1	2	0	0	0	37	8	0	5	5	18	0	20	21	1	0
5:00 PM	1	4	1	0	1	44	23	0	6	10	16	0	21	28	2	0
5:15 PM	0	3	0	0	0	36	19	0	9	8	23	0	18	26	1	0
5:30 PM	1	1	0	0	0	20	15	0	12	1	25	0	12	25	2	0
5:45 PM	0	3	1	0	2	23	10	0	7	4	14	0	18	21	1	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Fisher St Westbound				7th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	1	0	2	0	5	0	17	10	0	0	0	0	0	0
6:15 AM	0	8	2	0	7	0	6	0	2	23	0	0	0	0	0	0
6:30 AM	0	9	2	0	6	0	8	0	9	35	0	0	1	0	1	0
6:45 AM	0	15	6	0	11	0	9	0	12	45	1	0	0	0	0	0
7:00 AM	1	10	4	0	19	1	12	0	12	61	0	0	1	1	0	0
7:15 AM	0	24	18	0	14	0	18	0	25	79	0	0	0	0	0	0
7:30 AM	0	25	22	0	24	0	24	0	35	56	0	0	0	0	0	0
7:45 AM	0	27	20	0	34	1	32	0	51	77	1	0	0	1	0	0
8:00 AM	0	19	6	0	17	1	29	0	20	44	0	0	1	0	1	0
8:15 AM	0	14	3	0	12	0	20	0	20	33	1	0	1	1	1	0
8:30 AM	3	30	3	0	13	0	20	0	20	47	0	0	1	1	0	0
8:45 AM	1	29	11	0	18	0	30	0	42	61	0	0	0	1	1	0
9:00 AM	0	31	11	0	6	0	21	0	18	24	0	0	0	1	0	0
9:15 AM	0	23	1	0	12	0	22	0	12	32	0	0	0	0	0	0
9:30 AM	1	21	6	0	13	0	27	0	21	52	1	0	0	0	0	0
9:45 AM	0	17	8	0	15	1	28	0	28	28	0	0	0	1	0	0
10:00 AM	0	15	12	0	10	0	32	0	20	24	0	0	1	0	0	0
10:15 AM	0	14	7	0	13	0	33	0	15	31	0	0	0	0	1	0
10:30 AM	1	23	11	0	14	0	24	0	13	37	0	0	0	0	1	0
10:45 AM	0	15	16	0	10	0	27	0	23	34	1	0	1	0	0	0
11:00 AM	0	27	13	0	15	0	38	0	16	24	0	0	1	0	0	0
11:15 AM	0	26	10	0	9	0	38	0	14	15	0	0	1	1	0	0
11:30 AM	0	21	13	0	11	0	31	0	27	30	0	0	0	0	0	0
11:45 AM	0	38	26	0	8	0	29	0	34	40	1	0	1	0	0	0
12:00 PM	0	44	18	0	20	0	42	0	33	27	1	0	1	0	0	0
12:15 PM	0	39	22	0	9	0	50	0	27	32	0	0	0	0	0	0
12:30 PM	1	32	13	0	14	0	39	1	32	26	1	0	1	0	0	0
12:45 PM	1	31	14	0	8	0	37	0	36	33	0	0	1	0	0	0
1:00 PM	0	34	16	0	6	0	46	0	25	21	2	0	1	0	1	0
1:15 PM	0	24	8	0	12	0	39	0	23	26	0	0	0	0	0	0
1:30 PM	0	34	12	0	11	0	32	0	20	39	0	0	1	0	0	0
1:45 PM	0	32	6	0	15	0	32	0	28	41	0	0	0	0	0	0
2:00 PM	0	41	15	0	12	0	45	0	27	22	0	0	0	0	0	0
2:15 PM	1	24	20	0	15	0	26	0	20	35	0	0	0	0	1	0
2:30 PM	0	68	27	0	17	1	52	0	20	40	0	0	0	0	0	0
2:45 PM	0	43	18	0	24	0	58	0	27	34	0	0	0	0	0	0
3:00 PM	1	51	21	0	22	0	50	0	32	22	0	0	0	0	0	0
3:15 PM	0	42	15	0	10	0	38	0	32	22	1	0	1	0	0	0
3:30 PM	1	61	17	0	8	0	48	0	14	45	0	0	3	0	0	0
3:45 PM	0	63	20	0	7	0	34	0	31	45	0	0	1	0	0	0
4:00 PM	0	79	24	0	7	0	40	0	45	35	0	0	0	0	0	0
4:15 PM	0	58	19	0	8	0	51	0	28	31	1	0	0	0	0	0
4:30 PM	0	60	14	0	12	0	37	0	21	33	0	0	1	1	0	0
4:45 PM	0	64	25	0	17	0	38	0	17	35	1	0	0	0	0	0
5:00 PM	1	97	25	0	11	0	45	0	26	35	1	0	1	1	0	0
5:15 PM	0	55	25	0	14	0	49	0	22	39	1	0	0	0	0	0
5:30 PM	3	43	16	0	14	0	30	0	20	35	0	0	1	0	0	0
5:45 PM	0	39	20	0	9	0	27	0	20	35	0	0	2	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Fisher St Westbound				7th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0
9:15 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0
9:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:15 AM	0	2	1	0	0	0	0	0	1	2	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:45 AM	0	1	1	0	2	0	1	0	0	2	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
1:00 PM	0	2	1	0	0	0	0	0	0	2	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0
2:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
3:00 PM	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Fisher St Westbound				7th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	5	0	0	0	1	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	2	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Fisher St Crossing East Leg	7th St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	1
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	1
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	0	1
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	1	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	1
5:15 PM	0	1	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Fisher St Crossing East Leg	7th St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	1	1	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	1	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Fisher St Westbound				7th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	5	1	0	2	0	5	0	17	10	0	0	0	0	0	0
6:15 AM	0	8	2	0	7	0	6	0	2	23	0	0	0	0	0	0
6:30 AM	0	10	2	0	6	0	8	0	9	35	0	0	1	0	1	0
6:45 AM	0	15	6	0	11	0	10	0	13	46	1	0	0	0	0	0
7:00 AM	1	10	4	0	19	1	12	0	12	62	0	0	1	1	0	0
7:15 AM	0	25	23	0	14	0	19	0	25	80	0	0	0	0	0	0
7:30 AM	0	25	24	0	24	0	24	0	36	56	0	0	0	0	0	0
7:45 AM	0	28	20	0	36	1	32	0	51	77	1	0	0	1	0	0
8:00 AM	0	20	6	0	18	1	29	0	20	46	0	0	1	0	1	0
8:15 AM	0	14	4	0	12	0	21	0	20	34	1	0	1	1	1	0
8:30 AM	3	30	3	0	13	0	20	0	20	47	0	0	1	1	0	0
8:45 AM	1	29	11	0	18	0	31	0	42	61	0	0	0	1	1	0
9:00 AM	0	32	12	0	6	0	22	0	18	26	0	0	0	1	0	0
9:15 AM	0	24	2	0	13	1	22	0	12	33	0	0	0	0	0	0
9:30 AM	1	21	6	0	13	0	29	0	22	53	1	0	0	1	0	0
9:45 AM	0	18	8	0	15	2	28	0	28	28	0	0	0	1	0	0
10:00 AM	0	16	12	0	10	0	32	0	20	24	0	0	1	1	0	0
10:15 AM	0	16	8	0	13	0	33	0	16	33	0	0	0	0	1	0
10:30 AM	1	23	11	0	14	0	24	0	13	37	0	0	1	0	1	0
10:45 AM	0	16	17	0	12	0	28	0	23	36	1	0	1	0	0	0
11:00 AM	0	28	13	0	15	0	38	0	16	25	0	0	1	0	0	0
11:15 AM	1	26	11	0	9	0	38	0	14	16	0	0	2	1	0	0
11:30 AM	0	22	13	0	11	0	31	0	27	30	0	0	0	0	0	0
11:45 AM	0	39	26	0	8	0	29	0	34	42	1	0	1	0	0	0
12:00 PM	0	45	18	0	21	0	42	0	33	27	1	0	1	0	0	0
12:15 PM	0	39	23	0	9	0	50	0	27	33	0	0	0	0	0	0
12:30 PM	1	33	14	0	14	0	40	1	33	27	1	0	1	0	0	0
12:45 PM	1	31	14	0	9	0	37	0	37	33	0	0	1	0	0	0
1:00 PM	0	36	17	0	6	0	46	0	25	23	2	0	1	0	1	0
1:15 PM	0	24	8	0	12	0	39	0	23	26	0	0	0	0	0	0
1:30 PM	0	36	13	0	11	0	33	0	20	39	0	0	1	0	0	0
1:45 PM	0	33	6	0	15	0	32	0	29	41	0	0	0	0	0	0
2:00 PM	0	42	15	0	12	0	45	0	27	23	0	0	0	0	0	0
2:15 PM	1	25	22	0	15	0	27	0	20	37	0	0	0	0	1	0
2:30 PM	0	69	33	0	17	1	53	0	20	40	0	0	0	0	0	0
2:45 PM	0	43	20	0	24	0	58	0	28	36	0	0	0	0	0	0
3:00 PM	1	54	21	0	24	0	50	0	33	23	0	0	0	0	0	0
3:15 PM	0	43	16	0	10	0	38	0	32	22	1	0	1	0	0	0
3:30 PM	1	62	17	0	8	0	48	0	14	46	0	0	3	0	0	0
3:45 PM	0	64	20	0	7	0	35	0	32	46	0	0	1	0	0	0
4:00 PM	0	80	24	0	7	0	42	0	47	36	0	0	0	0	0	0
4:15 PM	0	60	20	0	8	0	51	0	28	32	1	0	0	0	0	0
4:30 PM	0	60	14	0	12	0	39	0	21	34	0	0	1	1	0	0
4:45 PM	0	65	25	0	17	0	38	0	17	36	1	0	0	0	0	0
5:00 PM	1	97	25	0	11	0	46	0	26	38	1	0	1	1	0	0
5:15 PM	0	55	25	0	14	0	49	0	22	40	1	0	0	0	0	0
5:30 PM	3	43	17	0	14	0	30	0	20	35	0	0	1	0	0	0
5:45 PM	0	39	20	0	10	0	28	0	20	35	0	0	2	0	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southwestbound				U.S. 41 Northwestbound				Grove St Northeastbound				U.S. 41 Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	4	2	0	0	4	39	3	0	0	11	2	0	1	17	17	0
6:15 AM	5	5	0	0	10	43	3	0	5	13	2	0	3	15	2	0
6:30 AM	7	7	3	0	19	69	3	0	2	16	3	0	4	23	8	0
6:45 AM	10	10	3	0	23	82	4	0	5	22	0	0	1	40	13	0
7:00 AM	15	9	1	0	53	106	6	0	5	23	2	0	3	32	7	0
7:15 AM	19	14	5	0	32	97	6	0	8	50	1	0	12	49	18	0
7:30 AM	31	12	6	0	28	141	9	0	7	44	7	0	14	90	29	1
7:45 AM	33	17	5	0	21	159	10	0	8	51	4	0	16	112	40	0
8:00 AM	29	17	2	0	14	99	9	0	9	22	7	0	10	78	21	0
8:15 AM	19	12	2	0	16	119	4	0	10	20	3	0	6	79	23	0
8:30 AM	26	23	6	0	28	121	11	0	14	26	3	0	1	82	20	0
8:45 AM	25	25	0	0	29	130	9	0	24	48	4	0	7	92	26	0
9:00 AM	27	21	6	0	10	112	6	0	9	14	4	0	8	67	11	0
9:15 AM	26	14	1	0	18	95	8	0	10	22	2	0	6	81	9	0
9:30 AM	29	10	11	0	24	111	3	0	5	37	2	0	1	83	23	0
9:45 AM	25	17	16	0	12	108	5	0	10	17	2	0	5	95	17	0
10:00 AM	31	12	2	0	13	109	4	0	5	14	6	0	6	76	12	0
10:15 AM	32	7	7	0	13	89	8	0	8	19	1	0	6	96	15	0
10:30 AM	26	18	2	0	14	109	6	0	10	21	2	0	6	102	18	0
10:45 AM	24	9	5	0	19	96	3	0	5	20	6	0	4	93	18	0
11:00 AM	33	23	8	0	7	86	9	0	5	11	10	0	8	87	19	0
11:15 AM	31	26	10	0	4	95	4	0	4	11	4	0	7	100	12	0
11:30 AM	26	17	9	0	15	99	3	0	8	17	3	0	8	126	25	0
11:45 AM	42	21	10	0	17	113	7	0	9	25	16	0	11	116	31	0
12:00 PM	46	32	6	0	9	119	10	0	6	15	9	0	6	117	33	0
12:15 PM	47	25	11	0	9	115	9	0	9	27	9	0	5	143	27	0
12:30 PM	39	25	8	0	11	119	8	0	14	23	2	0	10	119	31	0
12:45 PM	32	22	11	0	8	106	11	0	18	22	6	0	13	134	28	0
1:00 PM	41	29	13	0	14	116	12	1	6	14	4	0	8	125	18	2
1:15 PM	41	18	5	0	5	107	4	0	14	23	3	0	9	127	19	0
1:30 PM	35	24	6	0	15	125	10	0	10	19	3	0	12	133	31	0
1:45 PM	30	23	14	0	9	115	14	0	10	28	5	0	9	114	28	0
2:00 PM	43	28	10	0	6	109	10	0	12	27	3	0	12	148	20	0
2:15 PM	19	22	15	0	4	117	9	0	9	24	8	0	12	127	23	0
2:30 PM	54	45	19	0	16	105	9	0	9	32	10	0	16	121	21	0
2:45 PM	57	28	13	0	5	117	13	0	10	29	13	0	10	93	23	0
3:00 PM	56	34	15	0	5	103	6	0	11	25	5	0	7	112	21	0
3:15 PM	34	29	20	0	9	105	10	0	10	25	9	0	11	134	22	0
3:30 PM	48	43	16	0	15	122	10	0	12	24	6	0	10	143	22	0
3:45 PM	44	37	27	0	9	98	13	0	20	40	4	0	13	150	30	0
4:00 PM	45	53	21	0	6	119	12	0	21	32	5	0	13	156	30	0
4:15 PM	37	43	21	0	7	137	16	0	15	35	11	0	13	170	24	0
4:30 PM	45	39	23	0	10	138	9	0	19	27	6	0	10	169	17	0
4:45 PM	45	41	18	0	7	152	16	0	17	28	8	0	13	168	14	0
5:00 PM	65	50	23	0	12	149	26	0	26	25	6	0	9	172	22	0
5:15 PM	48	38	10	0	10	123	18	0	22	27	3	0	11	161	22	0
5:30 PM	32	26	16	0	10	115	13	0	10	22	3	0	7	145	20	0
5:45 PM	26	30	10	0	17	115	3	0	11	25	3	0	9	143	20	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southwestbound				U.S. 41 Northwestbound				Grove St Northeastbound				U.S. 41 Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	1	0	0	0	1	1	0	0	0	0	0	0	0	3	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	0	0	1	0	0	1	1	0	0
7:30 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0
7:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	2	1	0
8:00 AM	1	1	0	0	0	3	0	0	0	1	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	3	9	0	0
9:00 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0
9:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0
9:30 AM	1	1	0	0	0	3	0	0	0	0	0	0	0	3	1	0
9:45 AM	0	0	0	0	0	6	0	0	0	0	0	0	1	5	0	0
10:00 AM	0	1	0	0	0	4	0	0	1	0	1	0	0	3	0	0
10:15 AM	1	2	0	0	1	0	0	0	0	1	0	0	0	1	2	0
10:30 AM	0	0	1	0	0	5	0	0	0	1	0	0	0	2	0	0
10:45 AM	1	1	0	0	0	3	1	0	0	2	0	0	0	4	0	0
11:00 AM	1	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	4	0	0
11:30 AM	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0
11:45 AM	1	0	0	0	0	2	0	0	0	1	0	0	0	10	0	0
12:00 PM	0	1	0	0	0	6	0	0	0	0	0	0	0	4	0	0
12:15 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	3	0	0
12:30 PM	1	1	0	0	0	4	0	0	0	0	1	0	0	5	2	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
1:00 PM	1	0	0	0	1	2	0	0	0	1	0	0	0	2	0	0
1:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
1:30 PM	2	1	0	0	0	1	0	0	0	0	0	0	0	5	0	0
1:45 PM	0	0	1	0	2	2	0	0	0	0	0	0	0	1	0	0
2:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	2	0	0
2:15 PM	0	1	0	0	0	4	0	0	0	0	1	0	0	2	1	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0
2:45 PM	1	0	0	0	0	8	0	0	0	0	0	0	0	8	2	0
3:00 PM	0	0	0	0	0	6	0	0	0	1	0	0	0	2	0	0
3:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0
3:30 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	3	0	0
3:45 PM	0	1	0	0	0	1	0	0	0	0	1	0	0	1	2	0
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
4:15 PM	1	0	1	0	0	2	0	0	0	0	0	0	0	3	0	0
4:30 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	3	0	0
4:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	2	0	0
5:00 PM	0	0	0	0	0	1	0	0	2	1	0	0	0	3	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	5	1	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southwestbound				U.S. 41 Northwestbound				Grove St Northeastbound				U.S. 41 Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	2	0	0	5	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
6:45 AM	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	1	5	0	0	0	0	0	0	0	2	0	0
7:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0
7:30 AM	0	0	0	0	0	9	0	0	0	0	0	0	0	4	0	0
7:45 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	5	0	0
8:00 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	5	0	0
8:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0	0
8:45 AM	0	1	0	0	0	5	0	0	0	0	0	0	0	5	0	0
9:00 AM	0	0	0	0	1	6	0	0	0	0	0	0	0	3	0	0
9:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	10	0	0
9:30 AM	1	0	0	0	0	7	0	0	0	0	0	0	0	3	0	0
9:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0
10:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0
10:15 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	6	0	0
10:30 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0
10:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	6	0	0
11:00 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0
11:15 AM	1	0	0	0	0	3	0	0	0	0	0	0	0	4	0	0
11:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	5	0	0
11:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
12:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
12:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0
12:30 PM	0	0	0	0	0	7	0	0	0	0	0	0	0	4	0	0
12:45 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
1:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0
1:45 PM	0	0	0	0	0	7	0	0	0	0	0	0	0	3	0	0
2:00 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	5	0	0
2:15 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	7	0	0
2:30 PM	1	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0
2:45 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	3	0	0
3:00 PM	0	1	0	0	0	3	0	0	0	1	0	0	0	3	0	0
3:15 PM	0	0	1	0	0	10	0	0	0	0	0	0	0	3	0	0
3:30 PM	0	0	0	0	1	7	0	0	0	0	0	0	0	6	0	0
3:45 PM	1	0	0	0	1	4	0	0	0	1	0	0	0	7	0	0
4:00 PM	1	0	0	0	1	4	0	0	0	0	0	0	0	2	0	0
4:15 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	3	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0	0
4:45 PM	0	0	0	0	2	6	0	0	0	0	0	0	0	5	1	0
5:00 PM	0	1	0	0	0	7	0	0	0	0	0	0	0	1	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing Northeast Leg	U.S. 41 Crossing Southeast Leg	Grove St Crossing Southwest Leg	U.S. 41 Crossing Northwest Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	1	1	1
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	1
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	1
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	0
5:15 PM	0	1	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing Northeast Leg	U.S. 41 Crossing Southeast Leg	Grove St Crossing Southwest Leg	U.S. 41 Crossing Northwest Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	1
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southwestbound				U.S. 41 Northwestbound				Grove St Northeastbound				U.S. 41 Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	4	2	2	0	4	44	3	0	0	11	2	0	1	17	17	0
6:15 AM	5	5	0	0	10	49	3	0	5	13	2	0	3	16	2	0
6:30 AM	7	8	3	0	19	71	3	0	2	16	3	0	4	26	8	0
6:45 AM	11	10	3	0	25	87	4	0	5	22	0	0	1	43	13	0
7:00 AM	15	9	1	0	54	111	6	0	5	23	2	0	3	34	7	0
7:15 AM	19	15	6	0	33	98	6	0	8	51	1	0	13	52	18	0
7:30 AM	31	12	6	0	28	155	9	0	7	44	7	0	14	96	29	1
7:45 AM	33	18	5	0	21	166	10	0	8	51	4	0	17	119	41	0
8:00 AM	30	18	2	0	14	107	9	0	9	23	7	0	10	83	22	0
8:15 AM	19	12	2	0	16	122	4	0	10	21	3	0	6	80	23	0
8:30 AM	26	23	6	0	28	122	11	0	14	26	3	0	1	93	20	0
8:45 AM	25	26	0	0	29	136	9	0	24	48	4	0	10	106	26	0
9:00 AM	27	22	6	0	11	120	6	0	9	14	4	0	8	70	12	0
9:15 AM	26	14	1	0	18	102	8	0	10	23	2	0	6	93	9	0
9:30 AM	31	11	11	0	24	121	3	0	5	37	2	0	1	89	24	0
9:45 AM	25	17	16	0	12	117	5	0	10	17	2	0	6	103	17	0
10:00 AM	31	13	2	0	13	117	4	0	6	14	7	0	6	82	12	0
10:15 AM	33	9	7	0	14	94	8	0	8	20	1	0	6	103	17	0
10:30 AM	26	18	3	0	14	118	6	0	10	22	2	0	6	108	18	0
10:45 AM	25	10	5	0	19	102	4	0	5	22	6	0	4	103	18	0
11:00 AM	34	23	8	0	7	92	9	0	5	12	10	0	8	90	19	0
11:15 AM	32	26	10	0	4	101	4	0	4	11	4	0	7	108	12	0
11:30 AM	26	17	10	0	15	103	3	0	8	18	3	0	8	132	25	0
11:45 AM	43	21	10	0	17	118	7	0	9	26	16	0	11	128	31	0
12:00 PM	46	33	6	0	9	128	10	0	6	15	9	0	6	123	33	0
12:15 PM	47	25	11	0	9	121	9	0	9	28	9	0	5	150	27	0
12:30 PM	40	26	8	0	11	130	8	0	14	23	3	0	10	128	33	0
12:45 PM	32	22	11	0	8	112	11	0	18	23	6	0	13	137	28	0
1:00 PM	42	29	13	0	15	123	12	1	6	15	4	0	8	128	18	2
1:15 PM	41	18	5	0	5	112	4	0	14	23	3	0	9	131	19	0
1:30 PM	37	25	6	0	15	128	10	0	10	19	3	0	12	142	31	0
1:45 PM	30	23	15	0	11	124	14	0	10	28	5	0	9	118	28	0
2:00 PM	43	30	10	0	6	113	10	0	12	28	3	0	12	155	20	0
2:15 PM	19	23	15	0	4	126	9	0	9	24	9	0	12	136	24	0
2:30 PM	55	45	19	0	16	110	9	0	9	32	10	0	16	126	21	0
2:45 PM	58	28	13	0	5	127	14	0	10	29	13	0	10	104	25	0
3:00 PM	56	35	15	0	5	112	6	0	11	27	5	0	7	117	21	0
3:15 PM	34	29	21	0	9	119	10	0	10	25	9	0	11	139	22	0
3:30 PM	48	43	16	0	16	135	10	0	12	24	6	0	10	152	22	0
3:45 PM	45	38	27	0	10	103	13	0	20	41	5	0	13	158	32	0
4:00 PM	47	53	21	0	7	123	12	0	21	32	5	0	13	162	30	0
4:15 PM	38	43	22	0	8	141	16	0	15	35	11	0	13	176	24	0
4:30 PM	45	40	23	0	11	142	9	0	19	27	6	0	10	177	17	0
4:45 PM	45	42	18	0	9	160	16	0	17	28	8	0	13	175	15	0
5:00 PM	65	51	23	0	12	157	26	0	28	26	6	0	9	176	22	0
5:15 PM	48	38	10	0	10	124	18	0	22	27	3	0	11	166	23	0
5:30 PM	32	26	16	0	10	119	13	0	10	22	3	0	7	148	20	0
5:45 PM	27	30	10	0	17	116	3	0	11	25	3	0	9	145	20	0

Study Name **Location 50 U.S. 41 & Genesee St/Lakeshore Blvd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Southbound				Lakeshore Blvd Westbound				U.S. 41 Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	24	0	0	2	1	2	0	4	63	2	0	0	3	1	0
6:15 AM	0	31	0	0	0	1	3	0	4	86	1	0	2	0	3	0
6:30 AM	2	32	0	0	0	1	1	0	5	136	2	0	1	1	2	0
6:45 AM	4	42	0	0	1	2	5	0	11	177	2	0	5	3	8	0
7:00 AM	6	44	0	0	0	2	3	0	11	205	2	0	4	6	8	0
7:15 AM	6	64	0	0	2	2	7	0	16	210	6	0	10	8	7	0
7:30 AM	13	80	0	0	2	10	10	0	16	217	7	0	13	6	13	0
7:45 AM	13	113	0	0	0	12	9	0	18	331	6	0	12	20	28	0
8:00 AM	6	83	0	0	1	0	5	0	13	152	1	0	11	11	12	0
8:15 AM	2	80	0	0	1	4	9	0	12	173	3	0	4	8	15	0
8:30 AM	5	100	2	0	2	2	10	0	8	188	4	0	9	8	7	0
8:45 AM	12	100	2	0	1	5	9	0	15	236	1	0	1	5	16	0
9:00 AM	6	99	0	0	2	2	10	0	7	167	4	0	5	9	9	0
9:15 AM	7	102	0	0	1	5	7	0	14	156	2	0	5	6	11	0
9:30 AM	5	89	1	0	3	5	10	0	12	179	6	0	9	8	12	0
9:45 AM	12	99	0	0	0	5	11	0	8	180	3	0	13	11	11	0
10:00 AM	7	100	2	0	3	5	7	0	10	142	7	0	11	8	9	0
10:15 AM	13	109	1	0	0	6	6	0	13	134	3	0	10	3	12	0
10:30 AM	8	115	0	0	2	10	12	0	3	157	0	0	6	5	11	0
10:45 AM	11	108	1	0	5	6	11	0	5	146	10	0	12	6	11	0
11:00 AM	10	119	1	0	0	5	11	0	11	119	5	0	12	5	13	0
11:15 AM	4	118	2	0	5	2	10	0	11	133	4	0	9	5	11	0
11:30 AM	5	149	2	0	1	3	17	0	13	164	5	0	9	2	14	0
11:45 AM	16	138	4	0	2	7	14	0	6	159	3	0	16	8	13	0
12:00 PM	16	166	2	0	2	10	9	0	14	165	2	0	12	8	9	0
12:15 PM	18	154	1	0	5	6	16	0	2	149	11	0	14	5	21	0
12:30 PM	14	128	5	0	5	11	11	0	11	136	0	0	13	6	15	0
12:45 PM	10	170	2	0	3	4	16	0	13	126	5	0	18	10	21	0
1:00 PM	5	167	1	0	3	6	19	0	13	150	7	0	12	11	17	0
1:15 PM	11	145	2	0	1	8	12	0	13	143	8	0	9	7	11	0
1:30 PM	21	156	0	0	3	9	19	0	8	144	4	0	8	17	5	0
1:45 PM	8	147	0	0	3	12	13	0	7	158	7	0	9	14	11	0
2:00 PM	21	153	2	0	5	8	9	0	12	164	7	0	2	11	10	0
2:15 PM	12	171	3	0	1	7	22	0	9	161	7	0	0	4	10	0
2:30 PM	8	177	2	0	1	6	21	0	11	146	2	0	13	10	12	0
2:45 PM	12	154	2	0	2	8	8	0	13	129	1	0	12	6	15	0
3:00 PM	14	185	1	0	1	11	23	0	15	134	7	0	10	6	20	0
3:15 PM	12	183	1	0	7	8	22	0	18	137	6	0	6	4	14	0
3:30 PM	16	197	1	0	3	17	20	0	10	144	8	0	8	7	13	0
3:45 PM	13	212	1	0	3	17	21	0	12	122	4	0	9	13	6	0
4:00 PM	17	244	2	0	2	21	27	0	8	192	5	0	16	14	5	0
4:15 PM	9	244	1	0	2	10	22	0	16	139	5	0	17	10	5	0
4:30 PM	17	260	3	0	2	6	29	0	14	178	10	0	7	8	8	0
4:45 PM	22	215	0	0	0	13	16	0	21	187	9	0	14	12	20	0
5:00 PM	22	271	2	0	7	11	28	0	13	165	8	0	17	10	18	0
5:15 PM	14	258	2	0	3	15	28	0	11	171	5	0	11	8	18	0
5:30 PM	11	198	2	0	4	15	24	0	12	176	4	0	15	14	22	0
5:45 PM	10	212	2	0	0	9	23	0	11	159	7	0	11	7	16	0

Study Name **Location 50 U.S. 41 & Genesee St/Lakeshore Blvd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Southbound				Lakeshore Blvd Westbound				U.S. 41 Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
6:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
7:45 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	5	0	0	0	0	0	0	0	2	0	0	1	0	1	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	5	0	0	0	0	0	0	0	1	1	0	0	0	0	0
8:45 AM	0	9	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	1	1	0	0	0	0	1	0	0	3	0	0	2	0	0	0
9:15 AM	0	3	0	0	0	0	0	0	0	3	1	0	1	0	1	0
9:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0
9:45 AM	0	6	0	0	2	0	0	0	0	7	1	0	0	0	0	0
10:00 AM	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0
10:15 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	3	0	0	0	0	0	0	0	5	1	0	0	1	0	0
10:45 AM	1	4	0	0	0	0	0	0	0	6	1	0	0	1	2	0
11:00 AM	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0
11:15 AM	1	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:30 AM	0	2	0	0	0	0	1	0	2	2	1	0	0	0	0	0
11:45 AM	0	9	0	0	0	2	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	7	0	0	0	0	0	0	0	8	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	1	0	0	5	0	0	0	0	0	0
12:30 PM	0	5	0	0	0	0	1	0	0	4	0	0	0	0	0	0
12:45 PM	0	6	0	0	0	0	0	0	0	1	0	0	0	1	0	0
1:00 PM	0	3	0	0	0	0	0	0	1	2	0	0	0	0	0	0
1:15 PM	0	3	0	0	0	0	0	0	0	1	0	0	1	0	0	0
1:30 PM	0	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1:45 PM	1	3	0	0	0	0	0	0	3	5	1	0	0	0	0	0
2:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
2:30 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:45 PM	1	6	0	0	1	0	0	0	0	3	0	0	0	1	2	0
3:00 PM	0	1	0	0	0	0	0	0	2	5	0	0	0	0	0	0
3:15 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0
3:30 PM	0	3	0	0	0	0	1	0	0	5	0	0	0	0	0	0
3:45 PM	0	2	0	0	0	0	0	0	2	4	0	0	1	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
4:15 PM	0	5	0	0	0	0	0	0	0	1	0	0	1	0	0	0
4:30 PM	0	5	0	0	0	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	1	1	0	0	0	0	0	0	0	3	1	0	1	0	0	0
5:00 PM	1	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	4	0	0	0	0	1	0	0	1	0	0	0	0	0	0
5:30 PM	1	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0

Study Name **Location 50 U.S. 41 & Genesee St/Lakeshore Blvd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Southbound				Lakeshore Blvd Westbound				U.S. 41 Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	4	0	0	0	1	0	0	0	5	0	0	0	0	0	0
6:15 AM	0	2	0	0	0	0	0	0	0	6	0	0	0	0	0	0
6:30 AM	0	2	0	0	0	0	1	0	0	4	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	7	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	1	0	0	7	0	0	0	0	0	0
7:15 AM	0	3	0	0	0	0	0	0	0	3	0	0	1	0	0	0
7:30 AM	0	7	0	0	0	1	0	0	0	12	0	0	0	0	0	0
7:45 AM	0	5	0	0	0	0	0	0	0	4	0	0	0	0	0	0
8:00 AM	0	5	0	0	0	1	0	0	0	8	0	0	0	0	1	0
8:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:30 AM	0	6	0	0	0	0	0	0	0	1	0	0	1	0	1	0
8:45 AM	0	7	0	0	0	0	0	0	0	6	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	1	0	0	9	0	0	0	0	1	0
9:15 AM	0	11	0	0	0	0	0	0	0	6	0	0	0	0	0	0
9:30 AM	0	4	0	0	0	0	0	0	0	7	0	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	1	0
10:00 AM	0	4	0	0	0	1	0	0	0	3	0	0	0	0	0	0
10:15 AM	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0
10:45 AM	0	7	0	0	0	0	0	0	0	4	0	0	0	0	0	0
11:00 AM	0	5	0	0	0	0	1	0	0	6	0	0	0	0	0	0
11:15 AM	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0	0
11:30 AM	1	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:45 AM	0	4	0	0	0	0	0	0	0	5	0	0	0	0	0	0
12:00 PM	0	2	0	0	0	1	0	0	0	3	0	0	0	0	1	0
12:15 PM	1	7	0	0	0	0	0	0	0	4	0	0	0	0	0	0
12:30 PM	0	4	0	0	0	0	0	0	0	7	0	0	0	0	1	0
12:45 PM	0	3	0	0	0	0	0	0	0	7	1	0	0	0	0	0
1:00 PM	0	4	0	0	0	0	1	0	0	5	0	0	0	0	0	0
1:15 PM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1:30 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:45 PM	0	4	0	0	0	1	0	0	0	11	0	0	0	0	1	0
2:00 PM	0	5	0	0	0	1	0	0	0	5	0	0	0	0	0	0
2:15 PM	0	10	0	0	0	0	0	0	0	7	0	0	0	0	0	0
2:30 PM	1	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
2:45 PM	1	4	0	0	0	0	0	0	0	2	0	0	0	1	0	0
3:00 PM	0	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	8	0	0	0	0	0	0	0	3	0	0	0	0	1	0
3:30 PM	0	4	0	0	0	0	0	0	0	10	0	0	0	0	0	0
3:45 PM	0	8	0	0	0	0	0	0	0	4	0	0	0	0	0	0
4:00 PM	0	5	0	0	0	1	0	0	0	3	1	0	0	0	1	0
4:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	7	0	0	0	0	0	0	0	5	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	10	0	0	0	0	0	0
5:15 PM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:45 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 50 U.S. 41 & Genesee St/Lakeshore Blvd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Crossing North Leg	Lakeshore Blvd Crossing East Leg	U.S. 41 Crossing South Leg	Genesee St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	2	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	1	0
6:45 AM	0	0	0	0
7:00 AM	0	1	1	0
7:15 AM	0	0	1	0
7:30 AM	1	1	1	0
7:45 AM	0	0	1	0
8:00 AM	0	0	2	0
8:15 AM	0	0	1	0
8:30 AM	0	0	2	0
8:45 AM	0	0	1	1
9:00 AM	0	0	2	0
9:15 AM	0	0	3	0
9:30 AM	0	0	3	1
9:45 AM	1	0	1	0
10:00 AM	1	0	1	1
10:15 AM	0	0	2	0
10:30 AM	0	1	0	1
10:45 AM	0	4	0	0
11:00 AM	1	4	0	2
11:15 AM	2	6	7	2
11:30 AM	1	3	4	2
11:45 AM	0	2	3	1
12:00 PM	2	0	0	0
12:15 PM	1	1	1	3
12:30 PM	1	0	0	0
12:45 PM	0	3	4	1
1:00 PM	0	1	0	0
1:15 PM	1	0	3	4
1:30 PM	1	1	2	2
1:45 PM	0	0	4	2
2:00 PM	0	0	0	0
2:15 PM	2	2	0	3
2:30 PM	0	0	2	2
2:45 PM	0	4	1	6
3:00 PM	0	0	2	0
3:15 PM	1	1	8	5
3:30 PM	0	0	6	1
3:45 PM	0	0	0	1
4:00 PM	0	1	1	0
4:15 PM	1	0	0	1
4:30 PM	0	0	4	0
4:45 PM	0	0	4	1
5:00 PM	0	0	0	1
5:15 PM	2	2	9	0
5:30 PM	0	0	3	0
5:45 PM	0	1	4	0

Study Name **Location 50 U.S. 41 & Genesee St/Lakeshore Blvd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Crossing North Leg	Lakeshore Blvd Crossing East Leg	U.S. 41 Crossing South Leg	Genesee St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	1	0
8:30 AM	0	1	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	1	0
10:00 AM	0	1	1	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	1	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	1	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	1	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	1	0
3:00 PM	0	0	0	0
3:15 PM	0	1	0	0
3:30 PM	0	1	1	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	2	0
5:15 PM	0	0	3	0
5:30 PM	0	1	2	0
5:45 PM	0	1	3	0

Study Name **Location 50 U.S. 41 & Genesee St/Lakeshore Blvd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Southbound				Lakeshore Blvd Westbound				U.S. 41 Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	28	0	0	2	2	2	0	4	68	2	0	0	3	1	0
6:15 AM	0	34	0	0	0	1	3	0	4	93	1	0	3	0	3	0
6:30 AM	2	34	0	0	0	1	3	0	5	141	2	0	1	1	2	0
6:45 AM	4	44	0	0	1	2	5	0	11	187	3	0	5	3	8	0
7:00 AM	6	46	0	0	0	2	4	0	12	212	2	0	4	6	8	0
7:15 AM	6	69	0	0	2	2	7	0	16	216	6	0	11	8	7	0
7:30 AM	13	87	0	0	2	11	10	0	16	235	7	0	13	6	13	0
7:45 AM	13	121	0	0	0	12	9	0	18	336	6	0	12	20	28	0
8:00 AM	6	93	0	0	1	1	5	0	13	162	1	0	12	11	14	0
8:15 AM	2	82	0	0	1	4	9	0	12	176	3	0	4	8	15	0
8:30 AM	5	111	2	0	2	2	10	0	8	190	5	0	10	8	8	0
8:45 AM	12	116	2	0	1	5	9	0	15	243	1	0	1	5	16	0
9:00 AM	7	101	0	0	2	2	12	0	7	179	4	0	7	9	10	0
9:15 AM	7	116	0	0	1	5	7	0	14	165	3	0	6	6	12	0
9:30 AM	5	93	1	0	3	5	10	0	12	189	6	0	10	8	12	0
9:45 AM	12	107	0	0	2	5	11	0	8	190	4	0	13	11	12	0
10:00 AM	7	106	2	0	3	6	7	0	10	150	7	0	11	8	9	0
10:15 AM	13	117	1	0	0	6	6	0	13	138	3	0	10	3	12	0
10:30 AM	8	120	0	0	2	10	12	0	3	167	1	0	6	6	11	0
10:45 AM	12	119	1	0	5	6	11	0	5	156	11	0	12	7	13	0
11:00 AM	10	127	1	0	0	5	12	0	13	125	5	0	12	5	13	0
11:15 AM	5	126	2	0	5	2	10	0	11	139	4	0	9	5	11	0
11:30 AM	6	155	2	0	1	3	18	0	15	168	6	0	9	2	14	0
11:45 AM	16	151	4	0	2	9	14	0	6	165	3	0	16	8	13	0
12:00 PM	16	175	2	0	2	11	9	0	14	176	2	0	12	8	10	0
12:15 PM	19	163	1	0	5	6	17	0	2	158	11	0	14	5	21	0
12:30 PM	14	137	5	0	5	11	12	0	11	147	0	0	13	6	16	0
12:45 PM	10	179	2	0	3	4	16	0	13	134	6	0	18	11	21	0
1:00 PM	5	174	1	0	3	6	20	0	14	157	7	0	12	11	17	0
1:15 PM	11	151	2	0	1	8	12	0	13	147	8	0	10	7	11	0
1:30 PM	21	164	0	0	3	9	19	0	8	149	4	0	8	17	5	0
1:45 PM	9	154	0	0	3	13	13	0	10	174	8	0	9	14	12	0
2:00 PM	21	161	2	0	5	9	9	0	12	169	7	0	3	11	10	0
2:15 PM	12	181	3	0	1	7	24	0	9	170	7	0	0	4	10	0
2:30 PM	10	179	2	0	1	6	21	0	11	151	2	0	13	10	12	0
2:45 PM	14	164	2	0	3	8	8	0	13	134	1	0	12	8	17	0
3:00 PM	14	191	1	0	1	11	23	0	17	140	7	0	10	6	20	0
3:15 PM	12	191	1	0	8	8	22	0	18	142	6	0	6	4	15	0
3:30 PM	16	204	1	0	3	17	21	0	10	159	8	0	8	7	13	0
3:45 PM	13	222	1	0	3	17	21	0	14	130	4	0	10	13	6	0
4:00 PM	17	250	2	0	2	22	27	0	9	196	6	0	16	14	6	0
4:15 PM	9	251	1	0	2	10	22	0	16	141	5	0	18	10	5	0
4:30 PM	17	270	3	0	2	6	29	0	14	181	10	0	7	8	8	0
4:45 PM	23	223	0	0	0	13	16	0	21	195	10	0	15	12	20	0
5:00 PM	23	278	2	0	7	11	28	0	13	177	8	0	17	10	18	0
5:15 PM	14	263	2	0	4	15	29	0	11	173	5	0	11	8	18	0
5:30 PM	12	201	2	0	5	15	24	0	12	179	4	0	15	14	22	0
5:45 PM	10	217	2	0	0	9	23	0	11	162	7	0	11	7	16	0

Study Name **Location 51 Division St & Genesee St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southbound				Genesee St Westbound				Division St Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	1	0	0	2	5	0	9	1	0	0	0	0	0	0
6:15 AM	0	1	1	0	0	0	3	0	10	1	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	3	0	12	0	1	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	6	0	25	2	1	0	0	4	0	0
7:00 AM	0	2	1	0	0	0	7	0	25	2	0	0	0	0	0	0
7:15 AM	0	6	0	0	1	1	12	0	28	3	0	0	0	5	0	0
7:30 AM	0	2	5	0	1	3	30	0	48	3	0	0	0	1	0	0
7:45 AM	0	2	2	0	1	2	20	0	96	4	2	0	2	8	0	0
8:00 AM	0	2	3	0	0	2	12	0	29	0	1	0	2	4	0	0
8:15 AM	0	1	2	0	0	1	13	0	25	1	1	0	0	2	0	0
8:30 AM	0	3	0	0	0	2	7	0	35	2	1	0	2	1	0	0
8:45 AM	0	3	3	0	1	3	19	0	42	2	0	0	0	2	0	0
9:00 AM	0	1	2	0	0	1	13	0	26	3	1	0	0	2	0	0
9:15 AM	0	2	1	0	0	4	14	0	20	2	0	0	1	1	0	0
9:30 AM	1	1	0	0	0	1	25	0	31	1	2	0	0	2	0	0
9:45 AM	0	3	1	0	1	0	17	0	28	4	0	0	1	4	0	0
10:00 AM	0	2	1	0	0	2	22	0	31	3	0	0	2	3	0	0
10:15 AM	0	0	0	0	0	2	14	0	18	3	0	0	0	1	0	0
10:30 AM	0	2	0	0	0	4	25	0	23	2	0	0	0	3	0	0
10:45 AM	0	4	2	0	0	1	21	0	32	1	2	0	0	2	0	0
11:00 AM	0	2	1	0	0	1	16	0	27	1	1	0	1	1	0	0
11:15 AM	0	0	2	0	4	1	28	0	39	0	0	0	2	2	0	0
11:30 AM	0	1	2	0	2	4	27	0	31	4	1	0	0	5	0	0
11:45 AM	0	0	0	0	1	7	33	0	36	2	0	0	2	7	0	0
12:00 PM	0	3	4	0	1	1	32	0	32	3	1	0	0	2	0	0
12:15 PM	0	2	1	0	1	3	25	0	25	3	0	0	1	5	0	0
12:30 PM	0	3	0	0	2	5	21	0	33	4	0	0	1	4	0	0
12:45 PM	0	1	3	0	0	1	24	0	34	2	2	0	0	4	0	0
1:00 PM	0	4	3	0	0	1	24	0	33	1	1	0	0	3	1	0
1:15 PM	0	0	1	0	0	1	30	0	28	1	0	0	1	2	0	0
1:30 PM	0	3	1	0	0	4	16	0	31	2	1	0	1	1	0	0
1:45 PM	0	2	2	0	3	1	25	0	33	6	0	0	1	5	1	0
2:00 PM	0	1	2	0	1	3	30	0	28	3	0	0	0	4	0	0
2:15 PM	0	3	1	0	1	4	29	0	33	4	4	0	0	3	1	0
2:30 PM	3	4	1	0	1	1	33	2	31	3	0	0	1	3	1	0
2:45 PM	0	2	3	0	6	5	34	0	42	3	0	0	1	5	0	0
3:00 PM	1	3	0	0	0	3	36	0	43	4	3	0	0	1	0	0
3:15 PM	0	1	0	0	1	6	28	0	34	1	0	0	2	3	0	0
3:30 PM	0	6	2	0	1	3	30	0	36	0	2	0	1	7	0	0
3:45 PM	0	3	5	0	0	2	43	0	36	5	5	0	0	2	0	0
4:00 PM	0	7	2	0	2	2	39	0	43	6	1	0	1	3	0	0
4:15 PM	0	4	2	0	1	4	39	0	32	8	3	0	0	2	0	0
4:30 PM	0	5	1	0	2	4	39	0	46	1	2	0	0	4	0	0
4:45 PM	0	4	0	0	1	7	31	0	54	6	0	0	1	8	0	0
5:00 PM	0	6	0	0	1	7	55	0	34	2	0	0	1	1	1	0
5:15 PM	0	8	3	0	2	4	35	0	36	3	1	0	4	3	0	0
5:30 PM	0	6	0	0	2	10	41	0	30	1	1	1	0	7	0	0
5:45 PM	0	4	5	0	2	1	31	0	36	5	1	0	0	4	1	0

Study Name **Location 51 Division St & Genesee St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southbound				Genesee St Westbound				Division St Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:00 AM	0	0	0	0	0	0	4	0	2	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	1	0	0
8:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	2	0	2	0	0	0	1	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	1	0	0	0	0	0	4	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
1:00 PM	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0
1:15 PM	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 51 Division St & Genesee St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southbound				Genesee St Westbound				Division St Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 51 Division St & Genesee St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Crossing North Leg	Genesee St Crossing East Leg	Division St Crossing South Leg	Genesee St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	1	0
6:45 AM	0	0	2	0
7:00 AM	0	0	0	0
7:15 AM	0	1	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	1	0	0
9:00 AM	0	0	0	0
9:15 AM	0	1	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	1	1
10:15 AM	0	0	0	0
10:30 AM	2	0	0	0
10:45 AM	0	0	0	0
11:00 AM	1	2	1	0
11:15 AM	0	2	0	0
11:30 AM	0	1	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	2	0
12:45 PM	0	0	2	0
1:00 PM	0	1	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	1	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	1
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	1	0	0	0
3:30 PM	0	1	0	2
3:45 PM	0	0	0	0
4:00 PM	1	0	0	1
4:15 PM	0	0	2	0
4:30 PM	0	0	0	0
4:45 PM	0	0	2	0
5:00 PM	0	0	1	0
5:15 PM	1	1	0	0
5:30 PM	0	0	1	1
5:45 PM	0	0	0	1

Study Name **Location 51 Division St & Genesee St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southbound				Genesee St Westbound				Division St Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	1	0	0	2	6	0	9	2	0	0	0	0	0	0
6:15 AM	0	1	1	0	0	0	3	0	10	1	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	3	0	12	0	1	0	0	0	0	0
6:45 AM	1	1	0	0	0	0	6	0	25	2	1	0	0	4	1	0
7:00 AM	0	2	1	0	0	0	11	0	27	2	0	0	0	0	0	0
7:15 AM	0	6	0	0	1	2	12	0	29	3	0	0	0	7	0	0
7:30 AM	0	2	5	0	1	4	33	0	48	3	0	0	0	2	0	0
7:45 AM	0	2	2	0	1	2	20	0	97	4	2	0	2	8	0	0
8:00 AM	0	2	3	0	0	2	16	0	31	0	1	0	2	5	0	0
8:15 AM	0	1	2	0	0	1	14	0	26	1	1	0	0	2	0	0
8:30 AM	0	4	0	0	0	2	7	0	35	2	1	0	2	1	0	0
8:45 AM	0	3	3	0	1	3	19	0	42	2	0	0	0	2	0	0
9:00 AM	0	1	2	0	0	1	15	0	28	3	1	0	1	2	0	0
9:15 AM	0	3	1	0	0	4	14	0	20	2	0	0	1	1	0	0
9:30 AM	1	1	0	0	0	1	25	0	31	1	2	0	0	2	0	0
9:45 AM	0	3	1	0	1	0	18	0	32	4	0	0	1	4	0	0
10:00 AM	0	2	1	0	0	2	24	0	32	3	0	0	2	3	0	0
10:15 AM	0	0	0	0	0	2	14	0	18	3	0	0	0	1	0	0
10:30 AM	0	2	0	0	0	4	25	0	24	2	0	0	0	3	0	0
10:45 AM	0	4	2	0	0	1	22	0	33	1	2	0	0	2	0	0
11:00 AM	0	2	1	0	0	1	17	0	27	1	1	0	1	1	0	0
11:15 AM	0	0	2	0	4	1	30	0	39	0	0	0	2	2	0	0
11:30 AM	0	1	3	0	2	4	27	0	35	4	1	0	0	5	0	0
11:45 AM	0	0	0	0	1	7	35	0	39	2	0	0	2	7	0	0
12:00 PM	0	3	4	0	1	1	34	0	33	3	1	0	0	3	0	0
12:15 PM	0	2	1	0	1	4	26	0	26	3	0	0	1	5	1	0
12:30 PM	0	3	0	0	2	5	21	0	33	5	0	0	1	4	0	0
12:45 PM	0	1	3	0	0	2	24	0	34	2	2	0	0	6	0	0
1:00 PM	1	4	4	0	1	2	24	0	33	1	1	0	0	3	1	0
1:15 PM	1	0	1	0	0	1	33	0	28	1	0	0	1	2	0	0
1:30 PM	0	3	1	0	0	4	17	0	31	2	1	0	1	1	0	0
1:45 PM	0	2	2	0	3	1	26	0	33	6	0	0	1	5	1	0
2:00 PM	0	1	2	0	1	3	30	0	29	3	0	0	0	4	0	0
2:15 PM	0	3	1	0	1	4	30	0	33	4	4	0	0	3	1	0
2:30 PM	3	4	1	0	1	1	36	2	32	3	0	0	1	3	1	0
2:45 PM	0	2	3	0	6	5	35	0	44	4	0	0	1	5	0	0
3:00 PM	1	3	0	0	0	3	38	0	44	4	3	0	0	1	0	0
3:15 PM	0	1	0	0	1	6	29	0	34	1	0	0	2	4	0	0
3:30 PM	0	6	2	0	1	3	30	0	36	0	2	0	1	7	0	0
3:45 PM	0	3	5	0	0	2	43	0	37	6	5	0	0	2	0	0
4:00 PM	0	7	2	0	2	2	39	0	45	6	2	0	1	3	0	0
4:15 PM	0	4	2	0	1	5	40	0	32	8	3	0	0	2	0	0
4:30 PM	0	5	1	0	2	4	41	0	48	1	2	0	0	4	0	0
4:45 PM	0	4	0	0	1	7	32	0	54	6	0	0	1	8	0	0
5:00 PM	0	6	0	0	1	7	55	0	34	2	0	0	1	1	1	0
5:15 PM	0	8	3	0	2	4	35	0	36	3	1	0	4	3	0	0
5:30 PM	0	6	0	0	2	10	42	0	30	1	1	1	0	7	0	0
5:45 PM	0	4	5	0	2	1	31	0	36	6	1	0	0	4	1	0

Study Name **Location 52 Altamont St & Genesee St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Genesee St Westbound				Altamont St Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	8	0	0	0	0	0	0
6:15 AM	0	4	2	0	0	0	0	0	0	8	0	0	0	0	0	0
6:30 AM	0	2	1	0	1	0	0	0	0	12	0	0	0	0	0	0
6:45 AM	1	3	0	0	2	0	0	0	0	9	0	0	0	0	1	0
7:00 AM	0	14	1	0	1	0	2	0	0	22	0	0	1	2	0	0
7:15 AM	2	25	0	0	1	0	1	0	0	33	0	0	0	0	1	0
7:30 AM	0	43	0	0	1	0	3	0	0	71	0	0	0	0	0	0
7:45 AM	3	35	5	0	2	0	0	0	0	82	0	0	1	1	1	0
8:00 AM	0	3	1	0	1	0	0	0	0	27	0	0	1	0	0	0
8:15 AM	1	9	4	0	1	0	0	0	1	18	0	0	0	0	2	0
8:30 AM	0	6	2	0	5	0	0	0	0	21	0	0	0	0	0	0
8:45 AM	0	14	3	0	2	0	0	0	0	18	0	0	0	0	1	0
9:00 AM	0	8	2	0	3	0	0	0	0	10	0	0	0	1	0	0
9:15 AM	1	10	0	0	3	0	1	0	0	17	0	0	0	0	0	0
9:30 AM	0	4	0	0	1	0	1	0	0	18	0	0	0	0	0	0
9:45 AM	0	9	3	0	2	0	0	0	0	14	2	0	0	0	1	0
10:00 AM	0	11	1	0	2	0	0	0	0	11	0	0	0	0	0	0
10:15 AM	0	8	1	0	4	0	0	0	0	13	0	0	0	0	0	0
10:30 AM	1	13	2	0	4	0	1	0	0	13	0	0	0	0	0	0
10:45 AM	1	15	0	0	7	0	0	0	1	13	0	0	0	0	0	0
11:00 AM	0	18	3	0	2	0	1	0	0	12	0	0	0	0	2	0
11:15 AM	0	20	4	0	3	0	0	0	0	16	0	0	0	1	1	0
11:30 AM	0	10	2	0	0	0	0	0	0	11	0	0	0	0	0	0
11:45 AM	0	18	6	0	5	1	0	0	2	12	0	0	0	0	1	0
12:00 PM	0	18	4	0	4	0	1	0	0	17	0	0	0	0	2	0
12:15 PM	1	22	3	0	6	0	0	0	0	12	1	0	0	2	0	0
12:30 PM	2	19	1	0	2	0	0	0	0	14	0	0	1	0	1	0
12:45 PM	2	21	5	0	4	0	0	0	0	16	0	0	0	2	2	0
1:00 PM	2	13	6	0	3	1	2	0	0	17	1	0	1	0	1	0
1:15 PM	3	12	3	0	5	1	0	0	0	17	1	0	0	0	0	0
1:30 PM	0	12	1	0	3	1	0	0	0	14	0	0	1	0	2	0
1:45 PM	0	11	2	0	4	0	2	0	2	14	1	0	0	0	0	0
2:00 PM	1	12	3	0	3	0	1	0	1	13	0	0	0	1	1	0
2:15 PM	1	30	4	0	5	0	0	0	1	16	1	0	0	0	2	0
2:30 PM	0	44	4	0	1	1	0	0	0	18	0	0	0	0	0	0
2:45 PM	0	26	3	0	10	1	1	0	1	53	0	0	0	0	1	0
3:00 PM	0	28	1	0	2	1	2	0	1	20	0	0	0	0	0	0
3:15 PM	1	30	6	0	1	1	2	0	0	27	0	0	0	0	0	0
3:30 PM	2	22	4	0	5	0	1	0	1	18	0	0	0	2	0	0
3:45 PM	0	17	7	0	4	0	0	0	1	16	0	0	0	1	1	0
4:00 PM	3	21	11	0	3	0	0	0	1	12	0	0	0	0	0	0
4:15 PM	0	20	3	0	4	1	0	0	1	7	0	0	1	1	0	0
4:30 PM	2	20	1	0	3	3	3	0	0	14	0	0	0	0	0	0
4:45 PM	1	28	7	0	4	2	1	0	1	18	0	0	0	0	0	0
5:00 PM	2	32	4	0	2	1	1	0	3	21	0	0	0	0	2	0
5:15 PM	1	28	2	0	3	0	0	0	1	30	0	0	0	0	1	0
5:30 PM	1	17	2	0	3	0	3	0	1	12	0	0	0	1	0	0
5:45 PM	0	30	2	0	4	1	1	0	1	13	0	0	0	1	0	0

Study Name **Location 52 Altamont St & Genesee St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Genesee St Westbound				Altamont St Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 52 Altamont St & Genesee St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Genesee St Westbound				Altamont St Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	7	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	4	0	0	0	0	0	0	1	2	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 52 Altamont St & Genesee St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Crossing North Leg	Genesee St Crossing East Leg	Altamont St Crossing South Leg	Genesee St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	1
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	2	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	1
12:00 PM	0	1	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	1	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	1
2:00 PM	0	0	1	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	1
2:45 PM	0	0	0	1
3:00 PM	0	0	0	4
3:15 PM	0	0	0	6
3:30 PM	0	0	1	1
3:45 PM	0	0	0	1
4:00 PM	0	0	0	0
4:15 PM	0	0	1	0
4:30 PM	0	0	2	2
4:45 PM	0	0	1	1
5:00 PM	0	0	0	2
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Location 52.xls

Study Name **Location 52 Altamont St & Genesee St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Crossing North Leg	Genesee St Crossing East Leg	Altamont St Crossing South Leg	Genesee St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	2
3:45 PM	0	0	0	0
4:00 PM	0	0	0	1
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	2
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0

Study Name **Location 52 Altamont St & Genesee St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Genesee St Westbound				Altamont St Northbound				Genesee St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	8	0	0	0	0	0	0
6:15 AM	0	4	2	0	0	0	0	0	0	8	0	0	0	0	0	0
6:30 AM	0	2	1	0	1	0	0	0	0	12	0	0	0	0	0	0
6:45 AM	1	3	0	0	2	0	0	0	0	10	0	0	0	0	1	0
7:00 AM	0	14	1	0	1	0	2	0	0	24	0	0	1	2	0	0
7:15 AM	2	25	0	0	1	0	1	0	0	33	0	0	0	0	1	0
7:30 AM	0	50	0	0	1	0	3	0	0	72	0	0	0	0	0	0
7:45 AM	3	35	6	0	2	0	0	0	0	86	0	0	1	1	1	0
8:00 AM	0	3	1	0	1	0	0	0	0	29	0	0	1	0	0	0
8:15 AM	1	9	4	0	1	0	0	0	1	18	0	0	0	0	2	0
8:30 AM	0	6	2	0	5	0	0	0	0	21	0	0	0	0	0	0
8:45 AM	1	14	3	0	2	0	0	0	0	18	0	0	0	0	1	0
9:00 AM	0	11	2	0	3	0	0	0	0	11	0	0	0	1	0	0
9:15 AM	1	10	0	0	3	0	1	0	0	20	0	0	0	0	0	0
9:30 AM	0	4	0	0	1	0	1	0	0	18	0	0	0	0	0	0
9:45 AM	0	11	3	0	2	0	0	0	0	14	2	0	0	0	1	0
10:00 AM	0	11	1	0	2	0	0	0	0	12	0	0	0	0	0	0
10:15 AM	0	8	1	0	4	0	0	0	0	13	0	0	0	0	0	0
10:30 AM	1	13	2	0	4	0	1	0	0	13	0	0	0	0	0	0
10:45 AM	1	16	0	0	7	0	0	0	1	14	0	0	0	0	0	0
11:00 AM	0	18	3	0	2	0	1	0	0	12	0	0	0	0	2	0
11:15 AM	0	20	4	0	3	0	0	0	0	17	0	0	0	1	1	0
11:30 AM	0	10	2	0	0	0	0	0	0	11	0	0	0	0	0	0
11:45 AM	0	18	6	0	5	1	0	0	2	12	0	0	0	0	1	0
12:00 PM	0	18	4	0	4	0	1	0	0	18	0	0	0	0	2	0
12:15 PM	1	22	3	0	6	0	0	0	1	12	1	0	0	2	0	0
12:30 PM	2	20	1	0	2	0	0	0	0	14	0	0	1	0	1	0
12:45 PM	2	21	5	0	4	0	0	0	0	16	0	0	0	2	2	0
1:00 PM	2	13	6	0	3	1	2	0	0	17	1	0	1	0	1	0
1:15 PM	3	12	3	0	5	1	0	0	0	18	1	0	0	0	0	0
1:30 PM	0	12	1	0	3	1	0	0	0	14	0	0	1	0	2	0
1:45 PM	0	11	2	0	4	0	2	0	2	14	1	0	0	0	0	0
2:00 PM	1	13	3	0	3	0	1	0	1	14	0	0	0	1	1	0
2:15 PM	1	31	4	0	5	0	0	0	1	16	1	0	0	0	2	0
2:30 PM	0	52	4	0	1	1	0	0	0	18	0	0	0	0	0	0
2:45 PM	0	30	3	0	10	1	1	0	2	55	0	0	0	0	1	0
3:00 PM	0	28	1	0	2	1	2	0	1	22	0	0	0	0	1	0
3:15 PM	1	30	6	0	1	1	2	0	0	28	0	0	0	0	0	0
3:30 PM	2	22	4	0	5	0	1	0	1	18	0	0	0	2	0	0
3:45 PM	0	17	7	0	4	0	0	0	1	16	0	0	0	1	1	0
4:00 PM	3	21	11	0	3	0	0	0	1	12	0	0	0	0	0	0
4:15 PM	0	20	4	0	4	2	0	0	1	9	0	0	1	1	0	0
4:30 PM	2	20	1	0	3	3	3	0	0	14	0	0	0	0	0	0
4:45 PM	1	28	7	0	4	2	1	0	1	18	0	0	0	0	0	0
5:00 PM	2	32	4	0	2	1	1	0	3	21	0	0	0	0	2	0
5:15 PM	1	28	2	0	3	0	0	0	1	31	0	0	0	0	1	0
5:30 PM	1	17	2	0	3	0	3	0	1	12	0	0	0	1	0	0
5:45 PM	0	30	2	0	4	1	1	0	1	13	0	0	0	1	0	0

Study Name **Location 53 Altamont St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Hampton St Westbound				Altamont St Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	2	0	0
6:15 AM	2	2	0	0	1	0	0	0	0	2	0	0	0	2	4	0
6:30 AM	0	1	1	0	3	0	0	0	1	4	0	0	0	0	2	0
6:45 AM	0	2	0	0	2	4	0	0	1	0	0	0	0	0	2	0
7:00 AM	3	1	1	0	0	4	0	0	0	7	0	0	0	0	4	0
7:15 AM	4	2	1	0	4	16	2	0	0	10	0	0	1	6	10	0
7:30 AM	3	2	4	0	10	89	0	0	1	10	4	0	1	25	18	0
7:45 AM	3	2	3	0	3	26	1	0	2	8	0	0	1	45	18	0
8:00 AM	0	2	1	0	5	4	3	0	1	5	0	0	0	2	1	0
8:15 AM	0	3	1	0	4	1	0	0	0	2	0	0	0	0	6	0
8:30 AM	0	2	2	0	3	1	1	0	0	7	0	0	0	0	2	0
8:45 AM	0	8	2	0	2	0	1	0	0	4	0	0	0	1	3	0
9:00 AM	1	2	2	0	2	1	1	0	3	3	0	0	0	1	0	0
9:15 AM	1	2	2	0	3	4	0	0	0	1	3	0	1	4	4	1
9:30 AM	0	2	2	0	1	0	1	0	0	4	0	0	0	2	3	0
9:45 AM	1	0	1	0	2	2	0	0	4	7	0	0	0	0	3	0
10:00 AM	2	0	6	0	1	3	1	0	0	0	0	0	0	2	0	0
10:15 AM	0	1	1	0	2	1	0	0	0	2	0	0	0	3	2	0
10:30 AM	0	3	2	0	6	3	0	0	0	2	0	0	0	1	0	0
10:45 AM	3	5	2	0	3	2	1	0	1	3	1	0	0	2	2	0
11:00 AM	3	3	4	0	1	3	0	0	1	2	0	0	0	2	1	0
11:15 AM	1	6	1	0	2	0	0	0	1	2	0	0	0	5	1	0
11:30 AM	0	2	1	0	5	3	1	0	1	3	0	0	1	1	0	0
11:45 AM	2	1	5	0	3	1	0	0	1	4	0	0	0	1	1	0
12:00 PM	2	3	4	0	0	4	0	0	4	2	0	0	0	1	2	0
12:15 PM	3	3	5	0	2	4	3	0	0	1	0	0	0	1	1	0
12:30 PM	0	4	4	0	2	1	3	0	3	5	0	0	0	0	2	0
12:45 PM	1	2	2	0	2	3	0	0	0	1	0	0	1	2	1	0
1:00 PM	3	8	1	0	3	3	1	0	3	4	0	0	1	4	0	0
1:15 PM	3	4	6	0	3	2	1	0	0	4	0	0	1	2	6	0
1:30 PM	1	2	0	0	2	0	2	0	4	5	0	0	1	1	0	0
1:45 PM	1	9	1	0	6	5	0	0	3	6	1	0	0	1	0	0
2:00 PM	0	2	2	0	4	4	1	0	0	2	0	0	0	4	1	0
2:15 PM	4	5	7	0	2	8	0	0	1	3	0	0	0	3	2	0
2:30 PM	2	10	4	0	2	14	1	0	0	6	0	0	0	2	1	0
2:45 PM	1	4	2	0	1	5	0	0	0	6	1	0	1	33	8	0
3:00 PM	3	1	8	0	2	2	0	0	2	5	0	0	0	10	0	0
3:15 PM	4	4	10	0	3	4	0	0	1	5	0	0	0	2	2	0
3:30 PM	1	11	3	0	3	4	2	0	0	4	0	0	0	5	1	0
3:45 PM	2	1	2	0	2	3	1	0	1	2	0	0	0	7	6	0
4:00 PM	2	5	4	0	1	2	1	0	1	3	0	0	0	5	2	0
4:15 PM	0	6	4	0	5	4	1	0	2	0	0	0	0	4	3	0
4:30 PM	5	6	4	0	1	8	5	0	1	8	0	0	0	3	1	0
4:45 PM	2	4	1	0	4	8	2	0	2	8	1	0	0	3	0	0
5:00 PM	3	7	5	0	3	4	1	0	2	4	0	0	0	8	4	0
5:15 PM	6	5	8	0	3	4	1	0	5	7	0	0	0	6	1	0
5:30 PM	3	6	3	0	2	3	2	0	2	4	0	0	0	9	0	0
5:45 PM	4	13	7	0	3	3	1	0	0	1	0	0	1	3	0	0

Study Name **Location 53 Altamont St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Hampton St Westbound				Altamont St Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 53 Altamont St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Hampton St Westbound				Altamont St Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 53 Altamont St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Crossing North Leg	Hampton St Crossing East Leg	Altamont St Crossing South Leg	Hampton St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	2	0	0	0
10:00 AM	0	1	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	1	2	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	1	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	1	0	0	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	1	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 53 Altamont St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Crossing North Leg	Hampton St Crossing East Leg	Altamont St Crossing South Leg	Hampton St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 53 Altamont St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound				Hampton St Westbound				Altamont St Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	2	0	0
6:15 AM	2	2	0	0	1	0	0	0	0	2	0	0	0	2	4	0
6:30 AM	0	1	1	0	3	0	0	0	1	4	0	0	0	0	2	0
6:45 AM	0	2	0	0	2	4	0	0	1	0	0	0	0	0	2	0
7:00 AM	4	1	1	0	0	4	0	0	0	8	0	0	0	0	5	0
7:15 AM	4	2	1	0	4	16	2	0	0	10	0	0	1	6	10	0
7:30 AM	3	2	4	0	10	91	0	0	1	11	4	0	1	25	18	0
7:45 AM	3	2	3	0	3	26	1	0	2	8	0	0	1	46	19	0
8:00 AM	0	2	1	0	5	4	3	0	1	7	0	0	0	2	1	0
8:15 AM	0	3	1	0	4	1	0	0	1	2	0	0	0	0	6	0
8:30 AM	0	2	2	0	3	1	1	0	0	7	0	0	0	0	2	0
8:45 AM	1	8	2	0	2	0	1	0	0	4	0	0	0	1	3	0
9:00 AM	1	3	2	0	2	1	1	0	3	4	0	0	0	1	0	0
9:15 AM	1	2	2	0	4	4	0	0	0	2	3	0	1	4	4	1
9:30 AM	0	2	2	0	1	0	1	0	0	4	0	0	0	2	3	0
9:45 AM	2	1	1	0	2	2	0	0	4	7	0	0	0	0	3	0
10:00 AM	2	0	6	0	1	3	1	0	0	1	0	0	0	2	0	0
10:15 AM	0	1	1	0	2	1	0	0	0	2	0	0	0	3	2	0
10:30 AM	0	3	2	0	6	3	0	0	0	2	0	0	0	1	0	0
10:45 AM	3	5	2	0	3	2	1	0	1	3	1	0	0	3	2	0
11:00 AM	3	3	4	0	1	3	0	0	1	3	0	0	0	2	1	0
11:15 AM	1	6	1	0	2	0	0	0	1	2	0	0	0	5	1	0
11:30 AM	0	2	1	0	5	3	1	0	2	3	0	0	1	1	0	0
11:45 AM	2	1	5	0	3	1	0	0	1	4	0	0	0	1	1	0
12:00 PM	2	3	4	0	0	4	0	0	4	3	0	0	0	1	2	0
12:15 PM	3	3	5	0	2	4	3	0	0	2	0	0	0	1	1	0
12:30 PM	0	4	4	0	2	1	3	0	3	5	0	0	0	0	2	0
12:45 PM	1	2	2	0	2	3	0	0	0	1	0	0	1	2	1	0
1:00 PM	3	8	1	0	3	3	1	0	3	4	0	0	1	4	0	0
1:15 PM	3	4	6	0	3	2	1	0	0	5	0	0	1	2	6	0
1:30 PM	1	2	0	0	2	0	2	0	4	5	0	0	1	1	0	0
1:45 PM	1	9	1	0	6	5	0	0	3	6	1	0	0	1	0	0
2:00 PM	0	2	2	0	4	4	1	0	0	3	0	0	0	4	1	0
2:15 PM	4	5	7	0	2	8	0	0	1	3	0	0	0	3	2	0
2:30 PM	3	10	4	0	2	16	1	0	0	6	0	0	0	2	1	0
2:45 PM	1	4	2	0	1	5	0	0	0	7	1	0	1	37	9	0
3:00 PM	3	1	8	0	2	2	0	0	2	6	0	0	0	10	0	0
3:15 PM	4	4	11	0	3	4	0	0	1	5	0	0	0	2	2	0
3:30 PM	1	11	3	0	3	4	2	0	0	4	0	0	0	5	1	0
3:45 PM	2	1	2	0	2	3	1	0	1	2	0	0	0	8	6	0
4:00 PM	2	5	4	0	1	2	1	0	1	5	0	0	0	5	2	0
4:15 PM	0	6	4	0	5	4	1	0	2	0	0	0	0	4	3	0
4:30 PM	5	6	4	0	1	8	5	0	1	8	0	0	0	3	1	0
4:45 PM	2	4	1	0	4	8	2	0	2	8	1	0	0	3	0	0
5:00 PM	3	7	5	0	3	4	1	0	2	4	0	0	0	8	4	0
5:15 PM	6	5	8	0	3	4	1	0	5	8	0	0	0	6	1	0
5:30 PM	3	6	3	0	2	3	2	0	2	4	0	0	0	9	0	0
5:45 PM	4	13	7	0	3	3	1	0	0	1	0	0	1	3	0	0

53 - Altamont Street and Hampton Street

Average Daily Traffic Calculations

Based on 10% K factor using
PM Peak Hour Traffic

Intersection Approach	Total Approach Volume (PM Peak Hour)	Average Daily Traffic
SB Altamont	56	600
NB Altamont	39	400
EB Hampton	26	300
WB Hampton	44	500

Location 53.xls

Study Name **Location 54 Division St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southbound				Hampton St Westbound				Division St Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	3	0	0	1	0	1	0	0	8	0	0	0	3	1	0
6:15 AM	0	5	1	0	0	0	0	0	1	8	0	0	0	1	2	0
6:30 AM	1	10	0	0	4	1	1	0	4	10	1	0	0	0	1	0
6:45 AM	0	9	1	0	4	1	0	0	1	18	4	0	1	0	2	0
7:00 AM	0	9	2	0	2	2	0	0	0	23	3	0	0	1	0	0
7:15 AM	1	12	2	0	3	10	0	0	0	24	10	0	1	3	2	0
7:30 AM	14	7	4	0	7	19	1	0	2	40	68	0	8	13	5	0
7:45 AM	2	20	5	0	8	10	3	0	3	64	17	0	13	24	15	0
8:00 AM	2	7	0	0	1	3	3	0	2	29	4	0	0	2	3	0
8:15 AM	1	10	2	0	4	2	0	0	0	16	2	0	1	2	2	0
8:30 AM	0	9	1	0	6	1	2	0	1	23	1	0	1	1	0	0
8:45 AM	1	22	6	0	6	1	4	0	2	38	1	0	0	1	2	0
9:00 AM	1	8	1	0	4	1	2	0	2	15	1	0	0	5	0	0
9:15 AM	3	15	2	0	2	4	2	0	1	25	0	0	1	3	3	0
9:30 AM	0	9	2	0	3	1	2	0	1	25	1	0	3	2	1	0
9:45 AM	0	14	4	0	8	4	2	0	4	18	2	0	1	1	5	0
10:00 AM	2	13	4	0	5	2	3	0	0	25	1	0	3	5	1	0
10:15 AM	0	15	6	0	4	2	3	0	2	14	2	0	1	3	0	0
10:30 AM	2	14	5	1	6	4	2	0	4	20	3	0	2	1	1	0
10:45 AM	1	15	3	1	2	3	2	0	2	29	0	0	0	4	0	0
11:00 AM	2	15	4	0	6	1	2	0	0	23	1	1	2	3	0	0
11:15 AM	0	10	1	1	5	1	2	0	1	16	0	0	1	6	2	0
11:30 AM	2	22	4	0	7	6	4	0	4	24	0	0	0	2	2	0
11:45 AM	0	25	3	0	5	3	2	0	3	26	3	0	2	4	1	0
12:00 PM	0	27	4	0	9	4	2	0	2	30	0	0	4	1	4	0
12:15 PM	6	19	5	0	12	6	6	0	1	21	0	0	5	1	3	0
12:30 PM	4	27	4	0	7	2	4	0	4	29	1	0	1	3	6	0
12:45 PM	1	15	7	0	10	2	1	0	1	37	1	0	3	1	3	0
1:00 PM	3	18	1	0	4	2	1	0	2	21	1	0	2	2	4	0
1:15 PM	2	16	2	0	7	1	1	0	1	30	2	0	1	5	3	0
1:30 PM	2	21	4	0	7	1	3	0	0	31	1	0	1	3	4	0
1:45 PM	1	16	6	0	4	5	3	0	4	29	6	0	0	1	5	0
2:00 PM	1	24	8	0	9	4	2	0	2	17	5	0	0	2	2	0
2:15 PM	2	18	7	0	11	9	3	0	2	24	1	0	3	3	3	0
2:30 PM	5	19	9	0	5	5	0	0	1	30	8	0	1	1	2	0
2:45 PM	1	29	7	0	6	2	5	0	1	24	3	0	7	15	7	0
3:00 PM	1	32	3	0	5	3	2	0	1	20	1	0	4	8	6	0
3:15 PM	2	24	6	0	5	4	5	0	2	23	3	0	4	9	2	0
3:30 PM	6	38	4	0	9	2	4	0	2	21	2	0	3	4	1	0
3:45 PM	4	35	13	0	7	3	6	0	2	32	1	0	2	5	6	0
4:00 PM	1	55	4	1	13	1	5	0	1	31	1	0	5	5	3	0
4:15 PM	2	29	8	0	7	4	5	0	1	34	0	0	4	2	3	0
4:30 PM	3	43	8	0	5	3	3	0	4	23	5	0	3	2	3	0
4:45 PM	5	41	12	0	14	5	6	0	2	34	5	0	2	3	3	0
5:00 PM	1	62	6	0	5	6	3	0	1	36	1	0	2	8	5	0
5:15 PM	4	34	6	0	3	5	3	0	2	37	2	0	5	3	7	0
5:30 PM	1	33	1	0	4	6	1	0	3	37	0	0	3	4	9	0
5:45 PM	1	32	3	0	3	2	0	0	1	32	3	0	3	7	3	0

Study Name **Location 54 Division St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southbound				Hampton St Westbound				Division St Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:00 AM	0	1	0	0	1	0	2	0	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 54 Division St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southbound				Hampton St Westbound				Division St Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
1:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 54 Division St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Crossing North Leg	Hampton St Crossing East Leg	Division St Crossing South Leg	Hampton St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	1
7:15 AM	0	0	0	1
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	1	1
8:15 AM	0	1	0	0
8:30 AM	0	1	0	0
8:45 AM	0	1	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	1	1
10:30 AM	0	0	0	0
10:45 AM	0	0	0	1
11:00 AM	0	1	0	0
11:15 AM	1	1	2	3
11:30 AM	0	2	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	1
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	1
2:30 PM	0	1	0	0
2:45 PM	0	0	1	0
3:00 PM	0	1	0	0
3:15 PM	0	3	0	0
3:30 PM	0	0	0	0
3:45 PM	0	2	0	2
4:00 PM	0	1	0	2
4:15 PM	1	0	0	2
4:30 PM	1	0	0	0
4:45 PM	0	2	0	0
5:00 PM	1	0	0	0
5:15 PM	0	2	0	0
5:30 PM	0	0	0	0
5:45 PM	0	1	0	0

Study Name **Location 54 Division St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Crossing North Leg	Hampton St Crossing East Leg	Division St Crossing South Leg	Hampton St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	1	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	1	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	1	0
2:15 PM	0	1	0	0
2:30 PM	0	0	0	0
2:45 PM	0	1	0	0
3:00 PM	0	1	0	0
3:15 PM	0	2	0	0
3:30 PM	0	1	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	1
5:45 PM	1	1	0	0

Study Name **Location 54 Division St & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southbound				Hampton St Westbound				Division St Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	4	0	0	1	0	1	0	0	8	0	0	0	3	1	0
6:15 AM	0	5	1	0	0	0	0	0	1	8	0	0	0	1	2	0
6:30 AM	1	10	0	0	4	1	1	0	4	10	1	0	0	0	1	0
6:45 AM	0	9	1	0	5	1	0	0	1	18	4	0	1	0	2	0
7:00 AM	0	9	2	0	2	2	0	0	0	23	3	0	0	1	0	0
7:15 AM	1	12	2	0	3	10	0	0	0	24	10	0	1	3	2	0
7:30 AM	15	8	4	0	7	19	1	0	2	40	68	0	8	13	5	0
7:45 AM	2	20	5	0	8	10	3	0	3	65	17	0	13	25	15	0
8:00 AM	2	10	0	0	1	3	3	0	2	30	4	0	0	2	3	0
8:15 AM	1	10	2	0	4	2	0	0	0	16	2	0	1	2	2	0
8:30 AM	0	9	2	0	7	1	3	0	1	26	1	0	1	1	0	0
8:45 AM	1	22	6	0	6	1	4	0	2	38	1	0	0	1	2	0
9:00 AM	1	10	1	0	4	1	2	0	2	15	1	0	0	5	0	0
9:15 AM	3	16	2	0	2	5	2	0	1	25	0	0	1	3	3	0
9:30 AM	0	9	2	0	4	1	2	0	2	26	1	0	3	2	1	0
9:45 AM	0	15	4	0	8	4	2	0	4	19	2	0	1	1	5	0
10:00 AM	2	15	4	0	5	2	3	0	0	25	1	0	3	5	1	0
10:15 AM	0	16	6	0	4	2	3	0	2	14	2	0	1	3	0	0
10:30 AM	2	14	5	1	6	5	2	0	4	20	3	0	2	1	1	0
10:45 AM	1	15	3	1	2	3	2	0	2	29	0	0	0	4	1	0
11:00 AM	2	16	4	0	7	1	4	0	0	23	1	1	2	4	0	0
11:15 AM	0	10	1	1	5	1	2	0	1	17	0	0	1	6	2	0
11:30 AM	2	22	5	0	7	6	4	0	4	24	0	0	0	2	3	0
11:45 AM	0	26	3	0	5	3	2	0	3	27	3	0	2	4	1	0
12:00 PM	0	29	4	0	9	4	2	0	2	30	0	0	4	1	4	0
12:15 PM	6	19	5	0	12	6	6	0	1	21	0	0	5	1	3	0
12:30 PM	4	27	4	0	7	2	4	0	4	29	2	0	1	3	6	0
12:45 PM	1	15	7	0	11	2	1	0	1	37	1	0	3	1	3	0
1:00 PM	3	19	1	0	4	2	1	0	2	21	1	0	2	2	4	0
1:15 PM	2	16	2	0	7	1	1	0	1	30	2	0	1	5	3	0
1:30 PM	2	22	4	0	8	1	3	0	0	32	1	0	1	4	4	0
1:45 PM	1	17	7	0	4	5	3	0	4	30	6	0	0	1	5	0
2:00 PM	1	26	8	0	9	4	2	0	2	17	5	0	0	2	2	0
2:15 PM	2	18	7	0	11	9	3	0	2	24	1	0	3	3	3	0
2:30 PM	7	19	9	0	5	5	0	0	1	30	8	0	1	1	2	0
2:45 PM	1	30	7	0	6	2	5	0	1	26	3	0	9	21	7	0
3:00 PM	1	34	3	0	5	3	2	0	1	20	1	0	4	8	6	0
3:15 PM	2	25	7	0	6	4	5	0	2	24	3	0	4	9	3	0
3:30 PM	6	38	4	0	9	2	4	0	2	21	2	0	3	4	1	0
3:45 PM	4	35	13	0	7	3	6	0	2	33	1	0	2	5	6	0
4:00 PM	1	57	4	1	13	1	5	0	2	32	1	0	5	5	3	0
4:15 PM	2	29	8	0	8	4	5	0	1	34	0	0	4	2	3	0
4:30 PM	3	44	8	0	5	3	3	0	4	23	5	0	3	2	3	0
4:45 PM	5	42	12	0	14	5	6	0	2	35	5	0	2	3	3	0
5:00 PM	1	62	6	0	5	6	3	0	1	36	1	0	2	8	5	0
5:15 PM	4	35	6	0	3	5	3	0	2	37	2	0	5	3	7	0
5:30 PM	1	33	2	0	4	6	1	0	3	37	0	0	3	4	9	0
5:45 PM	1	32	3	0	3	2	0	0	1	32	3	0	3	7	3	0

Study Name **Location 55 U.S. 41 & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Southbound				Hampton St Westbound				U.S. 41 Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	23	1	0	2	0	0	0	0	68	1	0	0	0	3	0
6:15 AM	0	31	3	0	0	0	0	0	2	94	0	0	2	1	0	0
6:30 AM	0	32	1	0	6	1	0	0	1	153	6	0	0	1	0	0
6:45 AM	0	48	5	0	0	1	0	0	2	189	5	0	0	1	0	0
7:00 AM	0	43	5	0	3	0	0	0	1	223	6	0	2	0	0	0
7:15 AM	2	70	8	0	9	0	0	0	2	217	10	0	5	0	0	0
7:30 AM	2	97	4	0	9	1	1	0	1	246	26	0	13	0	0	0
7:45 AM	5	118	7	0	7	1	0	0	3	305	10	0	22	0	5	0
8:00 AM	4	86	3	0	7	0	0	0	0	164	4	0	0	1	2	0
8:15 AM	3	89	2	0	3	0	1	0	0	191	3	0	2	1	1	0
8:30 AM	4	88	11	0	4	0	0	0	0	194	5	0	4	0	1	0
8:45 AM	5	100	3	0	6	0	0	0	0	216	6	0	2	0	1	0
9:00 AM	6	93	8	0	3	1	1	0	1	171	3	0	4	1	4	0
9:15 AM	6	100	2	0	1	0	1	0	0	156	2	0	1	0	1	0
9:30 AM	4	96	3	0	6	0	0	0	0	189	4	0	1	0	1	0
9:45 AM	5	99	3	0	5	3	0	0	2	174	2	0	3	2	2	0
10:00 AM	2	95	5	0	9	1	3	0	0	149	4	0	3	1	3	0
10:15 AM	3	121	2	0	3	0	0	0	0	121	3	0	3	1	6	0
10:30 AM	4	120	4	0	3	2	1	0	0	169	4	0	7	0	3	0
10:45 AM	4	122	4	0	10	0	0	0	1	136	5	0	6	0	3	0
11:00 AM	3	138	6	0	7	0	0	1	0	113	2	1	2	1	4	0
11:15 AM	3	134	11	0	13	0	0	0	1	151	1	0	3	1	4	0
11:30 AM	7	139	6	0	11	0	2	0	1	150	9	0	5	0	2	0
11:45 AM	2	147	7	0	12	3	0	0	0	154	2	0	6	1	3	0
12:00 PM	5	161	9	0	7	0	3	0	0	156	7	0	2	1	2	0
12:15 PM	17	166	9	0	4	0	1	0	0	143	6	0	4	0	3	0
12:30 PM	7	138	6	0	11	1	0	0	2	147	7	0	4	1	1	0
12:45 PM	6	183	12	0	8	0	0	0	5	117	3	0	6	1	2	0
1:00 PM	4	153	7	0	6	0	0	0	0	145	3	0	6	0	1	0
1:15 PM	6	143	5	0	7	0	1	0	0	141	3	0	7	1	1	0
1:30 PM	3	164	7	0	10	0	0	0	2	152	5	0	7	0	1	0
1:45 PM	6	153	5	0	8	0	0	0	0	146	5	0	7	1	2	0
2:00 PM	7	153	7	0	10	0	0	0	0	164	5	0	4	0	5	0
2:15 PM	5	194	6	0	2	1	0	0	0	167	12	0	7	0	3	0
2:30 PM	3	198	14	0	10	1	0	0	1	134	2	0	6	1	1	0
2:45 PM	4	172	5	0	13	1	0	0	0	135	2	0	14	0	1	0
3:00 PM	3	203	3	0	3	1	0	0	0	140	7	0	15	0	3	0
3:15 PM	5	217	2	0	7	1	0	0	0	136	5	0	12	0	1	0
3:30 PM	9	217	8	0	9	0	1	0	0	158	2	0	9	1	1	0
3:45 PM	4	221	8	0	2	0	1	0	0	141	7	0	10	0	7	0
4:00 PM	14	269	8	0	1	1	0	0	0	184	0	0	7	0	6	0
4:15 PM	7	255	9	0	6	1	1	0	2	154	2	0	8	1	1	0
4:30 PM	6	274	3	0	11	0	1	0	1	198	6	0	10	0	1	0
4:45 PM	6	236	9	0	8	2	0	0	0	164	6	0	13	1	1	0
5:00 PM	6	320	8	0	7	0	4	0	0	167	5	0	15	0	0	0
5:15 PM	5	264	8	0	1	1	2	0	0	173	0	0	10	1	2	0
5:30 PM	4	233	6	0	7	0	0	0	1	170	3	0	5	1	3	0
5:45 PM	3	225	4	0	9	0	0	0	1	172	2	0	9	0	4	0

Study Name **Location 55 U.S. 41 & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Southbound				Hampton St Westbound				U.S. 41 Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:45 AM	0	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	1	4	0	0	0	0	0	0
8:30 AM	1	4	0	0	1	0	0	0	0	3	0	0	0	0	0	0
8:45 AM	0	8	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:00 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	3	0	0	0	1	0	0	0	4	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0
9:45 AM	0	6	0	0	0	0	0	0	0	2	0	0	0	0	1	0
10:00 AM	1	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0
10:15 AM	0	5	0	0	2	0	0	0	0	3	0	0	0	0	0	0
10:30 AM	0	3	0	0	0	0	0	0	0	8	0	0	0	0	0	0
10:45 AM	0	4	0	0	1	0	0	0	1	6	0	0	0	0	0	0
11:00 AM	1	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0
11:15 AM	1	4	0	0	1	0	0	0	0	3	0	0	0	0	0	0
11:30 AM	0	2	0	0	2	0	0	0	0	2	0	0	0	0	0	0
11:45 AM	0	8	1	0	0	0	0	0	0	4	0	0	0	0	0	0
12:00 PM	1	3	0	0	0	0	0	0	0	5	0	0	0	0	0	0
12:15 PM	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0	0
12:30 PM	1	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:45 PM	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:15 PM	0	4	1	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	5	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1:45 PM	0	1	0	0	1	0	0	0	0	7	0	0	0	0	1	0
2:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	3	0	0	2	0	0	0	0	2	0	0	0	0	0	0
2:30 PM	0	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0
2:45 PM	0	5	1	0	0	0	0	0	0	2	0	0	0	0	0	0
3:00 PM	0	2	0	0	0	0	0	0	0	6	0	0	1	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
3:30 PM	0	3	0	0	1	0	0	0	0	4	0	0	0	0	0	0
3:45 PM	0	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0
4:00 PM	0	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:15 PM	1	5	1	0	0	0	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	4	0	0	1	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
5:00 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	1	0
5:45 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 55 U.S. 41 & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Southbound				Hampton St Westbound				U.S. 41 Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	4	0	0	3	0	0	0	4	2	0	0	0	0	0	0
6:15 AM	0	2	0	0	4	0	0	0	3	1	0	0	0	0	0	0
6:30 AM	0	3	0	0	2	0	0	0	1	1	0	0	0	0	0	0
6:45 AM	0	1	1	0	2	0	0	0	0	8	1	0	0	0	0	0
7:00 AM	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0
7:15 AM	0	2	4	0	1	0	0	0	0	2	0	0	0	0	0	0
7:30 AM	0	1	3	0	3	0	0	0	0	10	0	0	1	0	0	0
7:45 AM	0	1	4	0	3	0	0	0	0	3	0	0	1	0	0	0
8:00 AM	0	5	1	0	3	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	1	4	1	0	0	0	0	0	0	1	0	0	2	0	0	0
8:45 AM	0	4	3	0	2	0	0	0	0	4	0	0	0	0	0	0
9:00 AM	0	2	1	0	3	0	0	0	0	6	0	0	0	0	0	0
9:15 AM	0	5	6	0	3	0	0	0	0	3	0	0	0	0	0	0
9:30 AM	0	2	2	0	5	0	0	0	0	2	0	0	0	0	0	0
9:45 AM	0	1	1	0	0	0	0	0	0	4	0	0	0	0	0	0
10:00 AM	0	1	2	0	3	0	0	0	0	3	0	0	0	0	0	0
10:15 AM	0	2	2	0	3	0	0	0	1	3	0	0	0	0	0	0
10:30 AM	0	0	2	0	1	0	0	0	0	2	0	0	0	0	0	0
10:45 AM	0	2	5	0	4	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	3	2	0	3	0	0	0	0	2	0	0	0	0	0	0
11:15 AM	0	1	2	0	2	0	0	0	1	1	0	0	0	0	0	0
11:30 AM	0	1	3	0	2	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	1	0	2	0	0	0	0	2	0	0	1	0	0	0
12:00 PM	0	3	3	0	1	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	1	3	0	4	0	0	0	0	2	0	0	0	0	0	0
12:30 PM	0	4	2	0	2	0	0	0	0	6	0	0	0	0	0	0
12:45 PM	0	0	2	0	2	0	0	0	1	5	0	0	0	0	0	0
1:00 PM	0	3	0	0	2	0	0	0	0	3	0	0	0	0	0	0
1:15 PM	0	3	0	0	1	0	0	0	0	3	0	0	0	0	0	0
1:30 PM	1	1	2	0	1	0	0	0	1	2	0	0	1	0	0	0
1:45 PM	0	3	2	0	4	0	0	0	1	4	0	0	0	0	0	0
2:00 PM	0	3	2	0	2	0	0	0	0	5	0	0	0	0	0	0
2:15 PM	0	4	4	0	2	0	0	0	0	2	0	0	0	0	0	0
2:30 PM	0	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	4	1	0	1	0	0	0	0	1	0	0	6	0	0	0
3:00 PM	0	1	2	0	0	0	0	0	0	3	0	0	0	0	0	0
3:15 PM	1	0	4	0	5	0	0	0	0	2	0	0	0	0	0	0
3:30 PM	0	2	1	0	2	0	0	0	0	5	0	0	0	0	0	0
3:45 PM	0	5	5	0	2	0	0	0	0	4	0	0	1	0	0	0
4:00 PM	0	4	1	0	3	0	0	0	0	3	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	3	3	0	1	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	0	1	5	0	4	0	0	0	0	3	0	0	0	0	0	0
5:00 PM	0	2	0	0	3	0	0	0	0	6	0	0	0	0	0	0
5:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:45 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 55 U.S. 41 & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Crossing North Leg	Hampton St Crossing East Leg	U.S. 41 Crossing South Leg	Hampton St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	1
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	1	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	1	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	1	0
11:45 AM	1	1	0	0
12:00 PM	0	1	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	2
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	1
3:00 PM	1	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	1	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	2	0	0	0
5:30 PM	0	0	0	0
5:45 PM	1	0	0	0

Study Name **Location 55 U.S. 41 & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Crossing North Leg	Hampton St Crossing East Leg	U.S. 41 Crossing South Leg	Hampton St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	1
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 55 U.S. 41 & Hampton St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	U.S. 41 Southbound				Hampton St Westbound				U.S. 41 Northbound				Hampton St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	27	1	0	5	0	0	0	4	70	1	0	0	0	3	0
6:15 AM	0	35	3	0	4	0	0	0	5	95	0	0	2	1	0	0
6:30 AM	0	35	1	0	8	1	0	0	2	154	6	0	0	1	0	0
6:45 AM	0	50	6	0	2	1	0	0	2	199	6	0	0	1	0	0
7:00 AM	0	45	5	0	3	0	0	0	1	228	6	0	2	0	0	0
7:15 AM	2	73	12	0	10	0	0	0	2	223	10	0	5	0	0	0
7:30 AM	2	100	7	0	12	1	1	0	1	259	26	0	14	0	0	0
7:45 AM	5	120	12	0	11	1	0	0	3	309	10	0	23	0	5	0
8:00 AM	4	93	4	0	10	0	0	0	0	168	4	0	0	1	2	0
8:15 AM	3	90	2	0	4	0	1	0	1	196	3	0	2	1	1	0
8:30 AM	6	96	12	0	5	0	0	0	0	198	5	0	6	0	1	0
8:45 AM	5	112	6	0	8	0	0	0	0	223	6	0	2	0	1	0
9:00 AM	7	97	9	0	6	1	1	0	1	177	3	0	4	1	4	0
9:15 AM	6	108	8	0	4	1	1	0	0	163	2	0	1	0	1	0
9:30 AM	4	98	5	0	11	0	0	0	0	198	4	0	1	0	1	0
9:45 AM	5	106	4	0	5	3	0	0	2	180	2	0	3	2	3	0
10:00 AM	3	100	7	0	12	1	3	0	0	155	4	0	3	1	3	0
10:15 AM	3	128	4	0	8	0	0	0	1	127	3	0	3	1	6	0
10:30 AM	4	123	6	0	4	2	1	0	0	179	4	0	7	0	3	0
10:45 AM	4	128	9	0	15	0	0	0	2	143	5	0	6	0	3	0
11:00 AM	4	145	8	0	10	0	0	1	0	118	2	1	2	1	4	0
11:15 AM	4	139	13	0	16	0	0	0	2	155	1	0	3	1	4	0
11:30 AM	7	142	9	0	15	0	2	0	1	152	9	0	5	0	2	0
11:45 AM	2	156	9	0	14	3	0	0	0	160	2	0	7	1	3	0
12:00 PM	6	167	12	0	8	0	3	0	0	163	7	0	2	1	2	0
12:15 PM	17	170	12	0	8	0	1	0	0	149	6	0	4	0	3	0
12:30 PM	8	146	8	0	13	1	0	0	2	156	7	0	4	1	1	0
12:45 PM	6	187	14	0	10	0	0	0	6	123	3	0	6	1	2	0
1:00 PM	4	160	7	0	8	0	0	0	0	150	3	0	6	0	1	0
1:15 PM	6	150	6	0	8	0	1	0	0	145	3	0	7	1	1	0
1:30 PM	4	170	9	0	11	0	0	0	3	157	5	0	8	0	1	0
1:45 PM	6	157	7	0	13	0	0	0	1	157	5	0	7	1	3	0
2:00 PM	7	159	9	0	12	0	0	0	0	169	5	0	4	0	5	0
2:15 PM	5	201	10	0	6	1	0	0	0	171	12	0	7	0	3	0
2:30 PM	3	199	15	0	14	1	0	0	1	137	2	0	6	1	1	0
2:45 PM	4	181	7	0	14	1	0	0	0	138	2	0	20	0	1	0
3:00 PM	3	206	5	0	3	1	0	0	0	149	7	0	16	0	3	0
3:15 PM	6	219	6	0	12	1	0	0	0	141	5	0	12	0	1	0
3:30 PM	9	222	9	0	12	0	1	0	0	167	2	0	9	1	1	0
3:45 PM	4	227	13	0	5	0	1	0	0	147	7	0	11	0	7	0
4:00 PM	14	278	9	0	4	1	0	0	0	189	0	0	7	0	6	0
4:15 PM	8	261	10	0	6	1	1	0	2	158	2	0	8	1	1	0
4:30 PM	6	281	6	0	13	0	1	0	1	204	6	0	10	0	1	0
4:45 PM	6	239	14	0	12	2	0	0	0	170	6	0	13	1	1	0
5:00 PM	6	325	8	0	10	0	4	0	0	175	5	0	15	0	0	0
5:15 PM	5	269	8	0	1	1	2	0	0	174	0	0	10	1	2	0
5:30 PM	4	236	6	0	7	0	0	0	1	173	3	0	5	1	4	0
5:45 PM	3	228	5	0	9	0	0	0	1	174	2	0	9	0	4	0

Study Name **Location 56 Division St & Joliet Rd/3rd St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southwestbound				Joliet Rd Northwestbound				Division St Northeastbound				3rd St Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	8	0	0	1	0	0	0	0	3	0	0	1	0	1	0
6:15 AM	0	6	1	0	2	0	5	0	1	8	0	0	0	0	1	0
6:30 AM	0	8	0	0	6	0	3	0	0	17	0	0	0	0	2	0
6:45 AM	0	8	0	0	3	0	3	0	2	17	0	0	3	0	1	0
7:00 AM	0	13	1	0	1	0	7	0	2	25	0	0	0	0	0	0
7:15 AM	0	12	3	0	13	0	7	0	2	24	0	0	1	0	0	0
7:30 AM	0	13	3	0	16	0	6	0	3	46	0	0	0	0	1	0
7:45 AM	0	14	4	0	12	0	3	0	0	53	0	0	1	0	1	0
8:00 AM	0	23	3	0	4	0	4	0	2	16	0	0	0	0	1	0
8:15 AM	0	11	4	0	4	0	2	0	2	26	0	0	2	0	1	0
8:30 AM	0	18	0	0	10	0	6	0	2	28	0	0	3	0	4	0
8:45 AM	0	29	1	0	7	0	7	0	2	24	0	0	1	0	1	0
9:00 AM	0	15	4	0	5	0	5	0	3	17	0	0	1	0	1	0
9:15 AM	1	18	5	0	4	0	4	0	5	13	0	0	5	0	0	0
9:30 AM	0	16	1	0	6	0	3	0	0	21	0	0	2	0	1	0
9:45 AM	0	17	4	0	2	0	1	0	3	22	0	0	0	0	2	0
10:00 AM	1	15	1	0	4	0	2	0	2	18	0	0	2	0	1	0
10:15 AM	0	15	1	0	5	0	0	0	0	12	0	0	2	0	1	0
10:30 AM	0	20	2	0	4	0	2	0	1	16	0	0	0	0	2	0
10:45 AM	0	18	0	0	4	0	3	0	1	31	0	0	0	0	1	0
11:00 AM	0	12	7	0	6	0	5	0	4	11	0	0	1	0	3	0
11:15 AM	0	21	2	0	2	0	1	0	5	30	0	0	0	0	2	0
11:30 AM	0	22	4	0	3	0	1	0	2	21	0	0	1	0	0	0
11:45 AM	1	15	2	0	1	0	0	0	2	20	0	0	3	0	2	0
12:00 PM	1	21	4	0	2	0	1	0	5	21	0	0	1	0	3	0
12:15 PM	0	23	5	0	5	0	2	0	5	19	0	0	0	0	2	0
12:30 PM	0	19	4	0	7	0	7	0	3	19	0	0	0	0	2	0
12:45 PM	0	16	1	1	7	0	2	0	3	23	0	0	0	0	3	0
1:00 PM	0	23	4	0	6	0	5	0	2	17	0	0	1	0	5	0
1:15 PM	0	19	1	0	5	0	0	0	4	12	0	0	0	0	0	0
1:30 PM	0	15	0	0	6	0	3	0	2	17	0	0	1	0	1	0
1:45 PM	0	20	0	0	7	0	2	0	3	19	0	0	0	0	3	0
2:00 PM	0	27	2	1	2	0	0	0	1	22	0	0	1	0	3	0
2:15 PM	0	22	3	0	1	0	0	0	0	20	0	0	1	0	2	0
2:30 PM	0	30	7	0	7	0	0	0	4	21	0	0	1	0	3	0
2:45 PM	0	21	5	0	2	0	0	0	7	20	0	0	1	0	1	0
3:00 PM	1	27	1	0	3	0	3	0	10	18	0	0	0	0	2	0
3:15 PM	0	28	5	0	3	0	1	1	2	28	0	0	0	0	0	0
3:30 PM	0	24	6	0	5	0	7	0	5	25	0	0	0	0	2	0
3:45 PM	0	37	6	0	3	0	3	0	9	30	0	0	0	0	2	0
4:00 PM	0	38	6	0	5	0	2	0	4	28	0	0	0	0	1	0
4:15 PM	0	37	7	0	4	0	5	0	4	24	0	0	0	0	0	0
4:30 PM	1	42	6	0	3	0	1	0	7	35	0	0	0	0	3	0
4:45 PM	0	38	2	0	4	0	6	0	7	32	0	0	0	0	3	0
5:00 PM	0	48	16	0	5	0	4	0	7	22	0	0	0	0	0	0
5:15 PM	0	25	6	0	9	0	1	0	7	29	0	0	1	0	0	0
5:30 PM	0	32	5	0	7	0	2	0	8	28	0	0	0	0	1	0
5:45 PM	0	21	5	0	4	0	4	0	0	20	0	0	0	0	0	0
6:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 56 Division St & Joliet Rd/3rd St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southwestbound				Joliet Rd Northwestbound				Division St Northeastbound				3rd St Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	2	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0
12:30 PM	0	1	2	0	2	0	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 56 Division St & Joliet Rd/3rd St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southwestbound				Joliet Rd Northwestbound				Division St Northeastbound				3rd St Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 56 Division St & Joliet Rd/3rd St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Crossing Northeast Leg	Joliet Rd Crossing Southeast Leg	Division St Crossing Southwest Leg	3rd St Crossing Northwest Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	0	0	0	0
7:00 AM	1	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	1
9:15 AM	0	1	0	1
9:30 AM	0	0	0	0
9:45 AM	0	0	1	0
10:00 AM	0	0	0	0
10:15 AM	1	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	1	0	0	0
11:45 AM	0	1	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	1
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	1
3:00 PM	1	2	1	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	1	0
5:45 PM	0	0	0	0
6:00 PM	0	0	0	0

Study Name **Location 56 Division St & Joliet Rd/3rd St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Division St Southwestbound				Joliet Rd Northwestbound				Division St Northeastbound				3rd St Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	9	0	0	1	0	0	0	0	3	0	0	1	0	1	0
6:15 AM	0	6	1	0	2	0	5	0	1	8	0	0	0	0	1	0
6:30 AM	0	8	0	0	6	0	3	0	0	17	0	0	0	0	2	0
6:45 AM	0	9	0	0	3	0	4	0	2	17	0	0	3	0	1	0
7:00 AM	0	15	1	0	1	0	7	0	2	27	0	0	0	0	0	0
7:15 AM	0	12	3	0	13	0	8	0	2	25	0	0	1	0	0	0
7:30 AM	0	14	3	0	16	0	6	0	3	46	0	0	0	0	1	0
7:45 AM	0	15	4	0	13	0	3	0	0	54	0	0	1	0	1	0
8:00 AM	0	25	3	0	4	0	4	0	2	18	0	0	0	0	1	0
8:15 AM	0	12	5	0	4	0	2	0	2	26	0	0	2	0	1	0
8:30 AM	0	19	0	0	10	0	6	0	2	28	0	0	3	0	4	0
8:45 AM	0	29	1	0	7	0	7	0	2	24	0	0	1	0	1	0
9:00 AM	0	16	6	0	5	0	5	0	3	18	0	0	1	0	1	0
9:15 AM	1	18	5	0	4	0	4	0	5	13	0	0	5	0	0	0
9:30 AM	0	16	1	0	7	0	4	0	0	21	0	0	2	0	1	0
9:45 AM	0	17	4	0	2	0	1	0	3	23	0	0	0	0	2	0
10:00 AM	1	18	1	0	4	0	2	0	2	18	0	0	2	0	1	0
10:15 AM	0	16	1	0	5	0	0	0	0	12	0	0	2	0	1	0
10:30 AM	0	20	2	0	4	0	2	0	1	16	0	0	0	0	2	0
10:45 AM	0	18	0	0	4	0	3	0	1	31	0	0	0	0	1	0
11:00 AM	0	14	7	0	6	0	5	0	4	11	0	0	1	0	3	0
11:15 AM	0	24	2	0	2	0	1	0	5	31	0	0	0	0	2	0
11:30 AM	0	22	4	0	4	0	2	0	2	22	0	0	1	0	0	0
11:45 AM	1	16	2	0	1	0	0	0	2	21	0	0	3	0	2	0
12:00 PM	1	24	4	0	2	0	1	0	5	24	0	0	1	0	3	0
12:15 PM	0	23	5	0	5	0	3	0	6	21	0	0	0	0	2	0
12:30 PM	0	20	6	0	9	0	7	0	3	20	0	0	0	0	2	0
12:45 PM	0	16	1	1	7	0	2	0	3	23	0	0	0	0	3	0
1:00 PM	0	23	4	0	6	0	5	0	2	17	0	0	1	0	5	0
1:15 PM	0	21	1	0	5	0	0	0	4	12	0	0	0	0	0	0
1:30 PM	0	16	0	0	6	0	3	0	2	17	0	0	1	0	1	0
1:45 PM	0	21	0	0	8	0	2	0	3	20	0	0	0	0	3	0
2:00 PM	0	27	2	1	2	0	0	0	1	23	0	0	1	0	3	0
2:15 PM	0	24	3	0	1	0	0	0	0	20	0	0	1	0	2	0
2:30 PM	0	31	7	0	7	0	0	0	4	21	0	0	1	0	3	0
2:45 PM	0	24	6	0	2	0	0	0	7	21	0	0	1	0	1	0
3:00 PM	1	28	1	0	3	0	3	0	10	19	0	0	0	0	2	0
3:15 PM	0	30	5	0	3	0	1	1	2	28	0	0	0	0	0	0
3:30 PM	0	24	6	0	5	0	7	0	5	26	0	0	0	0	3	0
3:45 PM	0	37	6	0	3	0	3	0	10	30	0	0	0	0	2	0
4:00 PM	0	39	6	0	6	0	2	0	4	28	0	0	0	0	1	0
4:15 PM	0	39	7	0	4	0	5	0	4	26	0	0	0	0	0	0
4:30 PM	1	46	6	0	3	0	1	0	7	35	0	0	0	0	3	0
4:45 PM	0	40	3	0	4	0	6	0	7	34	0	0	0	0	3	0
5:00 PM	0	48	16	0	5	0	4	0	7	22	0	0	0	0	0	0
5:15 PM	0	25	6	0	9	0	1	0	7	29	0	0	1	0	0	0
5:30 PM	0	33	5	0	9	0	2	0	8	29	0	0	0	0	1	0
5:45 PM	0	21	5	0	4	0	4	0	0	20	0	0	0	0	0	0
6:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 57 Division St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pioneer Rd Southeastbound			Division St Southwestbound			Division St Northeastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	2	0	0	4	0	4	0	0
6:15 AM	0	4	0	3	7	0	8	0	0
6:30 AM	0	2	0	9	12	0	11	2	0
6:45 AM	3	6	0	7	11	0	15	0	0
7:00 AM	1	5	0	13	9	0	15	1	0
7:15 AM	1	5	0	11	6	0	13	3	0
7:30 AM	0	8	0	12	8	0	34	2	0
7:45 AM	3	11	0	16	12	0	47	0	0
8:00 AM	1	8	0	11	6	0	15	0	0
8:15 AM	0	12	0	16	8	0	11	2	0
8:30 AM	1	12	0	16	7	0	15	0	0
8:45 AM	3	9	0	28	17	0	26	2	0
9:00 AM	3	9	0	9	6	0	11	0	0
9:15 AM	0	5	0	13	11	0	15	0	0
9:30 AM	3	7	0	16	6	0	17	2	0
9:45 AM	0	9	0	13	9	0	9	1	0
10:00 AM	2	7	0	4	11	0	12	1	0
10:15 AM	5	10	0	13	15	0	8	1	0
10:30 AM	0	8	0	8	6	0	14	1	0
10:45 AM	1	12	0	13	6	0	17	2	0
11:00 AM	3	11	0	12	13	0	11	2	0
11:15 AM	3	12	0	12	14	0	8	1	0
11:30 AM	2	17	0	10	12	0	16	0	0
11:45 AM	0	18	0	23	16	0	16	0	0
12:00 PM	3	13	0	14	19	0	18	3	0
12:15 PM	2	16	0	18	16	0	9	6	0
12:30 PM	1	27	0	22	13	0	12	1	0
12:45 PM	4	20	0	13	7	0	15	0	0
1:00 PM	3	16	0	19	15	0	11	5	0
1:15 PM	1	18	0	11	12	0	11	2	0
1:30 PM	6	16	0	8	15	0	18	3	0
1:45 PM	0	12	0	17	13	0	18	2	0
2:00 PM	2	14	0	19	15	0	9	1	0
2:15 PM	2	11	0	13	13	0	13	1	0
2:30 PM	3	17	0	11	12	0	12	6	0
2:45 PM	4	11	0	11	26	0	13	4	0
3:00 PM	4	13	0	16	19	0	12	5	0
3:15 PM	2	13	0	11	17	0	13	3	1
3:30 PM	3	14	0	14	29	0	12	1	0
3:45 PM	5	16	0	22	29	0	20	2	0
4:00 PM	5	26	0	19	28	0	23	2	0
4:15 PM	0	22	0	14	29	0	20	4	0
4:30 PM	1	19	0	18	34	0	18	4	0
4:45 PM	0	20	0	24	28	0	22	2	0
5:00 PM	2	32	0	17	47	0	18	4	0
5:15 PM	1	28	0	26	29	0	20	2	0
5:30 PM	2	18	0	14	23	0	28	0	0
5:45 PM	4	13	0	17	37	0	22	2	0

Study Name **Location 57 Division St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pioneer Rd Southeastbound			Division St Southwestbound			Division St Northeastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	0	0	0	1	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	1	1	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	1	0	0
8:00 AM	0	1	0	3	1	0	0	0	0
8:15 AM	0	1	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	2	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0
9:45 AM	0	0	0	1	1	0	0	0	0
10:00 AM	0	0	0	1	1	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	1	0	0
11:00 AM	0	0	0	2	0	0	0	0	0
11:15 AM	0	0	0	1	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	1	0	0	0	0
12:00 PM	0	0	0	1	0	0	1	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	1	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	1	0	0	0	0	0
1:30 PM	0	0	0	0	1	0	1	0	0
1:45 PM	0	0	0	0	1	0	0	0	0
2:00 PM	0	0	0	1	1	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	1	0
2:30 PM	0	0	0	0	0	0	0	2	0
2:45 PM	1	0	0	0	1	0	3	0	0
3:00 PM	0	0	0	1	0	0	0	0	0
3:15 PM	0	0	0	0	1	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	0	0
3:45 PM	1	0	0	0	1	0	0	0	0
4:00 PM	0	0	0	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	1	2	0	1	0	0
4:45 PM	0	0	0	0	1	0	1	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	1	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 57 Division St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pioneer Rd Southeastbound			Division St Southwestbound			Division St Northeastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	2	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	1	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	1	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	1	0	0
2:00 PM	0	0	0	0	1	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	1	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	1	2	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	1	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 57 Division St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pioneer Rd Crossing Northwest Leg	Division St Crossing Northeast Leg	Division St Crossing Southwest Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	2	0	1
8:00 AM	0	0	0
8:15 AM	0	0	2
8:30 AM	1	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	1	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	1	0	0
3:45 PM	1	0	0
4:00 PM	0	1	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	2	0	0
5:45 PM	0	0	0

Study Name **Location 57 Division St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pioneer Rd Crossing Northwest Leg	Division St Crossing Northeast Leg	Division St Crossing Southwest Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0

Study Name **Location 57 Division St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pioneer Rd Southeastbound			Division St Southwestbound			Division St Northeastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	2	0	0	5	0	4	0	0
6:15 AM	0	4	0	3	7	0	8	0	0
6:30 AM	0	2	0	9	12	0	11	2	0
6:45 AM	3	6	0	7	11	0	15	0	0
7:00 AM	1	5	0	14	10	0	15	1	0
7:15 AM	1	5	0	11	6	0	13	3	0
7:30 AM	0	8	0	13	9	0	34	3	0
7:45 AM	3	11	0	16	13	0	48	0	0
8:00 AM	1	9	0	14	9	0	15	0	0
8:15 AM	0	13	0	17	8	0	11	2	0
8:30 AM	1	12	0	16	9	0	16	0	0
8:45 AM	3	9	0	30	17	0	26	3	0
9:00 AM	3	9	0	10	6	0	11	0	0
9:15 AM	0	6	0	13	11	0	15	0	0
9:30 AM	3	8	0	16	6	0	17	2	0
9:45 AM	0	9	0	14	10	0	10	1	0
10:00 AM	2	7	0	5	12	0	12	1	0
10:15 AM	5	10	0	13	15	0	8	1	0
10:30 AM	0	9	0	8	6	0	14	1	0
10:45 AM	1	12	0	13	6	0	18	2	0
11:00 AM	3	11	0	14	13	0	11	2	0
11:15 AM	3	12	0	13	14	0	8	1	0
11:30 AM	2	17	0	11	12	0	16	0	0
11:45 AM	0	18	0	23	17	0	17	0	0
12:00 PM	3	13	0	15	20	0	19	3	0
12:15 PM	2	16	0	18	16	0	9	6	0
12:30 PM	1	27	0	23	13	0	12	1	0
12:45 PM	4	21	0	13	7	0	15	0	0
1:00 PM	3	16	0	19	15	0	11	5	0
1:15 PM	1	18	0	12	12	0	11	2	0
1:30 PM	6	16	0	8	16	0	19	3	0
1:45 PM	0	12	0	17	14	0	19	2	0
2:00 PM	2	14	0	20	17	0	9	1	0
2:15 PM	2	11	0	13	13	0	13	2	0
2:30 PM	3	17	0	11	12	0	12	8	0
2:45 PM	5	11	0	11	28	0	16	4	0
3:00 PM	4	13	0	17	19	0	12	5	0
3:15 PM	2	13	0	11	18	0	13	3	1
3:30 PM	3	14	0	14	30	0	12	1	0
3:45 PM	6	16	0	22	30	0	21	2	0
4:00 PM	5	26	0	21	30	0	23	2	0
4:15 PM	0	22	0	14	30	0	20	4	0
4:30 PM	1	20	0	19	36	0	20	4	0
4:45 PM	0	20	0	24	30	0	23	2	0
5:00 PM	2	32	0	17	47	0	18	4	0
5:15 PM	1	28	0	27	29	0	20	2	0
5:30 PM	2	18	0	14	24	0	28	0	0
5:45 PM	4	13	0	17	37	0	22	2	0

Study Name **Location 58 Altamont St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound			Pioneer Rd Westbound			Pioneer Rd Eastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	0	0	0	1	0	2	3	0
6:15 AM	2	1	0	0	4	0	3	1	0
6:30 AM	3	1	0	1	9	0	2	1	0
6:45 AM	1	0	0	0	8	0	8	0	0
7:00 AM	3	0	0	1	12	0	5	3	0
7:15 AM	6	0	0	1	12	0	6	5	0
7:30 AM	7	0	0	3	14	0	11	7	0
7:45 AM	16	4	0	0	15	0	9	4	0
8:00 AM	3	1	0	1	9	0	9	1	0
8:15 AM	5	1	0	0	17	0	11	2	0
8:30 AM	5	0	0	1	16	0	13	2	0
8:45 AM	10	1	0	0	33	0	13	4	0
9:00 AM	4	0	0	0	10	0	12	6	0
9:15 AM	3	0	0	0	10	0	5	1	0
9:30 AM	1	2	0	1	16	0	9	3	0
9:45 AM	2	0	0	1	11	0	10	6	0
10:00 AM	4	0	0	0	7	0	8	0	0
10:15 AM	1	0	0	0	13	0	15	1	0
10:30 AM	0	0	0	0	9	0	9	1	0
10:45 AM	4	0	0	0	12	0	13	5	0
11:00 AM	2	2	0	1	12	0	13	0	0
11:15 AM	4	1	0	1	13	0	14	3	0
11:30 AM	6	0	0	1	7	0	20	5	0
11:45 AM	2	0	0	0	22	0	17	3	0
12:00 PM	1	0	0	1	12	0	20	2	0
12:15 PM	5	1	0	1	22	0	19	2	0
12:30 PM	7	1	0	0	18	0	27	4	1
12:45 PM	5	0	0	0	14	0	24	4	0
1:00 PM	5	2	0	1	20	0	19	4	0
1:15 PM	3	2	0	0	13	0	17	5	0
1:30 PM	2	1	0	0	8	0	20	2	0
1:45 PM	8	0	0	2	18	0	13	3	0
2:00 PM	2	0	0	0	20	0	17	5	0
2:15 PM	4	1	0	1	12	0	15	4	0
2:30 PM	2	1	0	3	14	0	19	3	0
2:45 PM	7	2	0	2	11	0	14	6	0
3:00 PM	3	1	0	1	15	0	17	3	0
3:15 PM	8	0	0	0	16	0	16	7	0
3:30 PM	5	1	0	1	13	0	16	2	0
3:45 PM	7	0	0	1	21	0	24	8	0
4:00 PM	2	1	0	0	20	0	26	7	0
4:15 PM	4	0	0	0	17	0	23	2	0
4:30 PM	8	1	0	2	19	0	21	6	0
4:45 PM	8	1	0	2	20	0	22	10	0
5:00 PM	6	2	0	2	20	0	37	4	0
5:15 PM	3	1	0	1	26	0	30	12	0
5:30 PM	2	0	0	0	14	0	18	3	0
5:45 PM	10	2	0	2	16	0	15	6	0
6:00 PM	0	0	0	0	2	0	0	0	0

Study Name **Location 58 Altamont St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound			Pioneer Rd Westbound			Pioneer Rd Eastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	1	1	0	1	1	0
8:15 AM	0	0	0	0	1	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	1	0	0	0	0
9:15 AM	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	1	0	0
9:45 AM	0	0	0	0	1	0	0	0	0
10:00 AM	0	0	0	1	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	1	1	0	0	0	0
11:15 AM	0	0	0	0	1	0	1	0	0
11:30 AM	0	0	0	0	1	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	1	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	1	0	1	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	1	0	0	0	0	0
2:15 PM	0	0	0	0	1	0	0	0	0
2:30 PM	0	0	0	0	2	0	0	0	0
2:45 PM	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	1	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	1	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	1	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	1	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 58 Altamont St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound			Pioneer Rd Westbound			Pioneer Rd Eastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	2	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	2	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	1	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 58 Altamont St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Crossing North Leg	Pioneer Rd Crossing East Leg	Pioneer Rd Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	3	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	2	0	0
8:30 AM	1	0	0
8:45 AM	0	0	0
9:00 AM	1	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	1	0	0
10:30 AM	1	0	0
10:45 AM	0	0	0
11:00 AM	1	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	1	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	3	0	0
1:30 PM	1	0	0
1:45 PM	0	1	0
2:00 PM	1	0	0
2:15 PM	1	0	0
2:30 PM	1	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	1	0	0
4:00 PM	2	0	1
4:15 PM	0	0	0
4:30 PM	1	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0
6:00 PM	0	0	0

Study Name **Location 58 Altamont St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Crossing North Leg	Pioneer Rd Crossing East Leg	Pioneer Rd Crossing West Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	1	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0
6:00 PM	0	0	0

Study Name **Location 58 Altamont St & Pioneer Rd**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Altamont St Southbound			Pioneer Rd Westbound			Pioneer Rd Eastbound		
Start Time	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn
6:00 AM	0	0	0	0	1	0	2	3	0
6:15 AM	2	1	0	0	4	0	3	1	0
6:30 AM	3	1	0	1	9	0	2	1	0
6:45 AM	1	0	0	0	8	0	8	0	0
7:00 AM	3	0	0	2	12	0	5	4	0
7:15 AM	6	0	0	1	12	0	6	5	0
7:30 AM	7	0	0	4	14	0	11	7	0
7:45 AM	16	4	0	0	16	0	9	4	0
8:00 AM	3	1	0	2	10	0	10	2	0
8:15 AM	5	1	0	0	18	0	12	4	0
8:30 AM	5	0	0	1	16	0	13	2	0
8:45 AM	10	1	0	0	34	0	13	4	0
9:00 AM	4	0	0	1	11	0	12	6	0
9:15 AM	3	0	0	0	10	0	6	1	0
9:30 AM	1	2	0	1	16	0	10	3	0
9:45 AM	4	0	0	1	12	0	10	6	0
10:00 AM	4	0	0	1	7	0	8	0	0
10:15 AM	1	0	0	0	13	0	15	1	0
10:30 AM	0	0	0	0	9	0	10	1	0
10:45 AM	4	0	0	0	12	0	13	5	0
11:00 AM	2	2	0	2	13	0	13	0	0
11:15 AM	4	1	0	1	14	0	15	3	0
11:30 AM	6	0	0	1	8	0	20	6	0
11:45 AM	2	0	0	0	22	0	17	3	0
12:00 PM	1	0	0	2	12	0	20	2	0
12:15 PM	5	1	0	1	22	0	19	3	0
12:30 PM	7	1	0	0	19	0	28	4	1
12:45 PM	5	0	0	0	14	0	24	4	0
1:00 PM	5	2	0	1	20	0	19	4	0
1:15 PM	3	2	0	1	13	0	17	5	0
1:30 PM	2	1	0	0	8	0	20	2	0
1:45 PM	8	0	0	2	18	0	13	3	0
2:00 PM	2	0	0	1	20	0	17	5	0
2:15 PM	4	1	0	1	13	0	15	4	0
2:30 PM	2	1	0	3	16	0	19	3	0
2:45 PM	8	2	0	2	11	0	15	6	0
3:00 PM	3	1	0	2	15	0	17	3	0
3:15 PM	8	0	0	0	16	0	16	8	0
3:30 PM	5	1	0	1	13	0	16	2	0
3:45 PM	7	0	0	1	21	0	25	8	0
4:00 PM	2	1	0	1	20	0	27	8	0
4:15 PM	4	0	0	0	17	0	23	2	0
4:30 PM	9	1	0	2	20	0	22	6	0
4:45 PM	8	1	0	2	20	0	22	10	0
5:00 PM	6	2	0	2	20	0	37	4	0
5:15 PM	3	1	0	2	26	0	30	12	0
5:30 PM	2	0	0	0	14	0	18	3	0
5:45 PM	10	2	0	2	16	0	15	6	0
6:00 PM	0	0	0	0	2	0	0	0	0

Study Name **Location 59 Division St & McClellan Ave**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound			Division St Westbound			McClellan Ave Northbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	10	2	0	0	4	0	3	32	0
6:15 AM	14	1	0	1	9	0	3	28	0
6:30 AM	18	0	0	3	7	0	13	60	0
6:45 AM	25	2	0	2	6	0	12	44	0
7:00 AM	25	1	0	11	9	0	13	85	0
7:15 AM	25	4	0	3	5	0	19	81	0
7:30 AM	17	0	0	6	8	0	35	103	0
7:45 AM	21	0	0	2	7	0	22	61	0
8:00 AM	19	1	0	4	5	0	11	49	0
8:15 AM	18	0	0	2	5	0	8	46	0
8:30 AM	22	2	0	8	5	0	18	85	0
8:45 AM	26	4	0	9	9	0	14	55	0
9:00 AM	18	6	0	3	2	0	8	46	0
9:15 AM	24	1	0	1	6	0	10	53	0
9:30 AM	17	1	0	4	6	0	12	54	0
9:45 AM	20	3	0	2	3	0	7	37	0
10:00 AM	18	1	0	7	7	0	6	30	0
10:15 AM	28	4	0	4	12	0	5	47	0
10:30 AM	22	4	0	5	3	0	10	55	0
10:45 AM	21	2	0	0	6	0	11	37	0
11:00 AM	32	0	0	4	10	0	9	43	0
11:15 AM	36	4	0	3	7	0	8	38	0
11:30 AM	30	3	0	4	9	0	13	55	0
11:45 AM	50	4	0	3	9	0	9	35	0
12:00 PM	42	2	0	7	20	0	9	38	0
12:15 PM	36	3	0	3	8	0	6	33	0
12:30 PM	31	2	0	3	5	0	10	46	0
12:45 PM	41	6	0	4	9	0	12	49	0
1:00 PM	51	2	0	1	11	0	6	51	0
1:15 PM	44	4	0	1	9	0	13	38	0
1:30 PM	34	1	0	4	8	0	12	58	0
1:45 PM	43	1	0	3	10	1	9	37	0
2:00 PM	43	3	0	2	13	0	7	35	0
2:15 PM	52	3	0	3	14	0	8	49	0
2:30 PM	64	8	0	5	7	0	10	45	0
2:45 PM	48	6	0	4	18	0	7	40	0
3:00 PM	63	4	0	6	16	0	9	25	1
3:15 PM	73	3	0	4	16	0	9	54	0
3:30 PM	64	3	0	7	22	0	5	55	0
3:45 PM	87	9	0	4	23	0	15	62	0
4:00 PM	86	4	0	1	29	0	18	44	0
4:15 PM	86	10	1	3	16	0	14	52	0
4:30 PM	95	7	0	1	26	0	11	46	0
4:45 PM	80	6	0	5	23	0	18	39	0
5:00 PM	110	6	0	2	33	0	8	54	0
5:15 PM	96	6	0	3	26	0	16	62	0
5:30 PM	82	3	0	6	15	0	16	57	0
5:45 PM	75	4	0	2	24	0	15	38	0

Study Name **Location 59 Division St & McClellan Ave**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound			Division St Westbound			McClellan Ave Northbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	1	0
6:30 AM	0	0	0	0	0	0	0	4	0
6:45 AM	1	0	0	0	0	0	0	2	0
7:00 AM	2	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	1	0
7:30 AM	1	0	0	0	0	0	0	1	0
7:45 AM	2	0	0	0	2	0	0	3	0
8:00 AM	1	0	0	0	0	0	0	4	0
8:15 AM	3	0	0	0	1	0	1	0	0
8:30 AM	2	0	0	0	0	0	0	3	0
8:45 AM	1	0	0	0	0	0	0	4	0
9:00 AM	0	0	0	0	0	0	0	2	0
9:15 AM	3	0	0	0	0	0	0	5	0
9:30 AM	3	0	0	0	0	0	0	2	0
9:45 AM	2	0	0	0	1	0	0	1	0
10:00 AM	2	0	0	0	0	0	0	1	0
10:15 AM	2	0	0	0	0	0	0	3	0
10:30 AM	0	0	0	0	0	0	1	0	0
10:45 AM	6	0	0	0	0	0	0	2	0
11:00 AM	3	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	3	0
11:45 AM	2	0	0	0	0	0	0	1	0
12:00 PM	1	0	0	0	0	0	0	1	0
12:15 PM	2	0	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	1	0	0	0	1	0	1	3	0
1:00 PM	1	0	0	0	1	0	0	2	0
1:15 PM	2	0	0	0	1	0	1	0	0
1:30 PM	1	0	0	0	0	0	0	1	0
1:45 PM	2	0	0	1	0	0	0	2	0
2:00 PM	2	0	0	0	0	0	0	4	0
2:15 PM	3	0	0	0	0	0	1	2	0
2:30 PM	3	0	0	0	0	0	1	0	0
2:45 PM	2	0	0	0	0	0	1	1	0
3:00 PM	1	0	0	0	1	0	0	2	0
3:15 PM	3	0	0	0	1	0	0	3	0
3:30 PM	1	0	0	0	0	0	0	3	0
3:45 PM	1	0	0	0	2	0	0	0	0
4:00 PM	3	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	1	1	0
4:30 PM	1	0	0	0	3	0	0	2	0
4:45 PM	1	0	0	0	2	0	1	1	0
5:00 PM	1	0	0	0	0	0	0	1	0
5:15 PM	1	0	0	0	0	0	0	1	0
5:30 PM	1	0	0	0	1	0	0	0	0
5:45 PM	1	0	0	0	0	0	0	0	0

Study Name **Location 59 Division St & McClellan Ave**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound			Division St Westbound			McClellan Ave Northbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	1	0	0	0	1	0	0	1	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	1	0
7:00 AM	1	0	0	1	0	0	0	2	0
7:15 AM	3	0	0	0	0	0	0	4	0
7:30 AM	2	0	0	0	0	0	0	1	0
7:45 AM	3	0	0	0	0	0	1	3	0
8:00 AM	1	0	0	0	1	0	0	2	0
8:15 AM	1	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0
8:45 AM	0	0	0	0	0	0	0	1	0
9:00 AM	1	0	0	0	0	0	0	4	0
9:15 AM	1	0	0	0	0	0	0	4	0
9:30 AM	0	0	0	0	0	0	0	3	0
9:45 AM	1	0	0	0	0	0	1	0	0
10:00 AM	0	0	0	0	1	0	0	1	0
10:15 AM	1	0	0	0	0	0	0	1	0
10:30 AM	1	0	0	0	0	0	0	5	0
10:45 AM	0	0	0	0	0	0	0	2	0
11:00 AM	0	0	0	0	0	0	0	1	0
11:15 AM	1	0	0	0	0	0	0	1	0
11:30 AM	0	0	0	0	0	0	0	2	0
11:45 AM	1	0	0	0	0	0	1	0	0
12:00 PM	1	0	0	0	1	0	0	3	0
12:15 PM	1	0	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	1	0
1:00 PM	2	0	0	0	0	0	0	0	0
1:15 PM	2	0	0	0	0	0	0	1	0
1:30 PM	5	0	0	0	0	0	0	2	0
1:45 PM	1	0	0	0	0	0	1	3	0
2:00 PM	0	0	0	0	1	0	0	4	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	1	0
2:45 PM	1	0	0	0	1	0	0	3	0
3:00 PM	1	0	0	0	0	0	0	4	0
3:15 PM	1	0	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	3	0
3:45 PM	1	0	0	0	0	0	1	0	0
4:00 PM	2	0	0	0	1	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	1	0
4:30 PM	1	0	0	0	0	0	0	2	0
4:45 PM	0	0	0	0	0	0	0	2	0
5:00 PM	4	0	0	0	0	0	0	2	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	3	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 59 Division St & McClellan Av**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Division St Crossing East Leg	McClellan Ave Crossing South Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	1	0
10:15 AM	0	1	0
10:30 AM	0	1	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	1	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	1	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	1	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0

Study Name **Location 59 Division St & McClellan A**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Division St Crossing East Leg	McClellan Ave Crossing South Leg
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	1	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	2	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	1	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	1	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	1	0
1:30 PM	0	1	0
1:45 PM	0	2	0
2:00 PM	0	1	0
2:15 PM	0	1	0
2:30 PM	0	1	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	1	0
3:45 PM	0	0	0
4:00 PM	0	1	0
4:15 PM	0	1	0
4:30 PM	0	1	0
4:45 PM	0	4	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	2	0
5:45 PM	0	2	0

Study Name **Location 59 Division St & McClellan Ave**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound			Division St Westbound			McClellan Ave Northbound		
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn
6:00 AM	11	2	0	0	5	0	3	33	0
6:15 AM	14	1	0	1	9	0	3	29	0
6:30 AM	18	0	0	3	7	0	13	64	0
6:45 AM	26	2	0	2	6	0	12	47	0
7:00 AM	28	1	0	12	9	0	13	87	0
7:15 AM	29	4	0	3	5	0	19	86	0
7:30 AM	20	0	0	6	8	0	35	105	0
7:45 AM	26	0	0	2	9	0	23	67	0
8:00 AM	21	1	0	4	6	0	11	55	0
8:15 AM	22	0	0	2	6	0	9	46	0
8:30 AM	24	2	0	8	5	0	18	89	0
8:45 AM	27	4	0	9	9	0	14	60	0
9:00 AM	19	6	0	3	2	0	8	52	0
9:15 AM	28	1	0	1	6	0	10	62	0
9:30 AM	20	1	0	4	6	0	12	59	0
9:45 AM	23	3	0	2	4	0	8	38	0
10:00 AM	20	1	0	7	8	0	6	32	0
10:15 AM	31	4	0	4	12	0	5	51	0
10:30 AM	23	4	0	5	3	0	11	60	0
10:45 AM	27	2	0	0	6	0	11	41	0
11:00 AM	35	0	0	4	10	0	9	44	0
11:15 AM	38	4	0	3	7	0	8	39	0
11:30 AM	30	3	0	4	9	0	13	60	0
11:45 AM	53	4	0	3	9	0	10	36	0
12:00 PM	44	2	0	7	21	0	9	42	0
12:15 PM	39	3	0	3	8	0	6	35	0
12:30 PM	31	2	0	3	5	0	10	46	0
12:45 PM	42	6	0	4	10	0	13	53	0
1:00 PM	54	2	0	1	12	0	6	53	0
1:15 PM	48	4	0	1	10	0	14	39	0
1:30 PM	40	1	0	4	8	0	12	61	0
1:45 PM	46	1	0	4	10	1	10	42	0
2:00 PM	45	3	0	2	14	0	7	43	0
2:15 PM	55	3	0	3	14	0	9	51	0
2:30 PM	67	8	0	5	7	0	11	46	0
2:45 PM	51	6	0	4	19	0	8	44	0
3:00 PM	65	4	0	6	17	0	9	31	1
3:15 PM	77	3	0	4	17	0	9	58	0
3:30 PM	65	3	0	7	22	0	5	61	0
3:45 PM	89	9	0	4	25	0	16	62	0
4:00 PM	91	4	0	1	30	0	18	44	0
4:15 PM	87	10	1	3	17	0	15	54	0
4:30 PM	97	7	0	1	29	0	11	50	0
4:45 PM	81	6	0	5	25	0	19	42	0
5:00 PM	115	6	0	2	33	0	8	57	0
5:15 PM	97	6	0	3	26	0	16	63	0
5:30 PM	86	3	0	6	16	0	16	57	0
5:45 PM	76	4	0	2	24	0	15	38	0

Study Name **Location 60 3rd St & Spring St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Spring St Westbound				3rd St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	0	0	1	0	0	0	0	7	0	0	0	0	0	0
6:15 AM	0	5	0	0	0	0	0	0	0	5	1	0	0	0	1	0
6:30 AM	1	7	0	0	2	3	0	0	0	10	1	0	0	0	0	0
6:45 AM	0	8	0	0	2	2	0	0	0	19	1	0	0	0	1	0
7:00 AM	0	6	0	0	1	0	1	0	0	19	1	0	2	0	0	0
7:15 AM	0	12	0	0	2	4	4	0	0	32	3	0	0	0	1	0
7:30 AM	1	20	0	0	4	3	0	0	0	26	2	0	1	0	1	0
7:45 AM	3	29	0	0	8	5	0	0	0	70	4	0	2	0	1	0
8:00 AM	1	15	0	0	4	3	1	0	0	32	3	0	1	1	0	0
8:15 AM	1	15	0	0	5	2	1	0	0	20	0	0	1	0	2	0
8:30 AM	4	18	0	0	6	4	0	0	0	31	1	1	0	0	1	0
8:45 AM	6	28	0	0	4	2	0	0	0	52	2	0	3	0	0	0
9:00 AM	3	31	0	0	3	2	2	0	0	21	0	0	3	0	1	0
9:15 AM	1	20	0	0	5	0	2	0	0	20	1	0	1	1	2	0
9:30 AM	3	27	0	0	8	1	0	0	0	30	0	0	2	0	1	0
9:45 AM	6	32	0	0	6	3	1	0	0	35	0	0	2	0	2	0
10:00 AM	4	38	0	0	10	2	6	0	0	24	0	0	2	0	0	0
10:15 AM	4	45	0	0	9	3	6	0	0	27	0	0	3	0	2	0
10:30 AM	1	22	0	0	8	1	3	0	0	24	3	0	1	0	4	0
10:45 AM	2	39	0	0	10	6	1	0	0	18	0	0	1	0	2	0
11:00 AM	7	42	0	0	10	4	4	0	0	22	2	0	1	0	0	0
11:15 AM	4	36	0	0	10	2	5	0	0	22	1	0	1	0	3	0
11:30 AM	5	42	0	0	6	4	7	0	0	31	0	0	1	0	2	0
11:45 AM	3	49	0	0	8	3	4	0	0	44	2	0	2	0	3	0
12:00 PM	2	58	0	0	10	7	6	0	0	34	3	0	5	0	6	0
12:15 PM	3	49	0	0	14	4	3	0	0	34	6	0	0	0	2	0
12:30 PM	2	46	0	0	6	6	6	0	0	45	2	0	1	0	1	0
12:45 PM	2	53	0	0	9	8	5	0	0	47	4	0	6	0	0	0
1:00 PM	2	47	0	0	10	12	11	0	0	30	2	0	4	0	2	0
1:15 PM	3	45	0	0	14	9	7	0	0	37	1	0	2	0	1	0
1:30 PM	3	41	0	0	13	4	5	0	0	42	1	0	4	0	3	0
1:45 PM	5	37	0	0	13	3	5	0	0	33	2	0	3	0	3	0
2:00 PM	2	42	0	0	16	6	12	0	0	44	2	0	2	0	1	0
2:15 PM	2	56	0	0	12	5	4	0	0	37	1	0	5	0	3	0
2:30 PM	3	55	0	0	12	6	6	0	0	34	1	0	2	0	6	0
2:45 PM	3	52	0	0	11	7	8	0	0	23	1	0	2	0	3	0
3:00 PM	4	51	0	0	9	6	5	0	0	35	0	0	2	0	3	0
3:15 PM	2	48	0	0	10	2	2	0	0	30	1	0	0	0	0	0
3:30 PM	2	62	0	0	10	2	5	0	0	31	2	0	1	0	1	0
3:45 PM	2	67	0	0	10	2	8	0	0	44	0	0	0	0	1	0
4:00 PM	4	70	0	0	16	4	14	0	0	59	3	0	9	0	6	0
4:15 PM	2	50	0	0	15	3	6	0	0	45	1	0	2	0	1	0
4:30 PM	0	64	0	0	17	6	5	0	0	44	1	0	1	0	5	0
4:45 PM	3	80	0	0	11	8	4	0	0	38	4	0	5	0	5	0
5:00 PM	8	106	0	0	14	7	10	0	0	52	0	0	3	0	3	0
5:15 PM	4	73	1	0	19	6	7	0	0	53	1	0	5	0	1	0
5:30 PM	0	59	0	0	9	6	2	0	0	34	1	0	2	0	0	0
5:45 PM	0	52	0	0	9	1	1	0	0	41	2	0	1	0	1	0
6:00 PM	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0

Study Name **Location 60 3rd St & Spring St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Spring St Westbound				3rd St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0
7:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	2	1	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	2	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	1	0	0	2	0	0	0	0	3	0	0	0	0	0	0
10:45 AM	1	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0
11:00 AM	0	0	0	0	3	0	0	0	0	2	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0
12:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	1	0	0	0	0	3	0	0	0	0	1	0
12:30 PM	0	1	0	0	2	0	1	0	0	0	0	0	0	0	1	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:00 PM	0	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0
1:15 PM	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0
3:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	2	0	1	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 60 3rd St & Spring St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Spring St Westbound				3rd St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 60 3rd St & Spring St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Spring St Crossing East Leg	3rd St Crossing South Leg	Spring St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	2	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	1
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	1	3	0
7:45 AM	0	2	1	4
8:00 AM	5	0	0	1
8:15 AM	4	1	1	0
8:30 AM	1	2	1	0
8:45 AM	3	2	0	0
9:00 AM	1	0	0	0
9:15 AM	4	2	0	0
9:30 AM	2	0	0	3
9:45 AM	2	1	1	0
10:00 AM	0	3	3	0
10:15 AM	0	2	0	7
10:30 AM	2	3	0	6
10:45 AM	1	4	2	2
11:00 AM	1	2	1	4
11:15 AM	1	4	2	3
11:30 AM	1	4	1	1
11:45 AM	0	1	1	1
12:00 PM	4	3	1	6
12:15 PM	3	3	4	1
12:30 PM	5	1	1	5
12:45 PM	7	5	0	3
1:00 PM	7	8	9	1
1:15 PM	3	1	1	2
1:30 PM	10	4	4	2
1:45 PM	3	5	1	1
2:00 PM	6	3	2	6
2:15 PM	5	6	4	2
2:30 PM	6	3	1	2
2:45 PM	6	4	2	5
3:00 PM	3	1	0	0
3:15 PM	5	0	3	2
3:30 PM	6	1	1	4
3:45 PM	3	0	1	4
4:00 PM	2	5	0	1
4:15 PM	1	3	1	0
4:30 PM	5	5	2	0
4:45 PM	8	1	1	3
5:00 PM	2	4	1	1
5:15 PM	2	3	0	0
5:30 PM	5	1	0	1
5:45 PM	2	2	0	2
6:00 PM	0	0	0	0

Study Name **Location 60 3rd St & Spring St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Spring St Crossing East Leg	3rd St Crossing South Leg	Spring St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	1
8:00 AM	0	0	0	0
8:15 AM	1	0	0	0
8:30 AM	0	0	0	0
8:45 AM	2	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	1
9:30 AM	0	0	0	0
9:45 AM	1	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	2	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	1	0	0
11:15 AM	3	1	0	0
11:30 AM	1	1	0	0
11:45 AM	2	1	0	0
12:00 PM	1	1	0	0
12:15 PM	1	1	0	0
12:30 PM	1	0	0	1
12:45 PM	1	1	0	1
1:00 PM	0	0	0	0
1:15 PM	1	0	0	0
1:30 PM	6	0	0	1
1:45 PM	1	0	0	0
2:00 PM	4	0	0	1
2:15 PM	0	0	0	0
2:30 PM	7	0	1	2
2:45 PM	2	1	0	1
3:00 PM	3	0	0	0
3:15 PM	1	2	0	0
3:30 PM	1	0	0	2
3:45 PM	1	0	0	1
4:00 PM	0	1	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	6	1	0	0
5:15 PM	3	0	0	0
5:30 PM	0	0	0	0
5:45 PM	1	2	0	0
6:00 PM	0	0	0	0

Study Name **Location 60 3rd St & Spring St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Spring St Westbound				3rd St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	0	0	1	0	0	0	0	8	0	0	0	0	0	0
6:15 AM	0	5	0	0	0	0	0	0	0	5	1	0	0	0	1	0
6:30 AM	1	7	0	0	3	3	0	0	0	10	1	0	0	0	0	0
6:45 AM	0	9	0	0	2	3	0	0	0	20	1	0	0	0	2	0
7:00 AM	0	6	0	0	4	0	1	0	0	20	1	0	2	0	0	0
7:15 AM	0	12	0	0	2	4	5	0	0	32	3	0	0	0	1	0
7:30 AM	1	21	0	0	6	4	0	0	0	27	2	0	1	0	1	0
7:45 AM	3	30	0	0	8	5	0	0	0	70	4	0	2	0	1	0
8:00 AM	1	16	0	0	6	3	1	0	0	34	3	0	1	0	0	0
8:15 AM	1	17	0	0	5	2	1	0	0	20	0	0	1	0	2	0
8:30 AM	4	19	0	0	8	4	0	0	0	31	1	1	0	0	1	0
8:45 AM	6	29	0	0	4	2	0	0	0	52	2	0	4	0	0	0
9:00 AM	3	31	0	0	5	2	2	0	0	22	0	0	3	0	1	0
9:15 AM	1	21	0	0	5	0	2	0	0	20	1	0	1	1	2	0
9:30 AM	3	27	0	0	10	1	0	0	0	32	0	0	2	0	1	0
9:45 AM	6	33	0	0	6	3	1	0	0	36	0	0	2	0	2	0
10:00 AM	4	39	0	0	14	2	6	0	0	25	0	0	2	0	0	0
10:15 AM	4	46	0	0	9	3	6	0	0	27	0	0	3	0	2	0
10:30 AM	1	23	0	0	10	1	3	0	0	28	3	0	1	0	4	0
10:45 AM	3	40	0	0	10	6	1	0	0	20	0	0	2	0	2	0
11:00 AM	7	42	0	0	13	4	4	0	0	25	2	0	1	0	0	0
11:15 AM	4	36	0	0	10	2	5	0	0	23	1	0	1	0	3	0
11:30 AM	5	42	0	0	8	4	7	0	0	31	0	0	1	0	2	0
11:45 AM	3	49	0	0	8	4	4	0	0	46	2	0	2	0	3	0
12:00 PM	2	59	0	0	12	7	6	0	0	35	3	0	5	0	6	0
12:15 PM	3	49	0	0	15	4	3	0	0	37	6	0	0	0	3	0
12:30 PM	2	47	0	0	8	6	7	0	0	45	2	0	1	0	2	0
12:45 PM	2	54	0	0	9	8	5	0	0	47	5	0	6	0	0	0
1:00 PM	2	47	0	0	12	12	12	0	0	32	2	0	4	0	2	0
1:15 PM	3	47	0	0	14	10	7	0	0	38	1	0	2	0	1	0
1:30 PM	3	41	0	0	15	4	5	0	0	43	1	0	4	0	3	0
1:45 PM	5	39	0	0	13	3	5	0	0	34	2	0	3	0	3	0
2:00 PM	2	42	0	0	18	6	12	0	0	44	2	0	2	0	1	0
2:15 PM	3	57	0	0	12	5	4	0	0	37	2	0	5	0	3	0
2:30 PM	3	56	0	0	14	6	6	0	0	34	1	0	2	0	6	0
2:45 PM	3	53	0	0	11	7	8	0	0	24	1	0	2	0	3	0
3:00 PM	4	51	0	0	11	6	5	0	0	39	0	0	2	0	3	0
3:15 PM	2	48	0	0	11	3	2	0	0	30	1	0	0	0	1	0
3:30 PM	2	62	0	0	12	2	5	0	0	31	2	0	1	0	1	0
3:45 PM	2	68	0	0	11	2	8	0	0	44	0	0	0	0	1	0
4:00 PM	4	70	0	0	19	4	14	0	0	61	3	0	9	0	6	0
4:15 PM	2	51	0	0	15	3	7	0	0	45	1	0	2	0	1	0
4:30 PM	0	65	0	0	19	6	6	0	0	44	1	0	1	0	5	0
4:45 PM	3	80	0	0	12	8	4	0	0	39	4	0	5	0	5	0
5:00 PM	8	106	0	0	16	7	11	0	0	53	0	0	3	0	3	0
5:15 PM	4	73	1	0	20	6	7	0	0	53	1	0	5	0	1	0
5:30 PM	0	59	0	0	11	6	2	0	0	34	1	0	2	0	0	0
5:45 PM	0	52	0	0	10	1	1	0	0	41	2	0	1	0	1	0
6:00 PM	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0

Study Name Location 61 US 41, Washington St, & Meeske Ave
Date 12/03/2013
Time 6:00 AM
Location Marquette, MI

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	2TF	2TF	2TF	22U	22U	2TF	2TF	2TF	2TF	3A1	3A1	3A1	22U	22U	3A1	3HS
	Meeske to Washington	Meeske to US 41 SEB	Meeske to Washington	Parking Lot to Washington	WB Washington to Parking Lot	Waskington to Meeske	Thru at Meeske	Washington to US 41 SEB	WB Washington to EB Washington	US 41 to Washington	Thru south of Meeske	US 41 NWB to US 41 SEB	EB Washington to Parking Lot	EB Washington to WB Washington	Thru south of Meeske	US 41 SEB to Washington
	Meeske Ave Southbound			Parking Lot Southwestbound	Washington St Westbound					US 41 Northwestbound			Washington St Eastbound		US 41 Southeastbound	
Start Time	Right	Bear Left	Left	Bear Right	Hard Right	Right	Thru	Left	U-Turn	Hard Right	Thru	U-Turn	Left	U-Turn	Thru	Bear Left
6:00 AM	3	0	3	0	0	1	19	0	0	0	46	0	0	0	22	33
6:15 AM	0	3	4	0	0	1	27	0	0	0	49	0	0	0	16	56
6:30 AM	3	1	3	0	0	3	23	0	0	0	58	0	0	1	36	81
6:45 AM	1	7	6	0	1	4	38	0	1	0	79	0	0	1	46	64
7:00 AM	5	5	2	0	0	6	40	0	0	0	47	0	0	3	57	79
7:15 AM	3	6	8	1	0	8	52	1	0	4	92	0	2	5	76	80
7:30 AM	2	8	3	0	0	9	68	1	0	0	110	0	3	2	119	129
7:45 AM	2	11	11	1	0	8	66	0	1	2	170	0	1	5	144	125
8:00 AM	3	5	6	1	0	7	79	2	0	5	108	0	5	3	83	91
8:15 AM	4	8	9	1	0	7	61	3	0	2	108	0	4	4	95	119
8:30 AM	3	13	6	3	0	8	84	5	1	2	123	0	2	2	83	111
8:45 AM	6	5	9	2	0	13	85	2	3	2	120	0	2	6	97	103
9:00 AM	4	7	3	2	0	11	94	2	0	2	129	0	4	6	68	78
9:15 AM	4	2	2	4	0	9	106	0	2	2	105	0	3	1	59	99
9:30 AM	2	4	4	8	2	7	105	4	3	3	96	0	3	3	104	117
9:45 AM	6	8	6	8	0	11	122	2	1	1	127	0	2	3	120	104
10:00 AM	10	6	10	3	2	7	111	0	3	0	122	0	0	3	88	103
10:15 AM	8	3	5	1	0	12	111	2	2	2	106	0	2	5	96	116
10:30 AM	8	2	5	2	0	5	127	1	3	1	128	0	0	1	115	129
10:45 AM	4	2	5	2	0	9	131	0	2	3	117	0	3	4	96	99
11:00 AM	6	6	4	4	1	12	151	3	1	5	111	0	1	2	105	115
11:15 AM	4	4	6	4	1	14	136	1	3	0	126	0	0	4	112	119
11:30 AM	3	5	7	3	0	14	131	4	4	5	122	0	4	4	122	141
11:45 AM	3	3	7	5	1	10	168	2	3	3	149	0	3	3	112	159
12:00 PM	10	4	1	5	0	7	185	3	4	4	145	0	0	4	125	140
12:15 PM	6	7	7	3	0	13	150	6	4	5	130	0	4	3	140	162
12:30 PM	8	5	7	7	0	14	161	3	5	2	108	0	2	5	138	164
12:45 PM	4	12	8	4	0	14	163	2	3	2	124	0	6	5	126	160
1:00 PM	4	1	8	3	1	10	175	5	2	2	146	0	0	9	132	125
1:15 PM	10	3	18	2	1	12	158	2	4	1	136	0	2	6	151	158
1:30 PM	7	6	9	3	0	8	168	1	3	2	119	0	1	6	151	145
1:45 PM	5	9	9	1	1	21	157	0	3	4	130	0	2	7	137	138
2:00 PM	7	7	8	3	1	6	155	5	1	1	142	0	5	1	145	156
2:15 PM	5	9	4	3	1	14	172	3	3	2	139	0	3	3	151	131
2:30 PM	7	3	6	5	0	12	194	6	6	5	152	0	5	3	163	149
2:45 PM	8	7	5	5	0	9	169	3	3	2	133	1	4	6	167	127
3:00 PM	5	10	7	5	0	9	166	7	2	3	144	0	4	5	154	138
3:15 PM	7	6	7	4	0	17	164	3	2	2	132	0	3	6	163	126
3:30 PM	8	10	9	3	0	16	173	6	4	1	138	0	1	7	170	139
3:45 PM	4	10	2	4	0	17	191	5	2	1	170	0	3	5	143	136
4:00 PM	6	6	9	2	0	20	188	3	2	3	176	0	3	7	200	129
4:15 PM	2	5	6	5	1	10	176	9	6	1	149	0	0	1	180	120
4:30 PM	6	16	7	4	0	13	172	6	5	0	166	0	3	1	215	137
4:45 PM	11	16	12	7	1	8	190	11	8	2	181	0	5	3	169	117
5:00 PM	5	13	11	2	0	15	209	8	2	1	218	0	3	2	205	116
5:15 PM	6	13	6	3	0	7	169	7	3	1	140	0	2	4	199	131
5:30 PM	6	10	6	0	0	8	152	3	0	4	131	0	1	3	162	132
5:45 PM	2	8	4	0	0	10	142	2	2	6	126	0	5	5	145	113

Study Name Location 61 US 41, Washington St, & Meeske Ave
Date 12/03/2013
Time 6:00 AM
Location Marquette, MI

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	2TF	2TF	2TF	22U	22U	2TF	2TF	2TF	2TF	3A1	3A1	3A1	22U	22U	3A1	3HS
	Meeske to Washington	Meeske to US 41 SEB	Meeske to Washington	Parking Lot to Washington	WB Washington to Parking Lot	Waskington to Meeske	Thru at Meeske	Washington to US 41 SEB	WB Washington to EB Washington	US 41 to Washington	Thru south of Meeske	US 41 NWB to US 41 SEB	EB Washington to Parking Lot	EB Washington to WB Washington	Thru south of Meeske	US 41 SEB to Washington
	Meeske Ave Southbound			Parking Lot Southwestbound	Washington St Westbound					US 41 Northwestbound			Washington St Eastbound		US 41 Southeastbound	
Start Time	Right	Bear Left	Left	Bear Right	Hard Right	Right	Thru	Left	U-Turn	Hard Right	Thru	U-Turn	Left	U-Turn	Thru	Bear Left
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
6:15 AM	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	3
6:45 AM	0	0	0	0	0	0	1	0	0	0	3	0	0	0	1	1
7:00 AM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	1	2
7:15 AM	0	0	0	0	0	1	1	0	0	0	1	0	0	1	1	3
7:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	2
7:45 AM	1	0	0	0	0	0	2	0	0	0	0	0	0	0	2	2
8:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	1
8:15 AM	0	0	1	0	0	1	2	0	0	0	5	0	0	2	0	3
8:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	3	2
8:45 AM	0	0	0	0	0	1	1	0	0	0	2	0	0	1	0	5
9:00 AM	1	0	0	0	0	1	2	0	0	0	4	0	0	1	3	4
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2
9:30 AM	0	0	0	0	0	1	1	0	0	0	1	0	0	1	8	3
9:45 AM	0	0	0	0	0	1	3	0	0	0	3	0	0	0	4	2
10:00 AM	0	0	0	0	0	1	5	0	0	0	5	0	0	1	5	2
10:15 AM	0	0	1	0	0	0	1	0	0	0	5	0	0	0	3	2
10:30 AM	0	0	0	0	0	1	2	0	0	0	2	0	0	1	7	4
10:45 AM	0	0	1	0	0	1	2	0	0	0	1	0	0	0	4	4
11:00 AM	1	0	0	0	0	1	1	0	0	0	2	0	0	1	0	2
11:15 AM	0	0	0	0	0	1	1	0	0	0	2	0	0	1	1	4
11:30 AM	0	0	0	0	0	0	1	0	0	0	3	0	0	0	3	4
11:45 AM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	2	2
12:00 PM	0	0	0	0	0	2	2	0	0	0	2	0	0	1	1	1
12:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	2
12:30 PM	0	0	0	0	0	3	1	1	0	0	3	0	0	1	2	2
12:45 PM	0	0	0	0	0	0	2	0	0	0	3	0	0	0	1	1
1:00 PM	0	1	0	0	0	3	4	0	0	0	1	0	0	1	2	2
1:15 PM	0	0	0	0	0	0	3	0	0	0	2	0	1	0	1	1
1:30 PM	0	0	0	0	0	1	1	0	0	0	2	0	0	2	3	3
1:45 PM	1	0	0	0	0	0	1	0	0	0	2	0	0	0	5	1
2:00 PM	0	0	0	0	0	1	3	1	0	0	1	0	0	1	1	2
2:15 PM	0	0	0	0	0	0	2	0	1	0	1	0	0	0	0	2
2:30 PM	0	0	0	0	0	1	2	0	0	0	2	0	0	1	2	6
2:45 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	2
3:00 PM	0	0	0	0	0	1	3	0	0	0	6	0	0	1	2	2
3:15 PM	0	0	1	0	0	0	1	0	0	0	4	0	0	0	2	4
3:30 PM	0	0	0	0	0	2	0	0	0	0	3	0	0	1	2	4
3:45 PM	0	0	0	0	0	1	1	0	0	0	1	0	0	0	5	4
4:00 PM	1	0	0	0	0	0	1	0	0	0	4	0	0	1	2	2
4:15 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	2	0
4:30 PM	0	1	0	0	0	0	2	0	0	0	3	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	1	0	0	0	2	0	0	1	0	2
5:00 PM	0	0	0	0	0	1	2	0	0	0	5	0	0	0	0	3
5:15 PM	0	1	0	1	0	0	2	0	0	0	2	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	3	0	0	0	1	0	0	0	0	2

Study Name Location 61 US 41, Washington St, & Meeske Ave
Date 12/03/2013
Time 6:00 AM
Location Marquette, MI

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	2TF	2TF	2TF	22U	22U	2TF	2TF	2TF	2TF	3A1	3A1	3A1	22U	22U	3A1	3HS
	Meeske to Washington	Meeske to US 41 SEB	Meeske to Washington	Parking Lot to Washington	WB Washington to Parking Lot	Waskington to Meeske	Thru at Meeske	Washington to US 41 SEB	WB Washington to EB Washington	US 41 to Washington	Thru south of Meeske	US 41 NWB to US 41 SEB	EB Washington to Parking Lot	EB Washington to WB Washington	Thru south of Meeske	US 41 SEB to Washington
	Meeske Ave Southbound			Parking Lot Southwestbound	Washington St Westbound					US 41 Northwestbound			Washington St Eastbound		US 41 Southeastbound	
Start Time	Right	Bear Left	Left	Bear Right	Hard Right	Right	Thru	Left	U-Turn	Hard Right	Thru	U-Turn	Left	U-Turn	Thru	Bear Left
6:00 AM	1	0	0	0	0	0	1	0	0	0	5	0	0	0	0	0
6:15 AM	1	0	0	0	0	0	1	0	0	0	6	0	0	0	2	2
6:30 AM	1	0	0	0	0	0	2	0	0	0	4	0	0	0	1	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1
7:15 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	5	0	0	0	6	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0
8:30 AM	0	1	1	0	0	0	1	0	0	0	1	0	0	0	5	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	1
9:00 AM	0	0	0	0	0	0	2	0	0	0	5	0	0	0	3	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	1
9:30 AM	0	0	0	0	0	0	1	0	0	0	5	0	0	0	1	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	3	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	3	2
10:15 AM	0	0	0	0	0	0	1	1	0	0	1	0	0	0	5	1
10:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0
10:45 AM	0	0	0	0	0	0	1	0	0	0	6	0	0	0	3	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0
11:30 AM	0	0	0	0	0	0	1	0	0	0	4	0	0	0	3	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0
12:00 PM	1	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	1
12:30 PM	0	0	0	0	0	0	1	0	0	0	4	0	0	0	2	0
12:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	3	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0
1:15 PM	0	0	0	0	0	1	0	0	0	0	4	0	0	1	3	2
1:30 PM	0	1	0	0	0	0	0	0	0	0	4	0	0	0	1	0
1:45 PM	1	0	0	0	0	0	2	0	0	0	3	0	0	0	2	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0
2:30 PM	1	1	0	0	0	0	0	0	0	0	1	0	0	0	5	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6	1
3:00 PM	0	0	0	0	0	1	0	0	0	0	4	0	0	1	3	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	4	0	0	0	7	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	1	1
3:45 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	2	0
4:00 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	1	6	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	5	0
4:30 PM	0	0	0	0	0	1	2	0	0	0	5	0	0	1	2	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0
5:45 PM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1

Study Name **Location 61 US 41, Washington St, & Meeske Ave**
Date **12/03/2013**
Time **6:00 AM**
Location **Marquette, MI**

	Meeske Ave Crossing North Leg	Parking Lot Crossing Northeast Leg	Washington St Crossing East Leg	US 41 Crossing Southeast Leg	Washington St Crossing West Leg	US 41 Crossing Northwest Leg
Start Time	Peds	Peds	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0
11:00 AM	3	3	0	0	0	1
11:15 AM	0	0	2	0	0	0
11:30 AM	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0
1:45 PM	1	0	0	0	0	0
2:00 PM	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0
3:00 PM	1	1	0	0	0	0
3:15 PM	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0
4:00 PM	1	1	0	0	0	0
4:15 PM	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0
5:00 PM	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0

Study Name Location 61 US 41, Washington St, & Meeske Ave
Date 12/03/2013
Time 6:00 AM
Location Marquette, MI

	1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	
	2TF	2TF	2TF	22U	22U	2TF	2TF	2TF	2TF	3A1	3A1	3A1	22U	22U		3A1	3HS	
	Meeske to Washington	Meeske to US 41 SEB	Meeske to Washington	Parking Lot to Washington	WB Washington to Parking Lot	Waskington to Meeske	Thru at Meeske	Washington to US 41 SEB	WB Washington to EB Washington	US 41 to Washington	Thru south of Meeske	US 41 NWB to US 41 SEB	EB Washington to Parking Lot	EB Washington to WB Washington		Thru south of Meeske	US 41 SEB to Washington	
	Meeske Ave Southbound			Parking Lot Southwestbound	Washington St Westbound					US 41 Northwestbound			Washington St Eastbound			US 41 Southeastbound		
Start Time	Right	Bear Left	Left	Bear Right	Hard Right	Right	Thru	Left	U-Turn	Hard Right	Thru	U-Turn	Left	U-Turn	Thru	Thru	Bear Left	TOTAL
6:00 AM	4	0	3	0	0	1	20	0	0	0	51	0	0	0	37	23	34	173
6:15 AM	1	3	4	0	0	1	30	0	0	0	57	0	0	0	64	18	60	238
6:30 AM	4	1	3	0	0	3	26	0	0	0	63	0	0	1	86	37	84	308
6:45 AM	1	7	6	0	1	4	39	0	1	0	86	0	0	1	72	50	66	334
7:00 AM	5	5	2	0	0	6	41	0	0	0	51	0	0	3	81	60	82	336
7:15 AM	3	6	8	1	0	9	54	1	0	4	94	0	2	6	88	79	84	439
7:30 AM	2	8	3	0	0	9	69	1	0	0	116	0	3	2	129	122	131	595
7:45 AM	3	11	11	1	0	8	69	0	1	2	175	0	1	5	135	152	127	701
8:00 AM	3	5	6	1	0	7	81	2	0	5	115	0	5	3	95	86	92	506
8:15 AM	4	8	10	1	0	8	63	3	0	2	116	0	4	6	124	96	122	567
8:30 AM	3	14	7	3	0	8	86	6	1	2	124	0	2	3	118	91	113	581
8:45 AM	6	5	9	2	0	14	86	2	3	2	123	0	2	7	114	100	109	584
9:00 AM	5	7	3	2	0	12	98	2	0	2	138	0	4	7	76	74	82	512
9:15 AM	4	2	2	4	0	9	106	0	2	2	108	0	3	1	104	72	102	521
9:30 AM	2	4	4	8	2	8	107	4	3	3	102	0	3	4	124	113	121	612
9:45 AM	6	8	6	8	0	12	125	2	1	1	139	0	2	3	109	127	106	655
10:00 AM	10	6	10	3	2	8	116	0	3	0	129	0	0	5	115	96	107	610
10:15 AM	8	3	6	1	0	12	113	3	2	2	112	0	2	5	122	104	119	614
10:30 AM	8	2	5	2	0	6	129	1	3	1	133	0	0	2	140	129	133	694
10:45 AM	4	2	6	2	0	10	134	0	2	3	124	0	3	4	107	103	103	607
11:00 AM	7	6	4	4	1	13	152	3	1	5	117	0	1	3	123	107	117	664
11:15 AM	4	4	6	4	1	15	137	1	3	0	133	0	0	5	127	114	123	677
11:30 AM	3	5	7	3	0	14	133	4	4	5	129	0	4	4	153	128	145	741
11:45 AM	3	3	7	5	1	10	169	2	3	3	152	0	3	3	168	116	161	809
12:00 PM	11	4	1	5	0	9	187	3	4	4	150	0	0	5	145	127	141	796
12:15 PM	6	7	7	3	0	14	150	6	4	5	135	0	4	3	174	147	165	830
12:30 PM	8	5	7	7	0	17	163	4	5	2	115	0	2	6	172	142	166	821
12:45 PM	4	12	8	4	0	15	165	2	3	2	128	0	6	6	163	130	162	810
1:00 PM	4	2	8	3	1	13	179	5	2	2	149	0	0	10	129	135	127	769
1:15 PM	10	3	18	2	1	13	161	2	4	1	142	0	3	7	174	155	161	857
1:30 PM	7	7	9	3	0	9	169	1	3	2	125	0	1	8	153	155	148	800
1:45 PM	7	9	9	1	1	21	160	0	3	4	135	0	2	7	146	144	139	788
2:00 PM	7	7	8	3	1	7	158	6	1	1	148	0	5	2	161	149	158	822
2:15 PM	5	9	4	3	1	14	174	3	4	2	143	0	3	3	137	153	133	791
2:30 PM	8	4	6	5	0	13	196	6	6	5	155	0	5	4	164	170	156	903
2:45 PM	8	7	5	5	0	9	170	3	3	2	139	1	4	6	130	175	130	797
3:00 PM	5	10	7	5	0	11	169	7	2	3	154	0	4	7	141	159	140	824
3:15 PM	7	7	8	4	0	17	165	3	2	2	140	0	3	6	133	172	130	799
3:30 PM	8	10	9	3	0	18	173	6	4	1	147	0	1	8	149	173	144	854
3:45 PM	4	10	2	4	0	20	192	5	2	1	172	0	3	5	137	150	140	847
4:00 PM	7	6	9	2	0	21	189	3	2	3	182	0	3	9	133	208	131	908
4:15 PM	2	6	6	5	1	10	176	9	6	2	155	0	0	1	133	187	120	819
4:30 PM	6	17	7	4	0	14	176	6	5	0	174	0	3	2	146	217	139	916
4:45 PM	11	16	12	7	1	8	191	11	8	2	187	0	5	4	132	173	119	887
5:00 PM	5	13	11	2	0	16	211	8	2	1	228	0	3	2	128	205	119	954
5:15 PM	6	14	6	4	0	7	171	7	3	1	146	0	2	4	136	200	132	839
5:30 PM	6	10	6	0	0	8	153	3	0	4	136	0	1	3	138	163	132	763
5:45 PM	3	8	4	0	0	11	145	2	2	6	128	0	5	5	118	146	116	699

Study Name **Location 62 McClellan Ave & Ridge St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Ridge St Westbound				McClellan Ave Northbound				Ridge St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	11	1	0	0	0	0	0	0	8	1	0	1	0	0	0
6:15 AM	2	11	0	0	0	1	0	0	1	24	1	0	2	1	3	0
6:30 AM	4	31	2	0	1	1	0	0	0	32	6	0	1	1	4	0
6:45 AM	6	22	1	0	1	2	1	0	1	65	2	0	4	2	9	0
7:00 AM	7	27	2	0	1	1	0	0	1	116	6	0	6	0	7	0
7:15 AM	5	51	2	0	1	1	0	0	2	118	10	0	4	2	9	0
7:30 AM	3	61	4	0	0	1	1	0	3	112	11	0	7	4	10	0
7:45 AM	19	65	1	0	4	3	0	0	5	118	15	0	10	4	10	0
8:00 AM	10	51	5	0	1	3	0	0	3	71	11	0	13	5	12	0
8:15 AM	12	37	2	0	1	4	2	0	4	72	15	0	4	6	8	0
8:30 AM	18	63	3	0	2	1	2	0	4	77	11	0	6	8	15	0
8:45 AM	12	63	3	0	6	7	2	0	5	133	15	0	13	9	9	0
9:00 AM	14	51	4	0	2	6	1	0	6	70	8	0	11	8	9	0
9:15 AM	14	62	2	0	2	4	2	0	4	62	9	0	10	1	10	0
9:30 AM	17	75	1	0	1	2	3	0	6	73	14	0	21	5	6	0
9:45 AM	12	76	4	0	1	4	1	0	5	74	18	0	17	4	12	0
10:00 AM	13	55	4	0	0	6	2	0	7	72	8	0	19	4	8	0
10:15 AM	16	79	4	0	0	5	2	0	0	72	10	0	19	1	16	0
10:30 AM	15	70	3	0	2	5	4	0	7	73	5	0	17	5	9	0
10:45 AM	16	58	3	0	6	4	3	0	6	50	16	0	22	4	13	0
11:00 AM	10	73	4	0	3	3	0	0	3	55	18	0	19	5	8	0
11:15 AM	21	63	4	0	3	4	4	0	4	68	10	0	22	6	10	0
11:30 AM	20	84	4	0	5	3	0	0	2	76	13	0	24	6	14	0
11:45 AM	26	81	2	0	4	6	5	0	7	59	20	0	20	8	10	0
12:00 PM	13	99	7	0	8	5	1	0	8	81	17	0	23	3	12	0
12:15 PM	7	69	6	0	3	4	1	0	4	89	20	0	26	8	13	0
12:30 PM	18	84	10	0	3	8	3	0	3	83	14	0	19	2	21	0
12:45 PM	14	82	6	0	7	8	4	0	8	85	27	0	26	6	19	0
1:00 PM	15	67	2	0	5	4	4	0	2	77	11	0	22	7	13	0
1:15 PM	14	60	1	0	3	2	5	0	7	79	9	0	21	13	9	0
1:30 PM	13	79	3	0	2	12	5	0	10	77	14	0	13	7	12	0
1:45 PM	13	89	3	0	6	4	8	0	6	90	12	0	18	5	7	0
2:00 PM	14	83	5	0	4	2	6	0	9	77	16	0	17	8	12	0
2:15 PM	15	79	4	0	5	3	2	0	3	80	11	0	15	5	10	0
2:30 PM	12	140	2	0	1	3	4	0	8	81	10	0	24	10	16	0
2:45 PM	15	98	3	0	0	12	5	0	4	75	14	0	12	3	11	0
3:00 PM	21	94	4	0	4	4	2	0	2	81	14	0	16	4	10	0
3:15 PM	12	104	1	0	2	3	3	0	4	56	20	0	27	4	10	0
3:30 PM	22	108	7	0	2	5	7	0	7	78	23	0	24	6	11	0
3:45 PM	19	87	3	0	2	8	3	0	7	93	24	0	26	9	10	0
4:00 PM	24	133	3	0	5	4	1	0	9	91	15	0	35	4	8	0
4:15 PM	23	99	6	0	7	7	4	0	2	97	18	0	25	7	8	0
4:30 PM	29	119	2	0	7	10	0	0	10	89	13	0	26	10	16	0
4:45 PM	28	114	6	0	7	7	7	0	7	72	17	0	21	3	16	0
5:00 PM	28	110	7	0	6	6	2	0	3	101	26	0	37	8	18	0
5:15 PM	27	122	3	0	7	2	2	0	9	75	21	0	31	6	10	0
5:30 PM	14	94	2	0	7	4	0	0	4	75	15	0	23	9	9	0
5:45 PM	17	77	3	0	3	2	4	0	2	78	9	0	23	11	16	0

Study Name **Location 62 McClellan Ave & Ridge St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Ridge St Westbound				McClellan Ave Northbound				Ridge St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
9:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0
9:45 AM	0	2	0	0	0	1	0	0	0	3	1	0	1	0	0	0
10:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	1	1	0	0
10:30 AM	0	2	0	0	0	0	1	0	0	3	1	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
11:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
11:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	1	4	2	0	0	0	1	0
12:00 PM	0	2	0	0	0	1	0	0	0	3	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	4	1	0	1	0	0	0
12:45 PM	1	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1:00 PM	1	2	0	0	0	0	1	0	0	3	0	0	1	0	0	0
1:15 PM	1	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:30 PM	1	1	0	0	0	0	0	0	0	2	3	0	0	0	0	0
2:45 PM	0	2	0	0	0	0	0	0	0	2	1	0	0	0	1	0
3:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	2	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
3:45 PM	1	1	0	0	0	1	0	0	0	2	1	0	1	0	1	0
4:00 PM	1	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 62 McClellan Ave & Ridge St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Ridge St Westbound				McClellan Ave Northbound				Ridge St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	2	1	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
10:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 62 McClellan Ave & Ridge St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Ridge St Crossing East Leg	McClellan Ave Crossing South Leg	Ridge St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	1	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	1	0	0	0
9:00 AM	1	1	0	0
9:15 AM	0	0	0	0
9:30 AM	1	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	1	0	0	0
12:15 PM	1	0	0	0
12:30 PM	0	0	0	0
12:45 PM	1	1	0	0
1:00 PM	1	0	1	0
1:15 PM	0	0	0	0
1:30 PM	0	0	1	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	1	0
2:45 PM	0	2	2	0
3:00 PM	2	0	0	0
3:15 PM	0	0	0	0
3:30 PM	1	0	0	0
3:45 PM	1	0	0	0
4:00 PM	1	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	0	2	0
5:15 PM	0	1	0	0
5:30 PM	0	1	0	0
5:45 PM	0	1	0	0

Study Name **Location 62 McClellan Ave & Ridge St**
Date **12/04/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Ridge St Westbound				McClellan Ave Northbound				Ridge St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	12	1	0	0	0	0	0	0	8	1	0	1	0	1	0
6:15 AM	3	12	0	0	0	1	0	0	1	24	1	0	2	1	3	0
6:30 AM	4	31	2	0	1	1	0	0	0	32	6	0	1	1	4	0
6:45 AM	6	23	1	0	1	2	1	0	1	66	2	0	4	2	9	0
7:00 AM	7	27	2	0	1	1	0	0	1	122	6	0	6	0	7	0
7:15 AM	6	52	2	0	1	1	0	0	2	119	10	0	5	2	9	0
7:30 AM	3	65	4	0	0	1	1	0	3	116	11	0	7	4	10	0
7:45 AM	19	67	1	0	4	3	0	0	5	118	15	0	10	4	10	0
8:00 AM	10	52	5	0	1	3	0	0	3	72	12	0	14	5	13	0
8:15 AM	12	37	3	0	1	4	2	0	4	72	15	0	4	6	8	0
8:30 AM	19	64	3	0	2	1	2	0	4	81	13	0	6	8	15	0
8:45 AM	12	64	3	0	6	7	2	0	5	136	15	0	14	9	9	0
9:00 AM	14	53	4	0	2	6	1	0	6	72	8	0	11	8	9	0
9:15 AM	14	62	2	0	2	4	2	0	4	65	9	0	10	1	10	0
9:30 AM	17	76	1	0	1	2	3	0	6	75	16	0	21	5	6	0
9:45 AM	12	78	4	0	1	5	1	0	5	78	19	0	18	4	12	0
10:00 AM	13	57	4	0	0	6	2	0	7	74	8	0	20	4	8	0
10:15 AM	16	82	4	0	0	5	2	0	0	74	10	0	20	2	16	0
10:30 AM	15	72	3	0	2	5	5	0	7	76	6	0	17	5	9	0
10:45 AM	16	59	3	0	6	4	3	0	6	52	16	0	23	4	13	0
11:00 AM	12	74	4	0	3	3	0	0	3	56	18	0	19	6	8	0
11:15 AM	22	66	4	0	3	4	4	0	4	70	11	0	22	6	10	0
11:30 AM	20	84	4	0	5	3	0	0	2	77	13	0	24	6	14	0
11:45 AM	26	82	2	0	4	6	5	0	8	63	22	0	20	8	11	0
12:00 PM	13	101	7	0	8	6	1	0	9	84	18	0	23	3	12	0
12:15 PM	7	72	6	0	3	4	1	0	4	92	20	0	27	8	13	0
12:30 PM	18	85	10	0	3	8	3	0	3	87	16	0	21	2	21	0
12:45 PM	15	86	6	0	7	8	4	0	8	89	27	0	26	6	19	0
1:00 PM	16	69	2	0	5	4	5	0	2	80	11	0	23	7	13	0
1:15 PM	15	62	1	0	3	2	5	0	7	81	10	0	22	13	9	0
1:30 PM	13	79	3	0	2	12	5	0	10	79	15	0	13	7	12	0
1:45 PM	13	90	3	0	6	4	8	0	6	92	12	0	18	5	7	0
2:00 PM	15	83	5	0	4	2	6	0	9	78	16	0	17	8	12	0
2:15 PM	15	81	4	0	5	3	2	0	3	80	11	0	16	5	10	0
2:30 PM	13	143	2	0	1	3	4	0	8	83	13	0	24	10	16	0
2:45 PM	15	100	3	0	0	12	5	0	4	78	15	0	12	3	12	0
3:00 PM	21	96	4	0	4	4	2	0	2	82	15	0	16	4	10	0
3:15 PM	14	104	1	0	2	3	4	0	4	59	20	0	27	4	10	0
3:30 PM	22	108	7	0	2	5	7	0	7	79	23	0	25	6	11	0
3:45 PM	20	88	3	0	2	9	3	0	7	97	25	0	27	9	11	0
4:00 PM	25	135	3	0	6	4	1	0	9	92	16	0	36	4	8	0
4:15 PM	23	99	6	0	7	7	4	0	2	101	19	0	25	7	8	0
4:30 PM	29	120	2	0	8	10	0	0	10	90	15	0	26	10	16	0
4:45 PM	28	115	6	0	7	7	7	0	7	77	17	0	21	3	17	0
5:00 PM	28	110	7	0	6	6	2	0	3	103	27	0	37	8	18	0
5:15 PM	27	122	3	0	7	3	2	0	9	76	21	0	31	7	10	0
5:30 PM	14	94	2	0	7	4	0	0	4	75	15	0	23	9	9	0
5:45 PM	17	77	3	0	3	2	4	0	2	79	9	0	23	11	16	0

Study Name **Location 63 McClellan Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Washington St Westbound				McClellan Ave Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	5	5	2	0	3	15	3	0	8	11	2	0	5	26	2	0
6:15 AM	4	11	2	0	2	25	3	0	14	18	1	0	5	45	4	0
6:30 AM	10	15	4	0	2	12	2	0	13	29	4	0	1	59	16	0
6:45 AM	8	12	5	0	5	28	6	0	15	46	3	0	1	54	15	0
7:00 AM	9	20	6	0	7	35	12	0	21	99	4	0	2	45	25	0
7:15 AM	11	33	9	0	7	46	16	0	33	102	4	0	0	55	21	0
7:30 AM	11	40	18	0	11	59	11	0	31	106	12	0	7	75	19	0
7:45 AM	18	45	15	0	11	51	11	0	24	106	15	0	6	109	30	0
8:00 AM	15	26	13	0	6	65	17	0	21	58	11	0	11	67	17	0
8:15 AM	9	22	8	0	13	49	14	0	23	62	12	0	8	69	21	0
8:30 AM	17	38	11	0	14	55	11	0	36	68	22	0	8	88	20	0
8:45 AM	9	44	28	0	14	67	26	0	28	110	18	0	9	75	27	0
9:00 AM	19	31	15	0	21	70	24	0	30	67	19	0	11	46	15	0
9:15 AM	20	47	11	0	9	81	14	0	24	61	20	0	11	62	16	0
9:30 AM	23	48	26	0	16	76	8	0	21	58	18	0	15	79	22	0
9:45 AM	28	43	24	0	14	84	18	0	28	83	16	0	11	79	22	0
10:00 AM	20	43	15	0	12	92	20	0	23	47	21	0	15	77	18	0
10:15 AM	24	56	14	0	12	77	20	0	26	57	26	0	11	93	23	0
10:30 AM	34	51	16	0	22	88	18	0	35	42	18	0	10	86	25	0
10:45 AM	27	57	13	0	16	102	10	0	29	54	19	0	12	61	17	0
11:00 AM	20	56	12	0	21	116	21	0	21	61	27	0	18	81	20	0
11:15 AM	44	37	22	0	15	86	19	0	31	54	12	0	14	89	25	0
11:30 AM	35	55	25	0	24	95	32	0	25	56	21	0	12	98	21	0
11:45 AM	39	48	25	0	24	142	22	0	37	59	24	0	16	116	20	0
12:00 PM	40	62	26	0	16	127	33	0	32	82	24	0	12	124	33	0
12:15 PM	28	57	22	0	22	108	21	0	30	58	21	0	21	119	35	0
12:30 PM	42	47	29	0	20	114	30	0	35	58	23	0	18	118	34	0
12:45 PM	35	55	27	0	20	116	25	0	25	63	19	0	17	119	33	0
1:00 PM	31	49	15	0	25	136	32	0	26	66	15	0	17	95	31	0
1:15 PM	26	47	30	0	24	112	32	0	29	58	15	0	18	117	31	0
1:30 PM	31	56	18	0	21	131	27	0	27	65	18	0	9	106	38	0
1:45 PM	36	63	24	0	26	127	30	0	27	72	16	0	12	100	29	0
2:00 PM	41	53	20	0	18	109	25	0	29	52	21	0	7	107	32	0
2:15 PM	38	60	14	0	18	133	41	0	29	61	25	0	12	104	31	0
2:30 PM	50	95	30	0	23	142	31	0	32	56	25	0	12	105	34	0
2:45 PM	38	68	19	0	18	110	27	0	29	71	21	0	15	94	29	0
3:00 PM	33	72	18	0	16	127	45	0	32	70	25	0	9	110	20	0
3:15 PM	38	72	30	0	29	113	30	0	28	49	18	2	13	91	19	0
3:30 PM	39	84	16	0	25	132	31	0	24	66	19	0	13	96	27	0
3:45 PM	39	69	24	0	25	141	42	0	36	85	24	0	11	109	26	0
4:00 PM	47	105	31	0	20	141	34	0	31	87	30	0	16	101	30	0
4:15 PM	49	60	31	0	30	135	24	0	27	79	22	0	16	87	27	0
4:30 PM	42	92	25	0	22	143	37	0	17	74	23	0	14	105	25	0
4:45 PM	45	87	22	0	30	145	26	0	36	70	22	0	19	102	27	0
5:00 PM	33	109	27	0	24	154	45	0	23	75	15	0	11	98	23	0
5:15 PM	33	99	31	0	22	133	32	0	22	60	18	0	11	92	30	0
5:30 PM	37	77	20	0	16	90	26	0	23	58	12	0	10	114	26	0
5:45 PM	33	61	24	0	15	98	32	0	25	57	11	0	7	86	18	0

Study Name **Location 63 McClellan Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Washington St Westbound				McClellan Ave Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 AM	0	0	1	0	0	1	1	0	1	0	1	0	0	2	0	0
6:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
6:45 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0
7:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
7:15 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	4	0	0
7:30 AM	0	1	0	0	3	1	0	0	0	2	0	0	0	2	0	0
7:45 AM	1	1	1	0	0	1	0	0	0	0	1	0	2	1	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0
8:15 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	2	0	0
8:30 AM	0	1	0	0	1	1	0	0	2	1	0	0	1	0	1	0
8:45 AM	0	1	0	0	0	0	0	0	1	3	0	0	0	2	0	0
9:00 AM	1	1	0	0	0	1	0	0	0	1	0	0	0	3	0	0
9:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
9:30 AM	1	0	0	0	2	1	1	0	1	4	0	0	0	2	0	0
9:45 AM	0	3	0	0	1	1	0	0	0	1	0	0	1	1	1	0
10:00 AM	0	2	0	0	0	5	1	0	0	1	0	0	0	0	0	0
10:15 AM	1	3	0	0	0	0	0	0	0	3	0	0	0	3	0	0
10:30 AM	0	2	0	0	1	2	0	0	0	3	0	0	2	2	0	0
10:45 AM	0	2	2	0	0	0	1	0	1	2	2	0	0	4	0	0
11:00 AM	0	0	0	0	0	1	1	0	1	1	1	0	0	0	2	0
11:15 AM	0	3	1	0	0	1	0	0	0	2	0	0	1	1	0	0
11:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	1	3	0	0
11:45 AM	0	1	0	0	3	2	0	0	0	3	1	0	0	1	1	0
12:00 PM	1	1	1	0	0	1	0	0	0	2	0	0	0	2	1	0
12:15 PM	0	1	0	0	0	0	1	0	1	2	0	0	1	3	0	0
12:30 PM	1	1	0	0	1	2	1	0	0	4	0	0	0	0	1	0
12:45 PM	1	3	0	0	0	1	0	0	0	4	0	0	0	0	0	0
1:00 PM	1	2	0	0	0	3	0	0	0	3	1	0	0	2	0	0
1:15 PM	0	2	0	0	0	0	0	0	0	3	1	0	0	1	0	0
1:30 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0
2:00 PM	0	0	0	0	0	3	0	0	1	1	1	0	0	0	0	0
2:15 PM	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0
2:30 PM	2	0	0	0	1	1	0	0	0	1	0	0	1	2	1	0
2:45 PM	0	1	0	0	1	1	0	0	0	2	0	0	0	2	0	0
3:00 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	1	0	0
3:15 PM	0	1	1	0	0	1	1	0	1	1	0	0	0	3	0	0
3:30 PM	0	1	0	0	1	0	0	0	1	0	0	0	0	3	1	0
3:45 PM	1	1	1	0	0	1	0	0	1	1	0	0	1	1	1	0
4:00 PM	0	3	0	0	1	1	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
4:30 PM	1	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0
5:00 PM	1	0	0	0	0	2	1	0	0	1	1	0	1	0	1	0
5:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	3	1	0	0	1	0	0	0	1	0	0
5:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0

Study Name **Location 63 McClellan Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Washington St Westbound				McClellan Ave Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
6:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:00 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0
7:15 AM	0	1	0	0	0	0	0	0	1	1	1	0	0	1	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	1	0	0	0	3	0	0	0	1	0	0
8:45 AM	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0
10:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
1:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0

Study Name **Location 63 McClellan Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Washington St Crossing East Leg	McClellan Ave Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	1	0	0
7:30 AM	0	2	1	1
7:45 AM	0	1	0	1
8:00 AM	0	1	0	0
8:15 AM	1	0	0	1
8:30 AM	1	1	0	0
8:45 AM	0	1	0	0
9:00 AM	0	0	0	0
9:15 AM	1	2	1	0
9:30 AM	0	2	0	1
9:45 AM	1	0	0	0
10:00 AM	0	1	1	0
10:15 AM	2	1	1	1
10:30 AM	0	0	2	0
10:45 AM	1	4	1	0
11:00 AM	1	0	0	0
11:15 AM	0	0	1	0
11:30 AM	0	0	1	0
11:45 AM	2	3	3	1
12:00 PM	0	1	0	0
12:15 PM	0	1	0	0
12:30 PM	0	0	0	0
12:45 PM	1	0	1	1
1:00 PM	1	2	1	0
1:15 PM	0	0	1	0
1:30 PM	1	1	1	1
1:45 PM	1	1	1	0
2:00 PM	0	1	4	0
2:15 PM	0	0	2	0
2:30 PM	1	4	4	0
2:45 PM	3	1	2	1
3:00 PM	0	0	1	0
3:15 PM	2	1	1	0
3:30 PM	1	2	2	1
3:45 PM	3	2	1	4
4:00 PM	0	3	2	0
4:15 PM	1	2	2	0
4:30 PM	0	1	1	0
4:45 PM	0	0	1	0
5:00 PM	1	0	0	0
5:15 PM	1	0	1	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 63 McClellan Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Washington St Westbound				McClellan Ave Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	6	5	2	0	3	15	6	0	8	11	2	0	5	27	2	0
6:15 AM	4	11	3	0	2	27	4	0	15	18	2	0	5	49	4	0
6:30 AM	10	15	4	0	2	15	2	0	13	29	4	0	1	62	16	0
6:45 AM	8	13	5	0	5	29	7	0	15	46	3	0	2	54	16	0
7:00 AM	9	20	6	0	9	36	12	0	21	102	4	0	2	46	26	0
7:15 AM	11	36	9	0	7	47	16	0	34	103	5	0	0	60	21	0
7:30 AM	11	43	18	0	14	60	11	0	31	109	12	0	7	77	19	0
7:45 AM	19	46	16	0	11	53	11	0	24	107	16	0	8	110	30	0
8:00 AM	15	27	13	0	6	66	17	0	21	60	11	0	11	69	17	0
8:15 AM	9	23	8	0	13	50	14	0	24	62	12	0	8	71	21	0
8:30 AM	17	40	11	0	15	57	11	0	38	72	22	0	9	89	21	0
8:45 AM	9	45	29	0	15	67	26	0	29	114	18	0	9	77	27	0
9:00 AM	20	32	15	0	21	72	24	0	30	71	19	0	11	49	15	0
9:15 AM	20	47	11	0	9	83	14	0	24	61	20	0	11	65	16	0
9:30 AM	24	50	26	0	18	78	9	0	22	62	18	0	15	82	22	0
9:45 AM	28	46	24	0	15	85	18	0	28	85	16	0	12	80	23	0
10:00 AM	20	46	15	0	12	98	21	0	23	48	21	0	15	77	19	0
10:15 AM	25	61	14	0	12	77	20	0	26	60	26	0	11	97	23	0
10:30 AM	34	53	16	0	23	90	18	0	35	45	18	0	12	88	25	0
10:45 AM	27	59	15	0	16	102	11	0	30	57	21	0	12	65	17	0
11:00 AM	20	57	12	0	21	118	22	0	23	62	28	0	18	81	22	0
11:15 AM	44	40	23	0	15	87	19	0	31	56	12	0	15	90	26	0
11:30 AM	35	55	25	0	25	97	32	0	25	56	21	0	13	101	21	0
11:45 AM	39	49	25	0	27	144	22	0	37	62	25	0	16	117	21	0
12:00 PM	41	63	27	0	16	128	33	0	32	86	24	0	12	126	34	0
12:15 PM	28	60	22	0	22	108	22	0	31	61	21	0	22	122	35	0
12:30 PM	43	50	29	0	21	117	31	0	35	63	23	0	18	118	35	0
12:45 PM	36	58	27	0	20	117	25	0	25	68	19	0	17	119	33	0
1:00 PM	32	52	15	0	25	139	32	0	28	69	16	0	17	97	31	0
1:15 PM	26	50	30	0	25	112	32	0	29	61	16	0	18	119	31	0
1:30 PM	31	56	18	0	22	131	28	0	27	67	18	0	9	107	38	0
1:45 PM	37	63	24	0	26	129	30	0	27	74	16	0	12	102	29	0
2:00 PM	41	53	20	0	18	112	25	0	30	53	22	0	7	107	32	0
2:15 PM	39	61	15	0	18	134	41	0	29	61	25	0	12	106	31	0
2:30 PM	52	97	30	0	24	143	31	0	32	57	25	0	13	108	36	0
2:45 PM	38	69	19	0	19	111	27	0	29	74	21	0	15	96	29	0
3:00 PM	34	73	18	0	17	128	45	0	32	73	26	0	9	111	20	0
3:15 PM	38	73	31	0	29	114	31	0	29	50	18	2	13	95	19	0
3:30 PM	39	86	16	0	26	132	31	0	25	66	19	0	13	99	28	0
3:45 PM	40	70	25	0	26	143	42	0	37	87	25	0	12	110	27	0
4:00 PM	47	109	31	0	21	142	34	0	31	87	30	0	16	101	31	0
4:15 PM	49	60	31	0	30	135	24	0	27	79	22	0	17	89	27	0
4:30 PM	43	92	25	0	23	144	37	0	17	74	25	0	14	106	25	0
4:45 PM	45	88	22	0	31	145	26	0	36	70	22	0	19	102	29	0
5:00 PM	34	109	27	0	24	156	46	0	24	78	16	0	12	98	24	0
5:15 PM	33	99	31	0	22	135	32	0	22	61	18	0	11	94	30	0
5:30 PM	37	77	20	0	16	93	27	0	23	59	12	0	10	115	26	0
5:45 PM	33	61	24	0	16	99	32	0	25	58	11	0	8	86	18	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Baraga Ave Westbound				McClellan Ave Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	5	8	0	0	0	0	0	1	18	0	0	0	0	0	0
6:15 AM	0	10	7	0	1	0	1	0	1	31	1	0	0	0	1	0
6:30 AM	0	16	2	0	1	0	0	0	0	42	0	0	0	0	0	0
6:45 AM	1	15	4	0	3	0	3	0	2	63	5	0	3	0	0	0
7:00 AM	1	26	3	0	6	1	0	0	1	107	2	0	0	0	0	0
7:15 AM	1	41	4	0	4	0	2	0	3	139	3	0	0	0	1	0
7:30 AM	5	32	22	0	4	0	5	0	6	129	7	0	0	0	3	0
7:45 AM	3	42	15	0	10	2	0	0	8	133	10	0	3	3	1	0
8:00 AM	7	36	12	0	9	2	4	0	3	89	3	0	5	2	6	0
8:15 AM	7	31	6	0	4	1	5	0	5	88	16	0	6	0	4	0
8:30 AM	7	38	11	0	11	2	5	0	5	111	7	0	7	2	7	0
8:45 AM	14	53	10	0	8	3	1	0	3	149	7	0	3	0	3	0
9:00 AM	17	50	12	0	6	2	5	0	6	96	9	0	13	2	7	0
9:15 AM	11	52	6	0	7	0	4	0	4	95	4	0	13	1	7	0
9:30 AM	16	49	14	0	11	2	4	0	2	89	14	0	10	2	4	0
9:45 AM	16	39	11	0	8	2	4	0	0	107	9	0	11	1	7	0
10:00 AM	14	51	8	0	9	3	2	0	2	76	6	0	12	4	8	0
10:15 AM	17	61	11	0	8	5	1	0	3	101	10	0	17	1	6	0
10:30 AM	20	38	14	0	6	3	5	0	3	74	13	0	13	6	13	0
10:45 AM	13	61	9	0	10	4	3	0	4	74	12	0	16	3	13	0
11:00 AM	25	61	14	0	11	2	3	0	2	78	10	0	25	2	18	0
11:15 AM	25	35	5	0	9	1	3	0	2	82	16	0	25	4	9	0
11:30 AM	22	62	18	0	10	3	4	0	3	83	20	0	18	8	10	0
11:45 AM	19	58	9	0	12	7	3	0	4	88	24	0	21	5	18	0
12:00 PM	16	78	14	0	27	5	4	0	3	101	19	0	28	1	12	0
12:15 PM	22	59	15	0	12	6	3	0	4	90	16	0	21	6	12	0
12:30 PM	21	61	13	0	18	2	7	0	2	83	17	0	17	6	13	0
12:45 PM	20	61	16	0	9	5	2	0	6	86	13	0	24	2	12	0
1:00 PM	20	63	11	0	16	5	2	0	4	75	14	0	26	8	7	0
1:15 PM	18	63	18	0	10	6	5	0	4	79	23	0	17	4	17	0
1:30 PM	16	64	10	0	12	1	2	0	3	83	16	0	23	3	13	0
1:45 PM	20	75	15	0	10	3	3	0	3	95	8	0	24	4	16	0
2:00 PM	12	65	11	0	10	2	4	0	3	75	12	0	19	2	12	0
2:15 PM	15	72	12	0	10	3	7	0	3	95	14	0	18	6	12	0
2:30 PM	18	107	18	0	17	2	5	0	5	84	9	0	23	2	13	0
2:45 PM	22	87	7	0	6	2	5	0	1	102	14	0	22	3	6	0
3:00 PM	16	93	10	0	16	1	8	0	2	100	15	0	21	2	16	0
3:15 PM	22	85	13	0	11	3	6	0	4	82	11	0	30	4	3	0
3:30 PM	16	100	10	0	16	3	4	0	2	81	6	0	22	3	14	0
3:45 PM	20	82	13	0	3	1	10	0	6	117	15	0	25	2	14	0
4:00 PM	23	109	19	0	15	1	5	0	3	112	14	0	25	2	12	0
4:15 PM	15	74	18	0	15	3	7	0	6	100	15	0	25	4	9	0
4:30 PM	22	100	15	0	16	3	5	0	1	89	11	0	39	3	8	0
4:45 PM	18	101	14	0	9	2	6	0	1	98	8	0	23	6	9	0
5:00 PM	19	132	14	0	17	4	6	0	3	103	6	0	22	1	8	0
5:15 PM	16	109	14	0	11	1	6	0	1	83	5	0	20	3	6	0
5:30 PM	12	97	9	0	7	1	3	0	1	74	8	0	25	1	7	0
5:45 PM	11	87	8	0	6	1	2	0	3	87	6	0	10	2	7	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Baraga Ave Westbound				McClellan Ave Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	1	0	0	0	0	0	0	2	0	0	0	0	1	0
7:45 AM	0	3	0	0	1	0	0	0	0	0	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0
8:30 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	1	0	0	2	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	1	1	0	0	1	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:30 AM	1	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0
9:45 AM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:00 AM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	1	0	0	0	0	2	1	0	0	0	0	0
10:30 AM	0	3	2	0	0	0	1	0	0	4	1	0	0	0	0	0
10:45 AM	0	3	0	0	1	0	0	0	0	2	0	0	0	0	0	0
11:00 AM	0	1	0	0	2	1	0	0	0	2	1	0	2	1	0	0
11:15 AM	0	3	1	0	0	0	2	0	0	2	1	0	1	0	0	0
11:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:15 PM	0	3	1	0	1	0	0	0	1	2	1	0	0	0	0	0
12:30 PM	0	3	0	0	1	0	0	0	0	3	1	0	0	0	0	0
12:45 PM	0	2	0	0	1	0	0	0	0	3	0	0	0	0	0	0
1:00 PM	0	3	1	0	0	0	0	0	0	3	0	0	0	0	0	0
1:15 PM	0	0	2	0	2	0	0	0	0	2	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	1	0	0	2	0	0	2	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0
3:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	1	0	0	0	0	3	1	0	0	0	0	0
3:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0
4:00 PM	1	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0
5:00 PM	1	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Baraga Ave Westbound				McClellan Ave Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	0	2	0	0	4	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0
9:15 AM	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0
9:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
1:15 PM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
1:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
4:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Baraga Ave Crossing East Leg	McClellan Ave Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	1	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	1	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	1	0
10:30 AM	0	0	0	0
10:45 AM	0	1	0	0
11:00 AM	0	0	0	0
11:15 AM	0	2	2	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	2	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	1	0	0	0
1:15 PM	0	2	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	1	0	0
2:15 PM	0	1	1	0
2:30 PM	0	1	0	1
2:45 PM	0	0	0	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	1	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	1	0	0	1
4:45 PM	1	0	0	1
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Baraga Ave Westbound				McClellan Ave Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	8	8	0	0	0	0	0	1	18	0	0	0	0	0	0
6:15 AM	0	10	7	0	1	0	1	0	1	32	1	0	0	0	1	0
6:30 AM	0	17	2	0	1	0	0	0	0	42	0	0	0	0	0	0
6:45 AM	1	16	6	0	3	0	5	0	2	63	5	0	3	0	0	0
7:00 AM	1	26	3	0	6	1	0	0	1	110	2	0	0	0	0	0
7:15 AM	1	42	4	0	4	0	3	0	3	142	3	0	0	0	1	0
7:30 AM	5	36	23	0	4	0	5	0	6	132	7	0	0	0	4	0
7:45 AM	3	45	15	0	11	2	0	0	8	133	11	0	3	3	1	0
8:00 AM	7	37	12	0	9	2	4	0	4	91	3	0	5	2	6	0
8:15 AM	7	32	6	0	4	1	5	0	5	89	17	0	7	0	4	0
8:30 AM	7	39	13	0	11	2	7	0	5	116	7	0	7	2	7	0
8:45 AM	14	54	10	0	10	3	1	0	3	151	7	0	3	0	3	0
9:00 AM	17	51	12	0	6	3	6	0	8	99	9	0	14	2	7	0
9:15 AM	11	52	6	0	9	0	4	0	4	95	6	0	13	1	7	0
9:30 AM	17	51	14	0	11	2	4	0	2	92	14	0	11	2	4	0
9:45 AM	16	43	11	0	8	2	4	0	0	110	9	0	11	1	7	0
10:00 AM	14	54	9	0	9	3	2	0	3	77	6	0	12	4	8	0
10:15 AM	17	64	11	0	9	5	1	0	3	103	11	0	17	1	6	0
10:30 AM	20	41	16	0	6	3	6	0	3	78	14	0	13	6	13	0
10:45 AM	13	64	9	0	11	4	3	0	4	78	12	0	16	3	13	0
11:00 AM	25	63	14	0	13	3	3	0	2	81	11	0	27	3	18	0
11:15 AM	25	38	6	0	9	1	5	0	2	84	17	0	26	4	9	0
11:30 AM	22	62	19	0	10	3	4	0	3	83	20	0	19	8	10	0
11:45 AM	19	59	9	0	12	7	3	0	5	91	24	0	21	5	18	0
12:00 PM	16	78	14	0	27	5	4	0	3	106	19	0	28	1	12	0
12:15 PM	22	63	17	0	13	6	3	0	5	93	17	0	21	6	12	0
12:30 PM	21	65	13	0	19	2	7	0	2	88	18	0	17	6	13	0
12:45 PM	20	64	16	0	10	5	2	0	6	90	13	0	25	2	12	0
1:00 PM	20	66	12	0	16	5	2	0	5	79	14	0	26	8	7	0
1:15 PM	18	63	21	0	12	6	6	0	4	82	24	0	17	4	17	0
1:30 PM	17	64	10	0	12	1	3	0	3	85	16	0	23	3	13	0
1:45 PM	20	75	15	0	10	3	4	0	3	97	8	0	26	4	16	0
2:00 PM	12	65	11	0	10	2	4	0	3	78	12	0	20	2	12	0
2:15 PM	15	72	12	0	10	3	7	0	4	95	16	0	18	6	12	0
2:30 PM	18	111	18	0	17	2	5	0	5	85	10	0	24	2	13	0
2:45 PM	22	88	7	0	6	2	5	0	3	105	14	0	22	3	6	0
3:00 PM	16	93	11	0	16	1	8	0	2	101	15	0	21	2	17	0
3:15 PM	22	85	14	0	12	3	7	0	4	85	12	0	30	4	3	0
3:30 PM	16	103	10	0	16	3	4	0	2	82	6	0	22	3	14	0
3:45 PM	20	82	14	0	3	1	10	0	6	120	16	0	25	2	14	0
4:00 PM	24	112	20	0	15	1	5	0	3	112	14	0	26	2	13	0
4:15 PM	15	75	18	0	15	3	7	0	6	105	16	0	25	4	9	0
4:30 PM	22	100	15	0	16	3	5	0	1	93	11	0	39	3	8	0
4:45 PM	18	101	14	0	9	2	7	0	2	101	8	0	24	7	9	0
5:00 PM	20	132	15	0	17	4	6	0	3	108	6	0	22	1	8	0
5:15 PM	16	110	14	0	11	1	6	0	1	84	5	0	20	3	6	0
5:30 PM	12	97	9	0	7	1	3	0	1	75	9	0	25	1	7	0
5:45 PM	11	89	8	0	6	1	2	0	3	88	6	0	11	2	7	0

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				US 41 Westbound				McClellan Ave Northbound				US 41 Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	5	0	0	7	51	0	15	15	18	0	0	4	18	0	1
6:15 AM	2	9	0	0	12	58	0	14	17	23	0	0	9	13	0	4
6:30 AM	4	14	0	0	26	71	0	11	12	29	0	0	7	34	0	5
6:45 AM	9	18	0	0	27	55	0	20	19	35	0	0	18	45	0	7
7:00 AM	8	25	0	0	55	88	0	15	16	86	0	0	22	52	0	13
7:15 AM	7	31	0	0	51	99	0	21	24	83	0	0	19	81	0	12
7:30 AM	9	36	0	0	68	144	0	31	43	105	0	0	28	109	0	9
7:45 AM	19	20	0	0	48	142	0	34	35	96	0	0	20	161	0	24
8:00 AM	13	31	0	0	39	107	0	24	25	44	0	0	28	69	0	9
8:15 AM	17	24	0	0	43	117	0	26	31	71	0	0	36	77	0	7
8:30 AM	15	36	0	0	50	120	0	16	21	90	0	0	34	88	0	14
8:45 AM	14	51	0	0	47	126	0	33	39	102	0	0	25	81	0	14
9:00 AM	19	41	0	0	43	112	0	21	31	59	0	0	31	67	0	18
9:15 AM	26	40	0	0	39	102	0	15	18	55	0	0	26	61	0	21
9:30 AM	23	37	0	0	65	108	0	27	35	53	0	0	29	97	0	18
9:45 AM	19	46	0	0	40	123	0	32	39	71	0	0	37	100	0	16
10:00 AM	24	44	0	0	37	118	0	29	38	59	0	0	29	92	0	23
10:15 AM	23	40	0	0	36	111	0	12	22	59	0	0	29	91	0	20
10:30 AM	30	38	0	0	35	128	0	20	29	51	0	0	44	93	0	21
10:45 AM	34	48	0	0	30	97	0	20	30	65	0	0	41	79	0	21
11:00 AM	20	53	0	0	37	98	0	16	27	52	0	0	42	98	0	16
11:15 AM	24	49	0	0	40	141	0	28	45	49	0	0	42	93	0	22
11:30 AM	26	39	0	0	44	131	0	25	44	71	0	0	53	100	0	25
11:45 AM	48	65	0	0	48	143	0	29	40	74	0	0	44	110	0	34
12:00 PM	33	61	0	0	43	136	0	32	47	66	0	0	49	119	0	22
12:15 PM	31	46	0	0	34	117	0	19	34	67	0	0	45	133	0	27
12:30 PM	27	47	0	0	37	117	0	28	39	67	0	0	37	135	0	26
12:45 PM	27	69	0	0	50	120	0	35	40	59	0	0	53	117	0	29
1:00 PM	34	54	0	0	52	141	0	22	38	45	0	0	50	127	0	27
1:15 PM	36	41	0	0	36	141	0	27	44	56	1	0	57	136	0	37
1:30 PM	31	67	0	0	40	118	0	18	36	72	0	0	54	137	0	34
1:45 PM	32	63	0	0	31	128	0	22	35	68	0	0	48	123	0	25
2:00 PM	34	56	0	0	41	144	0	44	60	55	0	0	57	136	0	32
2:15 PM	33	80	0	0	36	130	0	26	37	70	0	0	57	126	0	18
2:30 PM	39	88	0	0	39	152	0	24	41	67	0	0	68	143	0	36
2:45 PM	37	80	0	0	46	137	0	25	42	77	0	0	72	139	0	40
3:00 PM	46	78	0	0	30	140	0	25	46	66	0	0	65	155	0	36
3:15 PM	33	86	0	0	31	140	0	24	42	65	0	0	70	135	0	33
3:30 PM	35	91	0	0	39	161	0	25	50	58	0	0	83	150	0	33
3:45 PM	50	83	0	0	44	153	0	31	53	107	0	0	58	144	0	40
4:00 PM	36	97	0	0	46	155	0	30	44	70	0	0	79	180	0	38
4:15 PM	38	73	0	0	41	140	0	31	45	75	0	0	66	174	0	33
4:30 PM	62	81	0	0	41	184	0	35	52	54	0	0	81	201	0	45
4:45 PM	54	88	0	0	34	181	0	21	42	78	0	0	66	188	0	45
5:00 PM	49	98	0	0	25	190	0	23	42	61	0	0	84	206	0	49
5:15 PM	46	92	0	0	19	144	0	30	47	56	0	0	87	181	0	46
5:30 PM	36	86	0	0	24	137	0	30	53	76	0	0	63	149	0	37
5:45 PM	30	63	0	0	22	138	0	27	42	60	0	0	55	139	0	31

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				US 41 Westbound				McClellan Ave Northbound				US 41 Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 AM	0	1	0	0	0	4	0	0	0	1	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	1	0	0	1	0	0	0	1	2	0	0
6:45 AM	0	0	0	0	0	2	0	0	1	0	0	0	1	1	0	0
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0
7:15 AM	1	2	0	0	0	1	0	1	1	1	0	0	1	2	0	1
7:30 AM	1	2	0	0	0	1	0	0	1	3	0	0	1	3	0	1
7:45 AM	1	0	0	0	0	0	0	0	1	1	0	0	1	5	0	2
8:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	2	2	0	0
8:15 AM	0	1	0	0	1	2	0	2	0	1	0	0	0	1	0	0
8:30 AM	0	2	0	0	0	3	0	0	0	2	0	0	2	1	0	2
8:45 AM	0	1	0	0	1	1	0	1	1	1	0	0	0	1	0	0
9:00 AM	2	0	0	0	0	6	0	0	0	1	0	0	3	0	0	1
9:15 AM	0	0	0	0	2	2	0	0	0	2	0	0	2	5	0	1
9:30 AM	0	2	0	0	2	2	0	0	0	2	0	0	4	3	0	0
9:45 AM	1	2	0	0	0	4	0	1	1	0	0	0	2	1	0	0
10:00 AM	1	1	0	0	1	4	0	1	1	1	0	0	3	3	0	1
10:15 AM	0	2	0	0	1	5	0	2	3	2	0	0	3	2	0	0
10:30 AM	3	1	0	0	1	1	0	3	2	4	0	0	0	11	0	2
10:45 AM	0	1	0	0	0	2	0	0	1	3	0	0	2	1	0	0
11:00 AM	3	4	0	0	0	1	0	1	1	1	0	0	0	1	0	1
11:15 AM	1	1	0	0	0	1	0	0	0	2	0	0	0	3	0	1
11:30 AM	1	0	0	0	2	5	0	1	1	1	0	0	1	2	0	0
11:45 AM	0	1	0	0	2	3	0	1	0	1	0	0	0	1	0	0
12:00 PM	0	1	0	0	1	2	0	0	0	2	0	0	0	2	0	0
12:15 PM	0	1	0	0	1	2	0	0	0	2	0	0	1	3	0	0
12:30 PM	0	2	0	0	1	2	0	1	1	4	0	0	1	1	0	0
12:45 PM	0	3	0	0	1	3	0	0	1	0	0	0	1	2	0	0
1:00 PM	0	3	0	0	1	1	0	0	0	4	0	0	0	1	0	0
1:15 PM	0	0	0	0	3	3	0	0	1	1	0	0	0	2	0	0
1:30 PM	2	0	0	0	0	3	0	0	0	1	0	0	1	3	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	5	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	1	0	0
2:15 PM	2	0	0	0	0	1	0	0	0	3	0	0	0	2	0	0
2:30 PM	0	1	0	0	0	3	0	1	2	2	0	0	1	3	0	1
2:45 PM	0	0	0	0	3	5	0	2	0	1	0	0	0	4	0	0
3:00 PM	0	1	0	0	0	3	0	2	2	1	0	0	0	2	0	0
3:15 PM	0	2	0	0	1	5	0	0	0	2	0	0	0	2	0	0
3:30 PM	0	0	0	0	0	5	0	0	0	1	0	0	4	2	0	1
3:45 PM	0	2	0	0	2	5	0	0	0	1	0	0	2	3	0	1
4:00 PM	0	3	0	0	0	2	0	0	0	1	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	2	0	1	2	3	0	0	1	1	0	1
4:30 PM	0	0	0	0	0	5	0	1	1	3	0	0	1	2	0	0
4:45 PM	0	1	0	0	0	2	0	2	1	1	0	0	1	0	0	0
5:00 PM	2	0	0	0	0	2	0	0	0	1	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	1	0	1	1	1	0	0	1	2	0	0
5:30 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				US 41 Westbound				McClellan Ave Northbound				US 41 Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	3	0	1	1	0	0	0	1	1	0	0
6:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	0	0	1	1	0	1	0	0	0	0	1	2	0	0
7:00 AM	0	0	0	0	0	4	0	0	0	2	0	0	1	2	0	2
7:15 AM	0	1	0	0	0	4	0	1	2	3	0	0	1	2	0	0
7:30 AM	0	2	0	0	0	4	0	1	2	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	5	0	1	5	1	0	0	0	6	0	0
8:00 AM	1	0	0	0	0	7	0	1	2	2	0	0	0	2	0	1
8:15 AM	0	1	0	0	2	1	0	0	0	0	0	0	0	1	0	0
8:30 AM	1	0	0	0	1	0	0	0	0	1	0	0	2	4	0	0
8:45 AM	0	0	0	0	1	3	0	0	2	2	0	0	0	3	0	0
9:00 AM	0	0	0	0	0	2	0	0	1	1	0	0	1	4	0	0
9:15 AM	0	0	0	0	1	5	0	0	1	0	0	0	1	4	0	0
9:30 AM	1	1	0	0	0	6	0	0	3	1	0	0	1	2	0	2
9:45 AM	0	0	0	0	0	6	0	0	1	0	0	0	0	3	0	0
10:00 AM	1	0	0	0	0	2	0	0	0	1	0	0	0	4	0	1
10:15 AM	2	0	0	0	0	2	0	0	1	0	0	0	0	7	0	2
10:30 AM	0	0	0	0	1	4	0	0	1	1	0	0	1	5	0	0
10:45 AM	0	1	0	0	0	7	0	0	3	0	0	0	2	2	0	0
11:00 AM	0	0	0	0	1	2	0	0	4	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	1	7	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
11:45 AM	0	0	0	0	1	4	0	0	0	0	0	0	1	2	0	1
12:00 PM	1	1	0	0	0	2	0	0	1	2	0	0	0	1	0	1
12:15 PM	1	0	0	0	1	6	0	0	0	0	0	0	0	5	0	0
12:30 PM	1	0	0	0	0	2	0	0	1	1	0	0	1	4	0	2
12:45 PM	1	0	0	0	1	1	0	0	1	1	0	0	2	3	0	2
1:00 PM	0	1	0	0	1	3	0	0	1	1	0	0	1	1	0	0
1:15 PM	1	0	0	0	0	5	0	0	2	0	0	0	1	3	0	1
1:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0
1:45 PM	0	0	0	0	0	2	0	0	3	0	0	0	0	2	0	0
2:00 PM	0	0	0	0	0	6	0	0	1	0	0	0	2	1	0	0
2:15 PM	0	1	0	0	1	1	0	0	1	0	0	0	0	2	0	0
2:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	2	4	0	0
2:45 PM	0	0	0	0	0	5	0	0	4	1	0	0	0	6	0	0
3:00 PM	0	0	0	0	1	6	0	0	0	0	0	0	1	2	0	1
3:15 PM	0	0	0	0	0	4	0	0	2	0	0	0	1	8	0	0
3:30 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	1	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0	0
4:00 PM	0	0	0	0	2	2	0	0	1	0	0	0	3	4	0	0
4:15 PM	0	0	0	0	2	8	0	1	0	0	0	0	0	6	0	0
4:30 PM	1	0	0	0	0	2	0	0	2	1	0	0	0	2	0	0
4:45 PM	0	0	0	0	1	5	0	0	3	3	0	0	0	3	0	0
5:00 PM	0	0	0	0	1	7	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	1	1	0	0	1	1	0	1
5:45 PM	1	0	0	0	0	3	0	0	1	1	0	0	1	1	0	0

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	US 41 Crossing East Leg	McClellan Ave Crossing South Leg	US 41 Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	1
6:45 AM	0	0	0	0
7:00 AM	0	1	0	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	1
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	1	0	1
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	1
2:15 PM	0	0	0	0
2:30 PM	0	0	0	2
2:45 PM	0	0	0	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	1
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	1
4:30 PM	0	0	0	2
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				US 41 Westbound				McClellan Ave Northbound				US 41 Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	6	0	0	7	58	0	15	15	18	0	0	4	19	0	1
6:15 AM	2	10	0	0	12	65	0	15	18	24	0	0	10	14	0	4
6:30 AM	5	14	0	0	26	75	0	11	13	29	0	0	8	36	0	5
6:45 AM	9	20	0	0	28	58	0	21	20	35	0	0	20	48	0	7
7:00 AM	8	25	0	0	55	93	0	15	16	88	0	0	25	54	0	15
7:15 AM	8	34	0	0	51	104	0	23	27	87	0	0	21	85	0	13
7:30 AM	10	40	0	0	68	149	0	32	46	108	0	0	29	113	0	10
7:45 AM	20	20	0	0	48	147	0	35	41	98	0	0	21	172	0	26
8:00 AM	15	31	0	0	40	115	0	25	27	47	0	0	30	73	0	10
8:15 AM	17	26	0	0	46	120	0	28	31	72	0	0	36	79	0	7
8:30 AM	16	38	0	0	51	123	0	16	21	93	0	0	38	93	0	16
8:45 AM	14	52	0	0	49	130	0	34	42	105	0	0	25	85	0	14
9:00 AM	21	41	0	0	43	120	0	21	32	61	0	0	35	71	0	19
9:15 AM	26	40	0	0	42	109	0	15	19	57	0	0	29	70	0	22
9:30 AM	24	40	0	0	67	116	0	27	38	56	0	0	34	102	0	20
9:45 AM	20	48	0	0	40	133	0	33	41	71	0	0	39	104	0	16
10:00 AM	26	45	0	0	38	124	0	30	39	61	0	0	32	99	0	25
10:15 AM	25	42	0	0	37	118	0	14	26	61	0	0	32	100	0	22
10:30 AM	33	39	0	0	37	133	0	23	32	56	0	0	45	109	0	23
10:45 AM	34	50	0	0	30	106	0	20	34	68	0	0	45	82	0	21
11:00 AM	23	57	0	0	38	101	0	17	32	53	0	0	42	100	0	17
11:15 AM	25	50	0	0	41	149	0	28	45	51	0	0	42	97	0	23
11:30 AM	27	39	0	0	46	137	0	26	45	72	0	0	54	105	0	25
11:45 AM	48	66	0	0	51	150	0	30	40	75	0	0	45	113	0	35
12:00 PM	34	63	0	0	44	140	0	32	48	70	0	0	49	122	0	23
12:15 PM	32	47	0	0	36	125	0	19	34	69	0	0	46	141	0	27
12:30 PM	28	49	0	0	38	121	0	29	41	72	0	0	39	140	0	28
12:45 PM	28	72	0	0	52	124	0	35	42	60	0	0	56	122	0	31
1:00 PM	34	58	0	0	54	145	0	22	39	50	0	0	51	129	0	27
1:15 PM	37	41	0	0	39	149	0	27	47	57	1	0	58	141	0	38
1:30 PM	33	67	0	0	40	125	0	18	36	73	0	0	55	142	0	35
1:45 PM	32	63	0	0	31	130	0	22	38	70	0	0	49	130	0	25
2:00 PM	34	57	0	0	41	150	0	44	61	58	0	0	59	138	0	32
2:15 PM	35	81	0	0	37	132	0	26	38	73	0	0	57	130	0	18
2:30 PM	39	91	0	0	39	157	0	25	43	69	0	0	71	150	0	37
2:45 PM	37	80	0	0	49	147	0	27	46	79	0	0	72	149	0	40
3:00 PM	46	79	0	0	31	149	0	27	48	67	0	0	66	159	0	37
3:15 PM	33	88	0	0	32	149	0	24	44	67	0	0	71	145	0	33
3:30 PM	35	92	0	0	39	170	0	25	50	59	0	0	87	153	0	34
3:45 PM	50	85	0	0	46	158	0	31	54	108	0	0	60	150	0	41
4:00 PM	36	100	0	0	48	159	0	30	45	71	0	0	82	185	0	38
4:15 PM	38	73	0	0	43	150	0	33	47	78	0	0	67	181	0	34
4:30 PM	63	81	0	0	41	191	0	36	55	58	0	0	82	205	0	45
4:45 PM	54	89	0	0	35	188	0	23	46	82	0	0	67	191	0	45
5:00 PM	51	98	0	0	26	199	0	23	42	64	0	0	84	207	0	50
5:15 PM	46	92	0	0	19	149	0	31	48	57	0	0	88	183	0	46
5:30 PM	36	88	0	0	24	140	0	30	54	77	0	0	64	151	0	38
5:45 PM	31	63	0	0	22	141	0	27	44	62	0	0	56	141	0	31

Study Name **Location 66 McClellan Ave & Odovero Dr/Parking Lot**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Parking Lot Westbound				McClellan Ave Northbound				Odovero Dr Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	6	0	0	0	0	0	0	0	27	2	0	0	0	6	0
6:15 AM	8	9	0	0	1	0	0	0	0	31	4	0	1	0	3	0
6:30 AM	3	14	0	0	1	0	0	0	0	39	4	0	1	1	2	0
6:45 AM	14	20	0	0	2	0	0	0	0	55	2	0	0	0	3	0
7:00 AM	9	30	0	0	0	1	0	0	0	92	2	0	3	0	3	0
7:15 AM	14	41	1	0	1	0	1	0	0	103	6	0	7	0	6	0
7:30 AM	15	39	0	0	0	0	0	0	0	123	8	0	6	0	14	0
7:45 AM	16	34	1	0	2	0	0	0	0	119	5	0	3	0	15	0
8:00 AM	12	38	1	0	0	0	0	0	0	65	4	0	3	0	7	0
8:15 AM	10	50	1	0	1	0	0	0	0	82	6	0	5	0	14	0
8:30 AM	16	50	2	0	1	0	0	0	0	92	10	0	2	0	16	0
8:45 AM	19	52	0	0	1	0	0	0	0	132	9	0	2	0	10	0
9:00 AM	25	54	0	0	0	0	0	0	0	76	5	0	5	0	16	0
9:15 AM	37	28	0	0	0	0	0	0	0	52	1	0	9	0	22	0
9:30 AM	22	45	1	0	2	0	0	0	0	68	7	0	10	0	13	0
9:45 AM	41	33	0	0	0	0	0	0	0	86	5	0	4	0	24	0
10:00 AM	36	36	1	0	0	0	0	0	0	65	4	0	5	0	30	0
10:15 AM	24	53	1	0	2	0	0	0	0	59	13	0	7	0	33	0
10:30 AM	38	37	0	0	0	0	0	0	0	51	9	0	8	0	19	0
10:45 AM	40	46	1	0	1	0	0	0	0	60	5	0	14	0	30	0
11:00 AM	40	56	0	0	1	0	0	0	0	58	10	0	14	0	28	0
11:15 AM	46	40	0	0	0	0	0	0	0	51	6	0	8	0	40	0
11:30 AM	49	49	0	0	0	0	0	0	0	62	3	0	9	0	51	0
11:45 AM	43	50	0	0	0	0	0	0	0	71	11	0	11	0	34	0
12:00 PM	45	74	1	0	0	0	0	0	0	75	11	0	10	0	45	0
12:15 PM	37	55	2	0	3	0	0	0	1	56	7	0	8	0	42	0
12:30 PM	38	48	1	0	2	1	0	0	0	65	6	0	16	0	38	0
12:45 PM	32	72	2	0	2	0	0	0	0	69	5	0	18	0	24	0
1:00 PM	35	73	1	1	0	0	0	0	0	60	6	0	9	0	27	0
1:15 PM	43	59	1	0	2	0	0	0	0	71	5	0	15	0	30	0
1:30 PM	51	59	0	0	0	0	0	0	0	67	8	0	19	0	33	0
1:45 PM	42	73	0	0	0	0	0	0	0	65	11	0	16	0	40	0
2:00 PM	56	57	0	0	0	0	0	0	0	67	9	0	11	0	43	0
2:15 PM	47	78	2	0	2	0	0	0	0	65	3	0	23	0	40	0
2:30 PM	59	97	2	0	0	0	0	0	0	70	6	0	10	0	43	0
2:45 PM	61	87	1	0	3	0	0	0	0	73	11	0	24	0	40	0
3:00 PM	49	96	0	0	0	0	0	0	0	69	8	0	19	0	41	0
3:15 PM	55	101	2	0	2	0	0	0	0	71	16	0	11	0	37	0
3:30 PM	46	115	2	0	2	0	0	0	0	51	10	0	13	0	55	0
3:45 PM	46	91	0	0	0	0	0	0	0	107	11	0	19	0	45	0
4:00 PM	80	101	0	0	1	0	0	0	0	80	10	0	11	0	38	0
4:15 PM	44	88	0	0	0	0	0	0	0	71	14	0	21	1	53	0
4:30 PM	53	117	1	0	1	0	0	0	0	65	13	0	30	0	35	0
4:45 PM	45	89	0	0	1	0	0	0	0	82	10	0	26	0	32	0
5:00 PM	55	138	0	0	0	0	0	0	0	70	12	0	21	0	38	0
5:15 PM	59	113	1	0	0	0	0	0	0	77	5	0	23	0	33	0
5:30 PM	56	108	0	0	0	0	0	0	0	82	12	0	18	0	37	0
5:45 PM	37	76	1	0	0	0	0	0	0	67	6	0	20	0	37	0

Study Name **Location 66 McClellan Ave & Odovero Dr/Parking Lot**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Parking Lot Westbound				McClellan Ave Northbound				Odovero Dr Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
7:45 AM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	2	0
8:00 AM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	1	0
8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
8:30 AM	1	2	0	0	0	0	0	0	0	1	0	0	1	0	1	0
8:45 AM	1	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0
9:00 AM	2	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
9:15 AM	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:30 AM	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
9:45 AM	1	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:15 AM	1	4	0	0	0	0	0	0	0	2	1	0	0	0	3	0
10:30 AM	0	1	0	0	0	0	0	0	0	5	0	0	0	0	2	0
10:45 AM	1	3	0	0	0	0	0	0	0	3	0	0	0	0	1	0
11:00 AM	1	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0
11:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	1	0	1	0	2	0
11:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
12:15 PM	0	4	0	0	0	0	0	0	0	1	0	0	0	0	1	0
12:30 PM	1	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
12:45 PM	1	3	0	0	0	0	0	0	0	1	0	0	1	0	3	0
1:00 PM	1	2	0	0	0	0	0	0	0	3	1	0	0	0	1	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
1:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:45 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:00 PM	1	1	0	0	0	0	0	0	0	0	1	0	0	0	3	0
2:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
2:30 PM	0	1	0	0	0	0	0	0	0	2	1	0	1	0	1	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0
3:15 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
3:30 PM	0	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:00 PM	1	3	0	0	0	0	0	0	0	1	0	0	1	0	0	0
4:15 PM	1	2	0	0	0	0	0	0	0	3	2	0	1	0	2	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	1	0	2	0
4:45 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:45 PM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0

Study Name **Location 66 McClellan Ave & Odovero Dr/Parking Lot**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Parking Lot Westbound				McClellan Ave Northbound				Odovero Dr Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:45 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	1	0
7:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	1	1	0	0	0	0	0	0	0	3	0	0	0	0	2	0
7:30 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:15 AM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	1	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0
11:00 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0
1:15 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
2:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
3:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:30 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0

Study Name **Location 66 McClellan Ave & Odovero Dr/Parking L**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Parking Lot Crossing East Leg	McClellan Ave Crossing South Leg	Odovero Dr Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	1
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	1	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	1	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	1	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	1	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	1
4:30 PM	0	0	0	0
4:45 PM	0	0	1	0
5:00 PM	0	0	0	0
5:15 PM	0	1	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 66 McClellan Ave & Odovero Dr/Parking Lot**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Parking Lot Westbound				McClellan Ave Northbound				Odovero Dr Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	9	0	0	0	0	0	0	0	27	2	0	0	0	6	0
6:15 AM	8	10	0	0	2	0	0	0	0	32	4	0	1	0	3	0
6:30 AM	3	16	0	0	1	0	0	0	0	39	4	0	1	1	3	0
6:45 AM	14	23	0	0	2	1	0	0	0	55	2	0	0	0	4	0
7:00 AM	10	33	0	0	0	1	0	0	0	93	2	0	3	0	3	0
7:15 AM	17	43	1	0	1	0	1	0	0	106	6	0	7	0	9	0
7:30 AM	16	41	0	0	0	0	0	0	0	128	8	0	6	0	15	0
7:45 AM	16	36	1	0	2	0	0	0	0	126	6	0	3	0	17	0
8:00 AM	12	40	1	0	0	0	0	0	0	69	5	0	3	0	8	0
8:15 AM	11	50	1	0	1	0	0	0	0	82	6	0	5	0	17	0
8:30 AM	17	54	2	0	1	0	0	0	0	94	11	0	3	0	17	0
8:45 AM	20	53	0	0	1	0	0	0	0	137	9	0	3	0	10	0
9:00 AM	27	55	0	0	0	0	0	0	0	80	5	0	5	0	17	0
9:15 AM	40	30	0	0	0	0	0	0	0	53	1	0	9	0	23	0
9:30 AM	26	47	1	0	2	0	0	0	0	71	7	0	10	0	15	0
9:45 AM	42	38	0	0	0	0	0	0	0	87	5	0	5	0	26	0
10:00 AM	36	39	1	0	0	0	0	0	0	66	4	0	5	0	31	0
10:15 AM	25	57	1	0	2	0	0	0	0	62	14	0	7	0	36	0
10:30 AM	38	39	0	0	0	0	0	0	0	58	9	0	8	0	21	0
10:45 AM	41	50	1	0	1	0	0	0	0	65	5	0	14	0	32	0
11:00 AM	41	58	0	0	1	0	0	0	0	63	11	0	14	0	29	0
11:15 AM	46	43	0	0	0	0	0	0	0	51	6	0	8	0	42	0
11:30 AM	49	50	0	0	0	0	0	0	0	62	4	0	10	0	53	0
11:45 AM	44	51	0	0	0	0	0	0	0	72	11	0	11	0	35	0
12:00 PM	45	74	1	0	0	0	0	0	0	78	11	0	10	0	46	0
12:15 PM	37	59	2	0	3	0	0	0	1	58	7	0	8	0	43	0
12:30 PM	40	50	1	0	2	1	0	0	0	69	6	0	16	0	39	0
12:45 PM	33	77	2	0	2	0	0	0	0	71	5	0	19	0	27	0
1:00 PM	36	76	1	1	0	0	0	0	0	65	7	0	9	0	29	0
1:15 PM	43	61	1	0	2	0	0	0	0	73	5	0	15	0	32	0
1:30 PM	52	59	0	0	0	0	0	0	0	67	8	0	19	0	34	0
1:45 PM	42	74	0	0	0	0	0	0	0	69	11	0	16	0	40	0
2:00 PM	57	59	0	0	0	0	0	0	0	68	10	0	11	0	47	0
2:15 PM	47	80	2	0	2	0	0	0	0	68	3	0	23	0	41	0
2:30 PM	59	102	2	0	0	0	0	0	0	72	7	0	11	0	44	0
2:45 PM	61	88	1	0	3	0	0	0	0	79	11	0	24	0	40	0
3:00 PM	50	96	0	0	0	0	0	0	0	70	8	0	19	0	43	0
3:15 PM	56	103	2	0	2	0	0	0	0	74	16	0	11	0	38	0
3:30 PM	46	121	2	0	2	0	0	0	0	52	10	0	13	0	55	0
3:45 PM	46	93	0	0	0	0	0	0	0	108	11	0	19	0	46	0
4:00 PM	82	105	0	0	1	0	0	0	0	82	10	0	12	0	38	0
4:15 PM	45	90	0	0	0	0	0	0	0	74	16	0	22	1	55	0
4:30 PM	53	117	1	0	1	0	0	0	0	69	14	0	31	0	37	0
4:45 PM	45	92	0	0	1	0	0	0	0	90	10	0	26	0	33	0
5:00 PM	55	138	0	0	0	0	0	0	0	71	12	0	21	0	39	0
5:15 PM	59	115	1	0	0	0	0	0	0	79	5	0	23	0	33	0
5:30 PM	57	109	0	0	0	0	0	0	0	83	12	0	18	0	38	0
5:45 PM	38	78	1	0	0	0	0	0	0	71	6	0	20	0	38	0

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Grove St Westbound				McClellan Ave Northbound				Grove St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	5	0	0	0	2	0	0	6	25	1	0	1	3	3	0
6:15 AM	1	10	1	0	2	0	3	0	7	33	0	0	3	7	3	0
6:30 AM	0	13	0	0	1	5	2	0	17	36	0	0	3	10	1	0
6:45 AM	1	11	0	0	2	4	3	0	8	42	1	0	0	17	5	0
7:00 AM	2	26	0	0	4	3	6	0	13	76	3	0	4	11	16	0
7:15 AM	2	40	1	0	4	7	8	0	14	82	3	0	5	17	11	0
7:30 AM	4	31	3	0	4	4	3	0	20	115	10	0	15	21	14	0
7:45 AM	3	23	1	0	9	7	6	0	16	101	8	0	12	27	15	0
8:00 AM	2	26	0	0	6	5	5	0	8	55	5	0	2	13	7	0
8:15 AM	5	33	3	0	4	3	8	0	7	71	5	0	4	16	11	0
8:30 AM	3	40	2	0	4	3	7	0	19	81	4	0	11	9	8	0
8:45 AM	2	43	3	0	4	12	14	0	33	96	15	0	20	8	15	0
9:00 AM	8	37	4	0	2	3	5	0	6	65	8	0	4	15	8	0
9:15 AM	6	30	4	0	5	7	3	0	10	48	2	0	2	9	4	0
9:30 AM	4	40	2	0	5	4	1	0	11	55	4	0	1	12	9	0
9:45 AM	6	30	2	0	3	7	5	0	9	67	3	0	2	16	6	0
10:00 AM	7	30	3	0	3	5	6	0	8	56	5	0	0	7	2	0
10:15 AM	6	43	3	0	1	2	4	0	8	47	1	0	2	5	5	0
10:30 AM	4	30	6	0	4	4	4	0	9	49	1	0	3	9	5	0
10:45 AM	6	52	6	0	0	5	3	0	11	50	4	0	0	9	3	0
11:00 AM	9	49	3	0	5	6	5	0	5	43	0	0	6	5	5	0
11:15 AM	2	41	3	0	5	3	4	0	6	43	5	0	1	8	4	0
11:30 AM	7	38	5	0	5	9	5	0	7	49	2	0	1	12	2	0
11:45 AM	6	41	6	0	6	5	4	0	6	54	2	0	1	15	7	0
12:00 PM	16	59	8	0	5	15	3	0	4	55	1	0	3	4	5	0
12:15 PM	7	50	4	0	5	12	5	0	9	42	2	0	5	14	5	0
12:30 PM	5	45	5	0	6	8	8	0	7	48	6	0	9	14	4	0
12:45 PM	11	54	4	0	7	10	4	0	4	51	4	0	3	17	12	0
1:00 PM	13	56	7	0	7	13	6	0	2	44	5	0	2	11	6	0
1:15 PM	6	44	0	0	5	8	5	0	5	51	6	0	3	8	5	0
1:30 PM	5	53	7	0	3	11	6	0	3	58	2	0	5	11	5	0
1:45 PM	8	55	8	0	4	9	6	0	5	44	1	0	4	7	10	0
2:00 PM	3	61	7	0	4	11	10	0	2	55	5	0	3	7	1	0
2:15 PM	7	74	9	0	9	8	11	0	6	45	3	0	5	9	9	0
2:30 PM	11	90	3	0	3	9	13	0	12	52	5	0	5	8	11	0
2:45 PM	4	83	8	0	6	14	15	0	7	63	8	0	8	12	5	0
3:00 PM	4	90	10	0	6	15	8	0	3	49	3	0	3	14	6	0
3:15 PM	8	78	3	0	3	9	13	0	6	68	6	0	3	9	7	0
3:30 PM	11	117	4	0	2	12	27	0	10	38	4	0	9	9	3	0
3:45 PM	7	84	6	0	5	11	22	0	21	98	19	0	8	10	6	0
4:00 PM	10	86	14	0	8	16	16	0	16	61	11	0	1	9	7	0
4:15 PM	8	90	11	0	9	24	11	0	7	53	7	0	13	12	4	0
4:30 PM	14	124	9	0	4	19	10	0	7	62	9	0	6	13	4	0
4:45 PM	11	90	9	0	9	15	18	0	8	64	10	0	5	10	9	0
5:00 PM	18	130	8	0	1	27	11	0	12	51	9	0	6	14	7	0
5:15 PM	18	109	8	0	1	17	23	0	12	49	6	0	2	16	16	0
5:30 PM	11	110	10	0	7	14	16	0	8	63	4	0	4	12	10	0
5:45 PM	8	76	10	0	2	16	4	0	8	55	5	0	4	15	4	0

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Grove St Westbound				McClellan Ave Northbound				Grove St Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	1	2	0	0	0	0	1	0	0	3	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	
8:30 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
9:00 AM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
10:15 AM	0	4	0	0	1	0	1	0	0	1	0	0	0	0	0	0	
10:30 AM	0	1	0	0	0	0	1	0	2	5	0	0	0	0	0	0	
10:45 AM	0	4	0	0	0	0	0	0	2	2	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	3	0	1	2	0	0	0	0	0	0	
11:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	1	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	
12:15 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0	COUNT 007 VEDIO
12:30 PM	0	2	0	0	1	1	0	0	1	3	0	0	1	0	1	0	
12:45 PM	0	3	0	0	0	0	2	0	1	1	1	0	0	0	1	0	
1:00 PM	0	2	0	0	0	0	0	0	0	4	1	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	count 008
1:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	
1:45 PM	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0	
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	
2:30 PM	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0	
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	3	1	0	0	0	0	0	1	1	0	0	0	0	0	0	
3:45 PM	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	
4:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	1	2	0	0	0	0	0	0	0	2	0	0	0	1	0	0	
4:30 PM	1	2	0	0	2	0	0	0	0	1	0	0	0	0	1	0	
4:45 PM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Grove St Westbound				McClellan Ave Northbound				Grove St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	4	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:00 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	1	0	0	2	0	0	1	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0
4:00 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Grove St Crossing East Leg	McClellan Ave Crossing South Leg	Grove St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	1	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	2	0	0
9:00 AM	0	1	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	1
10:30 AM	0	0	1	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	1	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	1	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	1	0	0	1
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0

Location 67.xls

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Grove St Westbound				McClellan Ave Northbound				Grove St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	4	7	0	0	0	2	0	0	6	25	1	0	1	3	3	0
6:15 AM	1	11	1	0	2	0	3	0	7	34	0	0	3	7	3	0
6:30 AM	0	15	0	0	1	5	2	0	17	36	0	0	3	10	1	0
6:45 AM	1	14	0	0	2	4	3	0	8	42	1	0	0	18	5	0
7:00 AM	2	28	1	0	4	3	6	0	13	77	3	0	4	11	16	0
7:15 AM	2	42	1	0	4	8	8	0	14	87	3	0	5	18	11	0
7:30 AM	4	33	3	0	4	4	3	0	20	120	10	0	15	21	14	0
7:45 AM	3	25	1	0	9	7	6	0	16	107	9	0	12	27	15	0
8:00 AM	3	28	0	0	6	5	6	0	8	61	5	0	2	13	7	0
8:15 AM	5	33	3	0	4	4	8	0	7	72	6	0	4	16	12	0
8:30 AM	3	45	2	0	4	3	7	0	19	82	4	0	11	10	8	0
8:45 AM	2	45	3	0	4	12	15	0	33	101	15	0	20	8	15	0
9:00 AM	8	38	4	0	2	3	6	0	6	68	8	0	4	15	8	0
9:15 AM	6	30	4	0	5	7	3	0	10	49	2	0	2	9	4	0
9:30 AM	4	43	2	0	5	4	1	0	11	58	4	0	1	12	9	0
9:45 AM	6	35	2	0	3	7	5	0	9	67	3	0	2	16	6	0
10:00 AM	7	31	3	0	3	5	6	0	8	58	5	0	0	8	2	0
10:15 AM	6	47	3	0	2	2	5	0	8	49	1	0	2	5	5	0
10:30 AM	4	32	6	0	4	4	5	0	11	56	1	0	3	9	5	0
10:45 AM	6	57	6	0	0	5	3	0	13	54	4	0	0	9	3	0
11:00 AM	9	51	3	0	5	6	8	0	6	49	0	0	6	5	5	0
11:15 AM	2	44	3	0	5	3	4	0	6	43	5	0	1	8	4	0
11:30 AM	7	40	5	0	5	9	5	0	7	50	2	0	1	12	2	0
11:45 AM	7	41	6	0	6	5	4	0	7	54	3	0	1	15	8	0
12:00 PM	16	59	8	0	5	15	3	0	4	59	1	0	4	4	5	0
12:15 PM	7	54	4	0	5	12	5	0	9	44	2	0	5	14	5	0
12:30 PM	5	47	5	0	7	9	8	0	8	51	6	0	10	14	5	0
12:45 PM	11	58	4	0	7	10	6	0	5	55	5	0	3	17	13	0
1:00 PM	13	59	7	0	7	13	6	0	2	49	6	0	2	11	6	0
1:15 PM	6	45	0	0	5	8	5	0	5	52	6	0	3	8	5	0
1:30 PM	5	54	7	0	3	11	7	0	3	58	3	0	5	11	5	0
1:45 PM	8	56	8	0	4	9	7	0	5	49	1	0	4	7	10	0
2:00 PM	3	62	7	0	4	11	10	0	2	55	6	0	3	7	1	0
2:15 PM	7	75	9	0	9	8	11	0	6	48	3	0	5	9	9	0
2:30 PM	11	95	3	0	3	9	13	0	12	55	6	0	5	8	11	0
2:45 PM	4	84	8	0	6	14	15	0	8	69	9	0	8	12	5	0
3:00 PM	4	91	10	0	7	15	8	0	4	49	3	0	3	14	6	0
3:15 PM	8	80	3	0	3	9	14	0	6	70	6	0	4	9	7	0
3:30 PM	11	121	5	0	2	12	27	0	11	39	4	0	9	9	3	0
3:45 PM	7	87	6	0	6	11	23	0	22	99	19	0	9	10	6	0
4:00 PM	10	90	14	0	9	17	16	0	16	62	11	0	1	9	7	0
4:15 PM	9	92	11	0	9	24	12	0	7	55	7	0	13	13	4	0
4:30 PM	15	126	9	0	6	19	10	0	7	66	9	0	6	13	5	0
4:45 PM	11	93	9	0	9	15	18	0	8	72	10	0	5	10	10	0
5:00 PM	18	130	8	0	1	27	11	0	12	54	9	0	6	14	7	0
5:15 PM	18	110	8	0	1	17	23	0	12	50	6	0	2	16	16	0
5:30 PM	11	110	10	0	7	14	16	0	9	64	4	0	4	12	10	0
5:45 PM	8	77	10	0	2	16	4	0	8	58	5	0	4	15	4	0

Study Name **Location 68 McClellan Ave & Pioneer Rd**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Pioneer Rd Westbound				McClellan Ave Northbound				Pioneer Rd Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	0	0	3	0	0	0	0	25	0	0	0	0	0	0
6:15 AM	0	10	4	0	11	0	1	0	1	29	0	0	0	0	0	0
6:30 AM	0	18	1	0	7	0	2	0	0	49	0	0	0	1	0	0
6:45 AM	0	12	3	0	8	0	0	0	2	38	0	0	0	0	0	0
7:00 AM	0	25	5	0	21	0	0	0	1	74	0	0	0	0	0	0
7:15 AM	0	33	18	0	22	0	0	0	2	79	0	0	0	0	1	0
7:30 AM	0	13	33	0	43	0	0	0	2	103	0	0	0	0	0	0
7:45 AM	0	21	16	0	45	0	2	0	3	73	0	0	0	0	0	0
8:00 AM	0	25	5	0	22	0	1	0	1	50	0	0	0	0	0	0
8:15 AM	0	27	9	0	21	0	0	0	0	71	0	0	0	0	0	0
8:30 AM	1	21	9	0	24	0	2	0	1	78	0	0	0	0	0	0
8:45 AM	0	17	10	0	39	0	1	0	1	70	0	0	0	2	0	0
9:00 AM	0	31	15	0	15	0	0	0	1	32	0	0	0	0	0	0
9:15 AM	1	25	8	0	9	0	0	0	3	52	0	0	0	1	1	0
9:30 AM	0	22	17	0	15	1	0	0	0	51	0	0	0	0	0	0
9:45 AM	1	23	12	0	13	1	0	0	4	58	0	0	0	0	1	0
10:00 AM	0	22	12	0	15	0	1	0	1	57	0	0	0	0	0	0
10:15 AM	0	32	10	0	10	0	1	0	0	42	0	0	0	0	0	0
10:30 AM	0	25	11	0	12	1	0	0	0	48	0	0	0	2	0	0
10:45 AM	0	33	17	0	16	0	0	0	2	50	0	0	0	0	0	0
11:00 AM	0	31	23	0	10	1	0	0	2	36	0	0	0	1	2	0
11:15 AM	1	34	13	0	11	1	2	0	4	42	0	0	0	1	0	0
11:30 AM	0	33	6	0	13	0	0	0	2	36	0	0	0	1	0	0
11:45 AM	1	27	11	0	15	1	0	0	1	31	0	0	0	0	0	0
12:00 PM	1	45	19	0	11	0	1	0	4	39	0	0	0	1	2	0
12:15 PM	0	33	25	0	19	3	0	0	3	34	1	0	0	0	0	0
12:30 PM	0	42	21	0	17	0	1	0	2	43	0	0	0	0	0	0
12:45 PM	3	39	18	0	15	0	2	0	2	37	0	0	0	0	2	0
1:00 PM	0	45	15	0	10	1	1	0	1	40	0	0	0	2	0	0
1:15 PM	1	40	12	0	17	0	0	0	5	41	0	0	1	0	3	0
1:30 PM	1	40	17	0	12	2	1	0	0	52	0	0	0	1	0	0
1:45 PM	0	48	15	0	17	0	3	0	1	33	0	0	0	0	0	0
2:00 PM	0	58	22	0	15	0	2	0	0	41	0	0	0	1	1	0
2:15 PM	1	57	22	0	19	0	2	0	0	38	0	0	1	1	0	0
2:30 PM	0	73	29	0	22	0	0	0	4	45	0	0	0	0	1	0
2:45 PM	0	77	25	0	29	0	6	0	0	42	0	0	0	0	0	0
3:00 PM	0	83	18	0	13	1	1	0	2	36	0	0	0	0	0	0
3:15 PM	0	65	21	0	25	0	0	0	1	47	0	0	0	0	0	0
3:30 PM	0	70	26	0	29	0	1	0	2	42	0	0	0	1	0	0
3:45 PM	0	81	38	0	19	0	1	0	2	64	0	0	0	0	0	0
4:00 PM	2	75	24	0	26	0	4	0	0	37	0	0	0	0	0	0
4:15 PM	1	81	26	0	20	0	1	0	2	44	0	0	0	0	0	0
4:30 PM	1	103	38	0	24	0	1	0	3	44	0	0	0	1	0	0
4:45 PM	1	82	30	0	17	1	3	0	0	64	0	0	0	2	0	0
5:00 PM	0	112	29	0	23	0	0	0	1	43	0	0	0	0	1	0
5:15 PM	0	109	29	0	16	0	0	0	2	49	0	0	0	0	0	0
5:30 PM	0	80	36	0	17	0	1	0	1	46	1	0	0	0	0	0
5:45 PM	1	62	22	0	21	0	0	0	2	45	0	0	1	0	1	0

Study Name **Location 68 McClellan Ave & Pioneer Rd**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Pioneer Rd Westbound				McClellan Ave Northbound				Pioneer Rd Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0	0	2	0	0	1	0	0	0
9:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	1	2	1	0	1	0	0	0	0	4	0	0	0	0	1	0
10:45 AM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0
11:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	3	0	0	1	0	0	0	0	3	0	0	0	0	0	0
12:30 PM	0	1	1	0	2	0	0	0	0	1	0	0	0	0	0	0
12:45 PM	1	2	1	0	0	0	0	0	0	1	0	0	0	0	1	0
1:00 PM	0	1	1	0	0	0	0	0	0	5	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	1	0	0	2	0	0	0	2	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0
2:15 PM	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:45 PM	0	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 68 McClellan Ave & Pioneer Rd**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Pioneer Rd Westbound				McClellan Ave Northbound				Pioneer Rd Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:30 AM	0	1	1	0	1	0	1	0	1	2	0	0	0	0	0	0
7:45 AM	0	0	0	0	3	0	0	0	0	4	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:00 AM	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	4	0	0	0	0	3	1	0	0	0	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0

Study Name **Location 68 McClellan Ave & Pioneer Rd**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Pioneer Rd Crossing North Leg	McClellan Ave Crossing East Leg	Pioneer Rd Crossing South Leg	McClellan Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	1	0	0
7:00 AM	0	0	1	1
7:15 AM	0	0	0	0
7:30 AM	0	1	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	1	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	1
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	1	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	1	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	1	0	0	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	1
5:00 PM	0	0	0	1
5:15 PM	0	0	0	0
5:30 PM	0	0	1	1
5:45 PM	0	0	0	0

Study Name **Location 68 McClellan Ave & Pioneer Rd**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Pioneer Rd Westbound				McClellan Ave Northbound				Pioneer Rd Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	8	0	0	3	0	0	0	0	25	0	0	0	0	0	0
6:15 AM	0	10	4	0	11	0	1	0	1	30	0	0	0	0	0	0
6:30 AM	0	20	1	0	7	0	2	0	0	49	0	0	0	1	0	0
6:45 AM	0	14	4	0	8	0	0	0	2	39	0	0	0	0	0	0
7:00 AM	0	26	5	0	21	0	0	0	1	75	0	0	0	0	0	0
7:15 AM	0	35	18	0	22	0	0	0	2	82	0	0	0	0	1	0
7:30 AM	0	14	34	0	44	0	1	0	3	107	0	0	0	0	0	0
7:45 AM	0	23	16	0	48	0	2	0	3	77	0	0	0	0	0	0
8:00 AM	0	25	5	0	23	0	1	0	2	54	0	0	0	0	0	0
8:15 AM	0	27	10	0	21	0	0	0	0	72	0	0	0	0	0	0
8:30 AM	2	24	10	0	24	0	2	0	1	79	0	0	0	0	0	0
8:45 AM	0	19	10	0	41	0	1	0	1	74	0	0	1	2	0	0
9:00 AM	0	33	15	0	15	0	0	0	1	33	0	0	0	0	0	0
9:15 AM	1	25	8	0	9	0	0	0	3	53	0	0	0	1	1	0
9:30 AM	0	24	17	0	15	1	0	0	0	54	0	0	0	0	0	0
9:45 AM	1	27	12	0	13	1	0	0	4	59	0	0	0	0	1	0
10:00 AM	0	24	12	0	15	0	1	0	1	58	0	0	0	0	0	0
10:15 AM	0	33	11	0	10	0	1	0	0	44	0	0	0	0	0	0
10:30 AM	1	27	12	0	13	1	0	0	0	54	0	0	0	2	1	0
10:45 AM	0	36	17	0	16	0	0	0	2	55	0	0	0	0	0	0
11:00 AM	0	36	23	0	10	1	0	0	2	41	0	0	0	1	2	0
11:15 AM	1	37	13	0	11	1	2	0	4	42	0	0	0	1	0	0
11:30 AM	0	35	7	0	13	0	0	0	2	37	0	0	0	1	0	0
11:45 AM	1	27	11	0	15	1	0	0	1	32	0	0	0	0	0	0
12:00 PM	1	46	19	0	11	0	1	0	4	43	0	0	0	1	2	0
12:15 PM	0	36	25	0	20	3	0	0	3	37	1	0	0	0	0	0
12:30 PM	0	43	22	0	19	0	1	0	2	44	0	0	0	0	0	0
12:45 PM	4	41	19	0	16	0	2	0	2	40	0	0	0	0	3	0
1:00 PM	0	47	16	0	10	1	1	0	1	46	0	0	0	2	0	0
1:15 PM	1	42	12	0	17	0	0	0	5	42	0	0	1	0	3	0
1:30 PM	1	41	17	0	12	2	1	0	0	52	0	0	0	1	0	0
1:45 PM	0	49	16	0	17	2	3	0	1	38	0	0	0	0	0	0
2:00 PM	0	59	22	0	15	0	2	0	0	41	0	0	0	3	1	0
2:15 PM	1	58	23	0	19	0	2	0	0	42	0	0	1	1	0	0
2:30 PM	0	75	32	0	22	0	0	0	4	49	0	0	0	0	1	0
2:45 PM	0	78	25	0	33	0	6	0	0	46	1	0	0	0	1	0
3:00 PM	0	83	18	0	13	1	1	0	2	36	0	0	0	0	0	0
3:15 PM	0	67	21	0	26	0	0	0	1	49	0	0	0	0	0	0
3:30 PM	0	73	26	0	29	0	1	0	2	44	0	0	0	1	0	0
3:45 PM	0	83	39	0	19	0	1	0	2	65	0	0	0	0	0	0
4:00 PM	2	78	26	0	26	1	6	0	0	38	0	0	0	0	0	0
4:15 PM	1	81	29	0	22	0	1	0	2	44	0	0	0	1	0	0
4:30 PM	1	103	38	0	24	0	1	0	3	49	0	0	0	1	0	0
4:45 PM	1	83	31	0	19	1	3	0	0	69	0	0	0	2	0	0
5:00 PM	0	112	29	0	23	0	0	0	1	45	0	0	0	0	1	0
5:15 PM	0	112	29	0	16	0	0	0	2	50	0	0	0	0	0	0
5:30 PM	0	81	36	0	17	0	1	0	1	49	1	0	0	0	0	0
5:45 PM	1	62	22	0	21	0	0	0	2	47	0	0	1	0	1	0

Study Name **Location 69 Lincoln Ave & Wright St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Parking Lot Southbound				Wright St Westbound				Lincoln Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	14	4	0	4	0	6	0	1	20	0	0
6:15 AM	0	0	0	0	0	24	1	0	7	0	1	0	2	34	0	0
6:30 AM	0	0	0	0	0	24	1	0	4	0	4	0	5	43	0	0
6:45 AM	0	0	0	0	2	34	6	0	7	0	5	0	11	48	0	0
7:00 AM	0	0	0	0	0	35	17	0	6	0	6	0	16	48	0	0
7:15 AM	0	0	0	0	0	34	18	0	10	0	3	0	9	36	0	0
7:30 AM	0	0	0	0	0	58	11	0	11	0	5	0	22	59	0	0
7:45 AM	0	1	0	0	2	68	34	0	24	0	7	0	39	114	1	0
8:00 AM	0	1	1	0	0	40	14	0	13	0	4	0	23	70	0	0
8:15 AM	0	0	0	0	0	48	15	0	10	0	6	0	19	54	0	0
8:30 AM	0	0	0	0	1	65	18	0	22	0	7	0	35	73	0	0
8:45 AM	0	0	1	0	0	57	39	0	35	0	9	0	42	83	0	0
9:00 AM	1	0	0	0	0	49	13	0	10	0	5	0	20	76	0	0
9:15 AM	0	1	0	0	1	52	19	0	17	0	4	0	20	49	0	0
9:30 AM	0	0	0	0	1	66	24	0	21	1	8	0	39	55	0	0
9:45 AM	1	0	1	0	3	63	45	0	50	0	15	0	37	75	1	0
10:00 AM	0	1	1	0	0	56	25	0	9	0	4	0	17	34	0	0
10:15 AM	0	0	1	0	3	64	16	0	19	0	7	0	12	47	0	0
10:30 AM	0	0	1	0	2	66	8	0	19	0	8	0	18	59	0	0
10:45 AM	1	0	0	0	2	79	22	0	29	0	20	0	22	54	1	0
11:00 AM	0	0	2	0	0	61	17	0	16	0	14	0	8	55	1	0
11:15 AM	3	0	1	0	1	78	15	0	24	1	9	0	16	70	0	0
11:30 AM	0	0	0	0	0	67	27	0	32	0	6	0	19	68	0	0
11:45 AM	0	1	0	0	1	93	41	0	44	1	12	0	36	99	0	0
12:00 PM	0	1	0	0	0	106	21	0	32	0	21	0	14	68	0	0
12:15 PM	0	0	0	0	0	74	15	0	22	1	11	0	13	84	1	0
12:30 PM	0	0	1	0	2	71	34	0	31	0	12	0	28	82	0	0
12:45 PM	0	0	1	0	1	76	35	0	47	0	19	0	13	103	1	0
1:00 PM	0	0	0	0	0	85	25	0	21	0	19	0	11	73	0	0
1:15 PM	0	0	0	0	0	75	16	0	26	0	14	0	15	77	0	0
1:30 PM	0	0	1	0	0	78	28	0	20	1	23	0	13	78	0	0
1:45 PM	0	0	0	0	0	97	25	0	35	0	25	0	22	84	2	0
2:00 PM	1	1	0	0	3	78	18	0	23	1	14	0	11	74	0	0
2:15 PM	1	0	1	0	0	83	33	0	35	1	20	0	17	81	0	0
2:30 PM	1	0	0	0	1	107	25	0	41	0	16	0	19	76	1	0
2:45 PM	1	1	0	0	0	112	36	0	35	3	14	0	27	84	0	0
3:00 PM	0	0	1	0	1	104	20	0	28	0	17	0	12	73	0	0
3:15 PM	0	0	0	0	1	107	21	0	22	0	14	0	13	78	0	0
3:30 PM	0	0	0	0	1	144	27	0	27	0	25	0	21	84	0	0
3:45 PM	0	0	1	0	1	115	32	0	33	0	23	0	26	96	0	0
4:00 PM	0	0	0	0	1	146	31	0	15	0	22	0	16	92	1	0
4:15 PM	1	0	1	0	0	111	27	0	21	1	19	0	11	86	0	0
4:30 PM	1	0	0	0	0	106	22	0	41	1	35	0	16	104	0	0
4:45 PM	2	0	1	0	0	128	29	0	35	0	23	0	17	93	0	0
5:00 PM	2	1	1	0	1	137	26	0	39	1	15	0	19	102	0	0
5:15 PM	0	0	1	0	2	115	20	0	29	0	22	0	25	91	0	0
5:30 PM	0	1	0	0	0	89	26	0	31	0	21	0	13	92	0	0
5:45 PM	0	0	2	0	1	110	45	0	35	0	12	0	20	92	0	0
6:00 PM	1	0	0	0	0	2	0	0	1	0	1	0	1	1	0	0

Study Name **Location 69 Lincoln Ave & Wright St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Parking Lot Southbound				Wright St Westbound				Lincoln Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	3	0	0
7:15 AM	0	0	0	0	0	4	0	0	0	0	1	0	1	1	0	0
7:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
7:45 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	3	0	0
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
8:45 AM	0	0	0	0	0	2	2	0	0	0	0	0	1	2	0	0
9:00 AM	0	0	1	0	1	4	0	0	0	0	0	0	0	4	0	0
9:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	1	2	0	0
9:45 AM	0	0	0	0	1	5	1	0	2	0	0	0	1	1	0	0
10:00 AM	1	1	1	0	0	1	1	0	0	0	0	0	2	2	0	0
10:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
10:30 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	1	1	0	0	0	1	0	0	5	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
11:15 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0
11:30 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0
11:45 AM	0	0	0	0	0	8	0	0	0	0	0	0	0	4	0	0
12:00 PM	0	0	0	0	0	3	0	0	0	0	1	0	1	2	0	0
12:15 PM	0	0	0	0	0	3	0	0	0	0	1	0	0	2	0	0
12:30 PM	0	0	0	0	0	2	1	0	1	0	0	0	1	1	0	0
12:45 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0
1:00 PM	0	0	0	0	0	6	0	0	0	0	0	0	1	3	0	0
1:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
1:30 PM	0	0	0	0	1	3	0	0	0	0	1	0	0	2	0	0
1:45 PM	0	0	1	0	0	4	2	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	3	0	0
2:15 PM	0	0	0	0	0	2	1	0	5	0	0	0	1	1	0	0
2:30 PM	0	0	0	0	0	1	1	0	1	0	0	0	0	5	0	0
2:45 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0
3:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	3	0	0
3:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
3:45 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	4	0	0	1	0	1	0	1	0	0	0
4:15 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	5	0	0	0	0	0	0	1	1	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
5:15 PM	0	0	0	0	0	4	1	0	1	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 69 Lincoln Ave & Wright St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Parking Lot Southbound				Wright St Westbound				Lincoln Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	5	0	0	0	0	1	0	1	1	0	0
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
11:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	1	1	0	1	0	0	0	0	2	0	0
12:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
1:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
2:00 PM	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0
3:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
4:00 PM	0	0	0	0	0	2	1	0	0	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 69 Lincoln Ave & Wright St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Parking Lot Crossing North Leg	Wright St Crossing East Leg	Lincoln Ave Crossing South Leg	Wright St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	1	0
6:30 AM	0	0	0	0
6:45 AM	0	0	1	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	1	0
9:00 AM	1	1	2	0
9:15 AM	0	0	0	0
9:30 AM	1	0	0	0
9:45 AM	0	0	0	0
10:00 AM	2	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	2	1
11:15 AM	1	1	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	2	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	1	0
1:00 PM	0	0	0	0
1:15 PM	0	1	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	2	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	1
3:15 PM	0	2	1	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	1	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	2	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	2	1	0
5:45 PM	0	0	0	0
6:00 PM	0	0	0	0

Study Name **Location 69 Lincoln Ave & Wright St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Parking Lot Southbound				Wright St Westbound				Lincoln Ave Northbound				Wright St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	15	4	0	4	0	6	0	1	22	0	0
6:15 AM	0	0	0	0	0	24	1	0	8	0	1	0	2	35	0	0
6:30 AM	0	0	0	0	0	25	1	0	4	0	4	0	5	44	0	0
6:45 AM	0	0	0	0	2	36	6	0	7	0	5	0	12	49	0	0
7:00 AM	0	0	0	0	0	40	18	0	6	0	7	0	18	52	0	0
7:15 AM	0	0	0	0	0	38	18	0	11	0	4	0	10	38	0	0
7:30 AM	0	0	0	0	0	61	11	0	11	0	5	0	22	62	0	0
7:45 AM	0	1	0	0	2	71	35	0	25	0	7	0	39	118	1	0
8:00 AM	0	1	1	0	0	41	15	0	13	0	4	0	23	71	0	0
8:15 AM	0	0	0	0	0	50	16	0	10	0	6	0	19	55	0	0
8:30 AM	0	0	0	0	1	69	18	0	22	0	7	0	36	77	0	0
8:45 AM	0	0	1	0	0	59	41	0	35	0	9	0	43	87	0	0
9:00 AM	1	0	1	0	1	53	13	0	10	0	5	0	20	82	0	0
9:15 AM	0	1	0	0	1	55	19	0	17	0	4	0	20	53	0	0
9:30 AM	0	0	0	0	1	69	24	0	21	1	9	0	40	57	0	0
9:45 AM	1	0	1	0	4	69	46	0	52	0	15	0	38	76	1	0
10:00 AM	1	2	2	0	0	57	26	0	9	0	4	0	19	36	0	0
10:15 AM	0	0	1	0	3	69	16	0	19	0	7	0	12	48	0	0
10:30 AM	0	0	1	0	3	68	8	0	19	0	8	0	18	60	0	0
10:45 AM	1	0	0	0	2	81	23	0	29	0	21	0	22	60	1	0
11:00 AM	0	0	2	0	0	62	17	0	16	0	14	0	8	58	1	0
11:15 AM	3	0	1	0	1	82	15	0	24	1	9	0	16	76	0	0
11:30 AM	0	0	0	0	0	72	27	0	32	0	6	0	19	71	0	0
11:45 AM	0	1	0	0	1	104	41	0	44	1	12	0	36	103	0	0
12:00 PM	0	1	0	0	0	109	21	0	33	0	22	0	15	71	0	0
12:15 PM	0	0	0	0	0	78	16	0	23	1	12	0	13	88	1	0
12:30 PM	0	0	1	0	2	74	35	0	32	0	12	0	29	83	0	0
12:45 PM	0	0	1	0	1	80	35	0	47	0	19	0	13	107	1	0
1:00 PM	0	0	0	0	0	92	25	0	21	0	19	0	12	79	0	0
1:15 PM	0	0	0	0	0	80	16	0	26	0	14	0	15	80	0	0
1:30 PM	0	0	1	0	1	82	28	0	20	1	24	0	13	80	0	0
1:45 PM	0	0	1	0	0	101	27	0	35	0	25	0	22	86	2	0
2:00 PM	1	1	0	0	3	80	19	0	24	1	15	0	11	77	0	0
2:15 PM	1	0	1	0	0	86	34	0	41	1	21	0	18	83	0	0
2:30 PM	1	0	0	0	1	108	26	0	42	0	16	0	19	83	1	0
2:45 PM	1	1	0	0	0	116	36	0	35	3	14	0	27	85	0	0
3:00 PM	0	0	1	0	1	109	20	0	28	0	17	0	12	75	0	0
3:15 PM	0	0	0	0	1	110	21	0	22	0	15	0	14	82	0	0
3:30 PM	0	0	0	0	1	145	28	0	27	0	25	0	22	86	0	0
3:45 PM	0	0	1	0	1	120	32	0	33	0	23	0	26	99	0	0
4:00 PM	0	0	0	0	1	152	32	0	16	0	23	0	18	92	1	0
4:15 PM	1	0	1	0	1	114	27	0	21	1	19	0	11	87	0	0
4:30 PM	1	0	0	0	0	111	22	0	41	1	35	0	17	106	0	0
4:45 PM	2	0	1	0	0	130	29	0	35	0	23	0	17	95	0	0
5:00 PM	2	1	1	0	1	139	27	0	40	1	15	0	19	103	0	0
5:15 PM	0	0	1	0	2	119	21	0	30	0	22	0	25	92	0	0
5:30 PM	0	1	0	0	0	93	26	0	31	0	21	0	13	92	0	0
5:45 PM	0	0	2	0	1	111	45	0	35	0	12	0	21	92	0	0
6:00 PM	1	0	0	0	0	2	0	0	1	0	1	0	1	1	0	0

Study Name **Location 70 Lincoln Ave & Fair Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				Fair Ave Westbound				Lincoln Ave Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	9	0	0	0	2	0	0	0	2	3	0	4	0	1	0
6:15 AM	2	7	0	0	0	2	0	0	0	5	4	0	9	0	0	0
6:30 AM	3	8	0	0	0	3	0	0	0	9	7	0	11	4	1	0
6:45 AM	4	14	0	0	0	2	0	0	3	12	4	0	17	12	2	0
7:00 AM	8	10	0	0	0	7	0	0	1	11	9	0	13	10	11	0
7:15 AM	9	9	0	0	2	19	0	0	2	10	17	0	48	22	12	0
7:30 AM	2	11	2	0	0	9	0	0	1	18	27	0	11	18	1	0
7:45 AM	9	21	1	0	1	11	1	0	8	25	24	0	28	24	2	0
8:00 AM	2	9	0	0	2	6	1	0	5	18	18	0	14	6	1	0
8:15 AM	4	12	0	0	1	5	0	0	4	14	12	0	10	10	2	0
8:30 AM	2	16	1	0	2	11	1	0	3	13	18	0	21	24	3	0
8:45 AM	6	22	4	0	0	6	3	0	12	20	24	0	37	33	3	0
9:00 AM	3	13	2	0	0	10	2	0	6	13	22	0	27	13	3	0
9:15 AM	2	17	2	0	0	9	2	0	2	10	22	0	20	13	3	0
9:30 AM	4	18	0	0	1	17	3	0	3	18	24	0	18	28	3	0
9:45 AM	3	21	1	0	2	23	5	0	8	23	24	0	22	27	8	0
10:00 AM	2	12	0	0	1	14	1	0	10	10	11	0	17	12	2	0
10:15 AM	3	15	1	0	1	5	3	0	4	8	16	0	21	8	4	0
10:30 AM	3	14	1	0	1	11	3	0	5	13	21	0	18	19	5	0
10:45 AM	3	27	2	0	4	15	8	0	6	12	33	0	19	8	5	0
11:00 AM	3	24	1	0	0	11	3	0	2	9	17	0	18	10	3	0
11:15 AM	10	17	0	0	2	13	7	0	1	17	14	0	21	7	4	0
11:30 AM	3	24	1	0	3	13	3	0	4	15	9	0	22	20	9	0
11:45 AM	12	36	0	0	3	28	7	0	6	21	32	0	25	27	5	0
12:00 PM	5	28	0	0	0	17	4	0	2	22	34	0	33	22	8	0
12:15 PM	3	31	0	0	2	9	7	0	2	25	34	0	33	21	5	0
12:30 PM	2	27	2	0	0	13	2	0	4	25	28	0	34	19	3	0
12:45 PM	7	30	3	0	0	27	6	0	4	21	33	0	37	26	1	0
1:00 PM	8	22	1	0	0	19	5	0	3	24	30	0	24	14	8	0
1:15 PM	6	21	1	0	2	8	2	0	4	9	27	0	21	18	3	0
1:30 PM	8	27	1	0	2	10	1	0	7	26	17	0	14	23	3	0
1:45 PM	7	22	6	0	4	15	6	0	9	19	25	0	27	14	8	0
2:00 PM	9	20	2	0	2	16	3	0	3	17	25	0	20	8	3	0
2:15 PM	9	17	2	0	2	21	2	0	3	13	26	0	30	20	9	0
2:30 PM	5	23	1	0	0	20	2	0	3	14	25	0	55	36	11	0
2:45 PM	16	24	2	0	3	30	11	0	7	15	24	0	17	27	6	0
3:00 PM	5	32	1	0	3	24	2	0	3	20	27	0	27	14	5	0
3:15 PM	5	17	0	0	0	10	5	0	3	14	20	0	22	15	2	0
3:30 PM	7	33	2	0	3	35	7	0	4	17	24	0	30	9	8	0
3:45 PM	7	28	2	0	2	32	6	0	4	23	35	0	29	17	9	0
4:00 PM	13	36	0	0	0	23	7	0	2	16	36	0	21	11	8	0
4:15 PM	10	24	0	0	1	16	3	0	2	23	28	0	29	13	5	0
4:30 PM	2	33	2	0	1	23	4	0	2	18	39	0	42	7	9	0
4:45 PM	4	28	2	0	0	24	2	0	1	16	31	0	40	21	13	0
5:00 PM	6	37	1	0	2	26	1	0	4	23	24	0	33	14	3	0
5:15 PM	6	30	3	0	2	28	4	0	4	20	30	0	19	17	4	0
5:30 PM	4	25	0	0	1	9	6	0	2	21	25	0	22	19	2	0
5:45 PM	4	24	2	0	2	25	2	0	6	22	20	0	23	28	4	0

Study Name **Location 70 Lincoln Ave & Fair Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				Fair Ave Westbound				Lincoln Ave Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	1	1	0	0
7:00 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
7:15 AM	1	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	2	0	0	0	1	0	0	0	0	1	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0
8:45 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
9:15 AM	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:45 AM	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0
10:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	2	0	0	0	1	0	0	0	0	2	0	2	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
10:45 AM	0	1	0	0	0	3	1	0	1	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
11:15 AM	0	1	0	0	0	1	0	0	0	0	1	0	1	0	0	0
11:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
12:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:30 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	1	1	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
1:15 PM	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0
1:45 PM	1	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0
2:00 PM	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0
2:45 PM	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0	0
3:00 PM	0	1	0	0	0	1	0	0	2	1	0	0	1	1	0	0
3:15 PM	0	2	0	0	0	0	1	0	0	0	1	0	0	0	0	0
3:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0
4:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 70 Lincoln Ave & Fair Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				Fair Ave Westbound				Lincoln Ave Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	2	5	2	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 70 Lincoln Ave & Fair Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Crossing North Leg	Fair Ave Crossing East Leg	Lincoln Ave Crossing South Leg	Fair Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	1	1
7:15 AM	0	0	0	1
7:30 AM	0	0	0	0
7:45 AM	0	0	1	0
8:00 AM	0	0	0	0
8:15 AM	0	1	1	0
8:30 AM	0	0	1	0
8:45 AM	1	0	4	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	2	0
9:45 AM	0	0	3	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	2	0
10:45 AM	1	0	1	0
11:00 AM	1	0	1	0
11:15 AM	1	0	0	0
11:30 AM	0	0	1	0
11:45 AM	0	0	1	0
12:00 PM	1	0	3	0
12:15 PM	1	0	0	0
12:30 PM	0	0	1	0
12:45 PM	0	0	1	0
1:00 PM	0	0	1	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	1	0	1	0
2:00 PM	0	0	0	0
2:15 PM	1	0	8	0
2:30 PM	0	0	1	0
2:45 PM	1	0	1	0
3:00 PM	0	0	1	0
3:15 PM	0	0	1	0
3:30 PM	0	0	0	0
3:45 PM	1	0	2	0
4:00 PM	0	0	0	0
4:15 PM	1	1	0	0
4:30 PM	0	2	0	0
4:45 PM	1	0	2	1
5:00 PM	0	0	0	0
5:15 PM	1	0	0	0
5:30 PM	1	1	0	0
5:45 PM	0	0	0	0

Study Name **Location 70 Lincoln Ave & Fair Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				Fair Ave Westbound				Lincoln Ave Northbound				Fair Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	9	0	0	0	2	0	0	0	3	3	0	4	0	1	0
6:15 AM	2	7	0	0	0	2	0	0	0	5	4	0	9	0	0	0
6:30 AM	3	9	0	0	0	3	0	0	0	9	7	0	11	4	1	0
6:45 AM	4	16	0	0	0	2	0	0	3	13	4	0	18	13	2	0
7:00 AM	8	11	0	0	0	8	0	0	1	12	9	0	18	10	12	0
7:15 AM	10	13	0	0	2	19	0	0	2	10	18	0	49	25	14	0
7:30 AM	2	11	2	0	0	9	0	0	1	18	28	0	11	18	1	0
7:45 AM	9	22	1	0	1	12	1	0	8	25	24	0	29	25	2	0
8:00 AM	2	9	1	0	2	6	1	0	5	19	18	0	14	6	1	0
8:15 AM	4	14	0	0	1	6	0	0	4	14	13	0	10	10	2	0
8:30 AM	2	17	1	0	2	11	1	0	3	13	18	0	23	24	3	0
8:45 AM	6	23	4	0	0	7	3	0	13	20	24	0	37	33	3	0
9:00 AM	3	13	2	0	0	11	2	0	7	13	22	0	27	13	4	0
9:15 AM	3	18	2	0	0	10	2	0	2	10	22	0	22	13	3	0
9:30 AM	4	18	0	0	1	17	3	0	3	18	24	0	19	28	4	0
9:45 AM	3	22	1	0	2	24	5	0	9	23	25	0	22	27	8	0
10:00 AM	2	12	0	0	1	16	1	0	10	10	11	0	17	12	2	0
10:15 AM	3	17	1	0	1	6	3	0	4	8	18	0	23	8	4	0
10:30 AM	3	14	1	0	1	12	3	0	5	13	21	0	19	19	5	0
10:45 AM	3	28	2	0	4	18	9	0	7	12	33	0	19	8	5	0
11:00 AM	3	24	1	0	0	11	3	0	2	9	18	0	19	10	3	0
11:15 AM	10	19	0	0	2	14	7	0	1	17	15	0	22	7	4	0
11:30 AM	4	24	1	0	3	13	3	0	4	15	9	0	22	20	10	0
11:45 AM	12	37	0	0	3	28	7	0	6	21	32	0	25	27	7	0
12:00 PM	5	29	0	0	0	18	4	0	2	22	35	0	33	22	9	0
12:15 PM	4	32	0	0	2	9	7	0	2	25	35	0	33	22	5	0
12:30 PM	2	28	2	0	0	14	3	0	4	25	28	0	34	20	4	0
12:45 PM	7	31	3	0	0	27	6	0	4	21	33	0	37	26	1	0
1:00 PM	8	22	1	0	0	19	5	0	3	24	31	0	25	14	8	0
1:15 PM	7	22	1	0	2	9	2	0	4	9	27	0	21	18	3	0
1:30 PM	8	28	1	0	3	10	1	0	7	26	18	0	14	23	3	0
1:45 PM	8	22	6	0	4	16	6	0	9	20	26	0	27	14	8	0
2:00 PM	9	22	3	0	2	18	3	0	3	19	25	0	20	8	3	0
2:15 PM	9	20	2	0	2	23	2	0	3	14	26	0	32	25	11	0
2:30 PM	5	24	1	0	1	20	2	0	3	14	25	0	55	37	11	0
2:45 PM	16	25	2	0	3	31	11	0	7	16	24	0	18	28	6	0
3:00 PM	5	33	1	0	3	25	2	0	5	21	27	0	28	15	5	0
3:15 PM	6	19	0	0	0	10	6	0	3	14	21	0	22	15	2	0
3:30 PM	7	35	2	0	3	37	7	0	4	17	24	0	30	9	8	0
3:45 PM	7	28	2	0	2	32	6	0	4	23	35	0	30	17	9	0
4:00 PM	14	38	0	0	0	24	7	0	2	16	36	0	22	12	8	0
4:15 PM	10	26	0	0	2	16	3	0	2	23	28	0	29	13	5	0
4:30 PM	2	33	2	0	1	23	4	0	2	18	39	0	43	7	9	0
4:45 PM	4	29	2	0	0	25	2	0	1	16	31	0	41	22	13	0
5:00 PM	6	38	1	0	3	26	1	0	4	23	24	0	33	14	3	0
5:15 PM	6	31	4	0	2	28	4	0	4	20	30	0	19	17	4	0
5:30 PM	4	25	0	0	1	10	6	0	2	21	25	0	22	19	2	0
5:45 PM	4	25	2	0	2	25	2	0	6	22	20	0	23	28	4	0

Study Name **Location 71 Lincoln Ave & College Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				College Ave Westbound				Lincoln Ave Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	7	0	2	0	0	0	11	3	0	0	0	0	0	0
6:15 AM	0	7	9	0	2	2	3	0	13	8	1	0	0	0	0	0
6:30 AM	0	13	7	0	7	3	7	0	27	9	1	0	0	0	0	0
6:45 AM	0	22	10	0	3	14	1	0	28	16	8	0	7	8	0	0
7:00 AM	2	15	5	0	8	49	4	0	9	14	40	0	17	24	0	0
7:15 AM	2	39	14	0	10	61	7	0	16	19	65	0	22	48	1	0
7:30 AM	0	14	10	0	25	4	11	0	24	22	0	0	4	1	0	0
7:45 AM	0	32	16	0	14	2	12	0	36	45	1	0	0	1	1	0
8:00 AM	0	13	11	0	15	4	6	0	19	22	0	0	1	1	1	0
8:15 AM	0	11	11	0	13	2	9	0	22	19	3	0	1	2	0	0
8:30 AM	0	25	13	0	8	1	5	0	15	26	1	0	0	0	0	0
8:45 AM	0	44	18	0	16	2	8	0	23	44	1	0	1	2	0	0
9:00 AM	0	21	19	0	17	2	18	0	9	24	0	0	4	2	0	0
9:15 AM	0	26	11	0	14	2	7	0	12	17	2	0	1	0	0	0
9:30 AM	0	22	16	0	15	0	13	0	15	29	1	0	0	0	0	0
9:45 AM	0	40	10	0	16	1	12	0	25	38	1	0	0	2	0	0
10:00 AM	1	18	11	0	11	4	5	0	11	21	2	0	2	2	0	0
10:15 AM	0	24	15	0	12	0	9	0	12	19	0	0	2	1	0	0
10:30 AM	0	19	17	0	12	0	16	0	13	30	1	0	0	0	0	0
10:45 AM	0	31	20	0	14	1	15	0	21	27	0	0	1	0	0	0
11:00 AM	0	24	21	0	17	0	13	0	15	13	1	0	0	2	0	0
11:15 AM	0	32	13	0	9	2	23	0	15	21	0	0	3	2	0	0
11:30 AM	0	27	20	0	9	3	15	0	24	19	4	0	5	3	0	0
11:45 AM	0	53	21	0	24	2	20	0	18	42	0	0	3	3	0	0
12:00 PM	1	43	22	0	25	1	13	0	21	35	5	0	21	15	0	0
12:15 PM	0	42	29	0	21	9	15	0	12	41	9	0	6	3	0	0
12:30 PM	0	36	27	0	23	4	25	0	14	34	5	0	5	2	0	0
12:45 PM	0	46	22	0	22	4	16	0	18	36	2	0	2	6	0	0
1:00 PM	0	30	26	0	21	1	19	0	19	31	0	0	1	1	0	0
1:15 PM	0	32	15	0	18	0	15	0	13	20	1	0	1	2	0	0
1:30 PM	0	25	18	0	17	2	16	0	20	35	2	0	3	2	2	0
1:45 PM	1	32	24	0	13	0	16	0	15	34	1	0	0	1	0	0
2:00 PM	0	29	14	0	23	7	22	0	9	25	6	0	4	5	0	0
2:15 PM	1	33	16	0	16	16	10	0	17	22	10	0	40	23	3	0
2:30 PM	0	50	26	0	20	7	22	0	8	21	5	0	22	32	1	0
2:45 PM	1	34	17	0	19	6	21	0	22	28	6	0	6	13	0	0
3:00 PM	0	41	21	0	21	4	23	0	16	24	5	0	7	10	3	0
3:15 PM	0	36	9	0	20	4	16	0	8	21	3	0	5	15	0	0
3:30 PM	0	50	18	0	25	8	31	0	16	18	1	0	9	7	1	0
3:45 PM	0	45	19	0	34	6	24	0	12	28	3	0	6	8	0	0
4:00 PM	0	46	16	0	21	9	30	0	12	32	1	0	5	4	0	0
4:15 PM	0	31	25	0	26	2	26	0	10	24	1	0	1	5	0	0
4:30 PM	0	57	19	0	29	2	20	0	9	37	2	0	7	8	0	0
4:45 PM	0	42	25	0	19	4	19	0	10	23	3	0	4	5	0	0
5:00 PM	0	41	31	0	29	2	29	0	7	27	0	0	5	1	1	0
5:15 PM	0	41	15	0	20	1	20	0	16	33	0	0	1	8	0	0
5:30 PM	0	36	15	0	19	4	15	0	18	25	0	0	1	5	0	0
5:45 PM	0	34	14	0	12	3	19	0	11	33	1	0	1	1	0	0

Study Name **Location 71 Lincoln Ave & College Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				College Ave Westbound				Lincoln Ave Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	1	0	1	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	1	2	0	0	0	1	0	0
7:15 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	2	1	0	0	0	2	0	0
7:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
8:15 AM	0	1	2	0	0	0	1	0	0	1	0	0	0	0	0	0
8:30 AM	0	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0	0
9:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0
9:45 AM	0	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
10:15 AM	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0
11:00 AM	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
12:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	1	0	0	1	1	0	0	0	1	0	0
1:15 PM	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0
1:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	2	0	0	0	1	1	0	0	0	0	0	0
2:00 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0
2:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0
3:00 PM	0	2	0	0	0	0	3	0	0	4	0	0	0	1	0	0
3:15 PM	0	1	2	0	0	0	0	0	2	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0
4:00 PM	0	1	1	0	0	0	2	0	1	0	0	0	0	0	0	0
4:15 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	1	0	1	1	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0

Study Name **Location 71 Lincoln Ave & College Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				College Ave Westbound				Lincoln Ave Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0
2:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	1	0	1	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 71 Lincoln Ave & College Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Crossing North Leg	College Ave Crossing East Leg	Lincoln Ave Crossing South Leg	Collegeg Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	2	0
6:30 AM	0	0	0	0
6:45 AM	1	0	0	0
7:00 AM	4	0	0	0
7:15 AM	1	0	5	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	1	0
8:30 AM	0	0	0	0
8:45 AM	0	1	0	1
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	1	0	0
9:45 AM	0	2	1	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	1	2	0
11:15 AM	0	2	4	0
11:30 AM	0	2	0	0
11:45 AM	0	1	0	0
12:00 PM	0	0	11	1
12:15 PM	0	0	5	1
12:30 PM	0	0	1	1
12:45 PM	0	0	0	1
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	1
2:00 PM	0	0	0	0
2:15 PM	8	0	3	5
2:30 PM	1	0	1	3
2:45 PM	0	1	0	0
3:00 PM	0	0	0	0
3:15 PM	0	1	0	1
3:30 PM	0	0	1	1
3:45 PM	0	1	2	2
4:00 PM	1	0	1	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	1	0	1	0
5:00 PM	1	0	1	1
5:15 PM	1	0	1	2
5:30 PM	0	2	2	1
5:45 PM	0	0	0	2

Study Name **Location 71 Lincoln Ave & College Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				College Ave Westbound				Lincoln Ave Northbound				College Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	7	0	2	0	0	0	11	4	0	0	0	0	0	0
6:15 AM	0	7	9	0	2	2	3	0	13	8	1	0	0	0	0	0
6:30 AM	0	14	7	0	7	3	7	0	27	9	1	0	0	0	0	0
6:45 AM	0	24	11	0	4	15	1	0	28	17	8	0	7	8	0	0
7:00 AM	2	21	5	0	8	54	4	0	10	16	40	0	17	25	0	0
7:15 AM	2	43	15	0	10	61	7	0	16	19	65	0	22	48	1	0
7:30 AM	0	14	10	0	25	5	11	0	26	23	0	0	4	3	0	0
7:45 AM	0	32	18	0	14	2	12	0	36	45	1	0	0	1	1	0
8:00 AM	0	13	11	0	15	5	6	0	20	23	0	0	1	2	1	0
8:15 AM	0	12	13	0	13	2	10	0	22	20	3	0	1	2	0	0
8:30 AM	0	26	15	0	8	1	5	0	16	26	1	0	0	0	0	0
8:45 AM	0	44	19	0	16	2	8	0	24	45	1	0	1	2	0	0
9:00 AM	0	21	19	0	17	2	18	0	11	25	0	0	4	3	0	0
9:15 AM	0	28	12	0	14	2	7	0	12	17	2	0	1	0	0	0
9:30 AM	0	22	16	0	16	0	13	0	16	29	1	0	1	0	0	0
9:45 AM	0	40	12	0	16	2	12	0	25	40	1	0	0	2	0	0
10:00 AM	1	18	11	0	11	4	6	0	11	21	2	0	2	3	0	0
10:15 AM	0	25	16	0	12	0	9	0	13	19	0	0	2	1	0	0
10:30 AM	0	19	17	0	12	0	16	0	13	30	1	0	0	0	0	0
10:45 AM	0	32	21	0	14	1	15	0	22	28	0	0	1	0	0	0
11:00 AM	0	25	21	0	18	1	14	0	15	13	1	0	0	2	0	0
11:15 AM	0	34	14	0	9	2	23	0	16	22	0	0	3	2	0	0
11:30 AM	0	27	20	0	9	3	15	0	24	19	4	0	5	3	0	0
11:45 AM	0	53	22	0	24	2	20	0	19	42	0	0	3	3	0	0
12:00 PM	1	44	22	0	26	1	13	0	21	35	5	0	21	15	0	0
12:15 PM	0	42	29	0	21	9	15	0	13	42	9	0	6	5	0	0
12:30 PM	0	37	28	0	23	4	25	0	14	34	5	0	5	2	0	0
12:45 PM	0	46	23	0	22	4	16	0	19	36	2	0	2	6	0	0
1:00 PM	0	31	26	0	21	2	19	0	20	32	0	0	1	2	0	0
1:15 PM	0	34	15	0	18	0	15	0	14	21	1	0	1	2	0	0
1:30 PM	0	25	19	0	18	2	16	0	20	35	2	0	3	2	2	0
1:45 PM	1	32	24	0	15	0	16	0	16	36	1	0	0	1	0	0
2:00 PM	0	30	16	0	23	8	22	0	9	26	6	0	4	6	0	0
2:15 PM	1	36	17	0	16	16	10	0	18	22	11	0	41	23	4	0
2:30 PM	0	50	27	0	20	8	22	0	8	21	5	0	22	32	1	0
2:45 PM	1	36	17	0	19	6	21	0	23	29	6	0	6	13	0	0
3:00 PM	0	43	21	0	21	4	26	0	16	28	5	0	7	11	3	0
3:15 PM	0	37	11	0	20	4	16	0	11	21	3	0	5	15	0	0
3:30 PM	0	52	18	0	25	8	31	0	16	18	1	0	9	7	1	0
3:45 PM	0	46	19	0	34	6	25	0	13	28	3	0	6	8	0	0
4:00 PM	0	48	17	0	21	9	32	0	13	32	1	0	5	4	0	0
4:15 PM	0	32	26	0	26	2	26	0	10	24	1	0	1	5	0	0
4:30 PM	0	57	20	0	29	2	21	0	10	38	2	0	7	9	0	0
4:45 PM	0	42	25	0	19	4	19	0	10	23	3	0	4	5	0	0
5:00 PM	0	42	32	0	29	2	29	0	7	28	0	0	5	1	1	0
5:15 PM	0	42	15	0	20	1	20	0	17	33	0	0	1	8	0	0
5:30 PM	0	37	15	0	19	4	15	0	18	25	1	0	1	5	0	0
5:45 PM	0	34	15	0	12	3	19	0	12	33	1	0	1	1	0	0

Study Name **Location 72 Lincoln Ave & Cleveland Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound			Lincoln Ave Northbound			Cleveland Ave Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	1	2	0	13	0	0	0	7	0
6:15 AM	2	6	0	17	0	0	1	8	0
6:30 AM	7	7	0	32	0	0	1	22	0
6:45 AM	5	18	0	43	0	0	3	25	0
7:00 AM	11	16	0	51	0	0	0	10	0
7:15 AM	8	48	0	78	0	0	2	22	0
7:30 AM	6	19	0	39	0	0	4	13	0
7:45 AM	10	33	0	65	1	0	4	24	0
8:00 AM	7	9	0	31	0	0	1	18	0
8:15 AM	8	18	0	35	0	0	3	18	0
8:30 AM	3	16	0	36	0	0	0	20	0
8:45 AM	9	29	0	54	1	0	4	30	0
9:00 AM	16	32	0	18	0	0	0	11	0
9:15 AM	9	24	0	24	0	0	1	10	0
9:30 AM	11	29	0	31	0	0	0	22	0
9:45 AM	10	27	0	43	0	0	2	22	0
10:00 AM	8	16	0	26	0	0	1	16	0
10:15 AM	10	30	0	20	0	0	0	9	0
10:30 AM	8	28	0	28	0	0	2	9	0
10:45 AM	17	42	0	31	0	0	0	17	0
11:00 AM	10	28	0	12	1	0	0	15	0
11:15 AM	27	34	0	22	4	0	0	14	0
11:30 AM	14	30	0	28	2	0	2	20	0
11:45 AM	19	48	0	26	1	0	1	17	0
12:00 PM	18	60	0	31	1	0	1	24	0
12:15 PM	13	44	0	41	0	0	1	16	0
12:30 PM	18	43	0	29	1	0	1	16	0
12:45 PM	17	42	0	26	0	0	1	22	0
1:00 PM	15	45	0	32	0	0	0	25	0
1:15 PM	13	30	0	25	0	0	2	11	0
1:30 PM	18	26	0	35	1	0	1	17	0
1:45 PM	15	33	0	28	0	0	4	21	0
2:00 PM	16	35	0	12	0	0	1	22	0
2:15 PM	15	46	0	27	1	0	2	18	0
2:30 PM	21	83	0	21	0	0	1	19	0
2:45 PM	22	49	0	39	2	0	2	14	0
3:00 PM	26	50	0	19	0	0	0	21	0
3:15 PM	17	41	0	18	0	0	2	12	0
3:30 PM	26	54	0	19	0	0	3	15	0
3:45 PM	23	55	0	20	2	0	5	18	0
4:00 PM	24	71	0	20	3	0	4	16	0
4:15 PM	22	53	0	24	0	0	3	14	0
4:30 PM	29	61	0	27	0	0	3	14	0
4:45 PM	22	43	0	22	0	0	0	14	0
5:00 PM	22	42	0	17	2	0	0	15	0
5:15 PM	19	52	0	22	2	0	0	22	0
5:30 PM	10	37	0	30	1	0	1	14	0
5:45 PM	18	37	0	30	1	0	0	14	0

Study Name **Location 72 Lincoln Ave & Cleveland Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound			Lincoln Ave Northbound			Cleveland Ave Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	1	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	1	0	0	0	0	0
6:45 AM	0	2	0	1	0	0	0	0	0
7:00 AM	0	1	0	2	0	0	0	1	0
7:15 AM	0	3	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	1	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	0	0
8:30 AM	1	1	0	0	1	0	1	2	0
8:45 AM	0	1	0	0	0	0	0	0	0
9:00 AM	0	1	0	1	0	0	0	2	0
9:15 AM	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	1	0
9:45 AM	0	0	0	0	0	0	0	1	0
10:00 AM	0	1	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	1	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	1	0	0	0	1	0
11:00 AM	0	2	0	0	0	0	0	0	0
11:15 AM	0	2	0	0	0	0	0	1	0
11:30 AM	0	0	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	1	0	0	0	1	0
12:30 PM	0	1	0	0	1	0	1	1	0
12:45 PM	0	0	0	1	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	1	1	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	1	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	1	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	1	0	0	0	1	0
3:00 PM	1	3	0	4	0	0	0	0	0
3:15 PM	0	2	0	1	0	0	0	1	0
3:30 PM	0	1	0	0	0	0	0	0	0
3:45 PM	0	1	0	1	0	0	0	0	0
4:00 PM	0	3	0	0	0	0	0	1	0
4:15 PM	0	0	0	1	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	1	1	0
4:45 PM	0	1	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	1	0	0	1	1	0
5:45 PM	0	1	0	0	0	0	0	1	0

Study Name **Location 72 Lincoln Ave & Cleveland Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound			Lincoln Ave Northbound			Cleveland Ave Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0
6:15 AM	1	1	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	1	1	0	0	0	0	0	0	0
7:15 AM	1	1	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0
7:45 AM	0	0	0	2	0	0	0	0	0
8:00 AM	0	1	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	3	0
9:15 AM	0	0	0	1	0	0	0	1	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	1	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	1	2	0	0	0	0	0	1	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	1	0	0	0	1	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	2	0
5:00 PM	0	0	0	0	0	0	0	2	0
5:15 PM	0	0	0	1	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0

Study Name **Location 72 Lincoln Ave & Clevela**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Crossing North Leg	Lincoln Ave Crossing South Leg	Cleveland Ave Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	1	0
7:15 AM	0	0	0
7:30 AM	1	0	0
7:45 AM	0	0	0
8:00 AM	1	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	1	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	1	1	1
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	1	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	1
4:30 PM	0	0	0
4:45 PM	0	1	0
5:00 PM	0	0	1
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0

Study Name **Location 72 Lincoln Ave & Cleveland Ave**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound			Lincoln Ave Northbound			Cleveland Ave Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	1	3	0	14	0	0	0	7	0
6:15 AM	3	7	0	17	0	0	1	8	0
6:30 AM	7	7	0	33	0	0	1	22	0
6:45 AM	5	20	0	44	0	0	3	25	0
7:00 AM	12	18	0	53	0	0	0	11	0
7:15 AM	9	52	0	78	0	0	2	22	0
7:30 AM	6	20	0	40	0	0	4	14	0
7:45 AM	10	33	0	67	1	0	4	24	0
8:00 AM	7	11	0	32	1	0	1	18	0
8:15 AM	9	18	0	35	0	0	3	18	0
8:30 AM	4	17	0	36	1	0	1	22	0
8:45 AM	9	30	0	54	1	0	4	30	0
9:00 AM	16	34	0	19	0	0	0	16	0
9:15 AM	9	24	0	25	0	0	2	11	0
9:30 AM	11	29	0	31	0	0	0	23	0
9:45 AM	10	27	0	43	0	0	2	23	0
10:00 AM	8	17	0	26	0	0	1	16	0
10:15 AM	10	30	0	20	0	0	0	10	0
10:30 AM	8	28	0	28	0	0	2	9	0
10:45 AM	17	42	0	32	0	0	0	18	0
11:00 AM	10	30	0	12	1	0	0	15	0
11:15 AM	27	36	0	22	4	0	0	15	0
11:30 AM	14	30	0	29	2	0	2	20	0
11:45 AM	19	48	0	26	1	0	1	18	0
12:00 PM	18	61	0	31	1	0	1	24	0
12:15 PM	13	44	0	42	0	0	1	17	0
12:30 PM	18	44	0	29	2	0	2	17	0
12:45 PM	17	42	0	27	0	0	2	22	0
1:00 PM	15	45	0	32	0	0	0	25	0
1:15 PM	13	30	0	25	0	0	3	12	0
1:30 PM	18	26	0	35	1	0	1	17	0
1:45 PM	16	33	0	28	0	0	4	22	0
2:00 PM	16	35	0	12	0	0	1	22	0
2:15 PM	16	48	0	27	1	0	2	20	0
2:30 PM	21	83	0	21	0	0	1	19	0
2:45 PM	22	50	0	40	2	0	2	15	0
3:00 PM	27	53	0	23	0	0	0	21	0
3:15 PM	17	43	0	20	0	0	2	14	0
3:30 PM	26	55	0	19	0	0	3	15	0
3:45 PM	23	56	0	21	2	0	5	18	0
4:00 PM	24	75	0	20	3	0	4	17	0
4:15 PM	22	53	0	25	0	0	4	15	0
4:30 PM	29	61	0	27	0	0	4	16	0
4:45 PM	22	44	0	22	0	0	0	16	0
5:00 PM	22	43	0	17	2	0	0	17	0
5:15 PM	19	52	0	23	2	0	0	24	0
5:30 PM	10	37	0	31	1	0	2	15	0
5:45 PM	18	38	0	30	1	0	0	15	0

Study Name **Location 73 Lincoln Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				Washington St Westbound				Parking Lot Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	9	0	0	0	2	13	0	0	0	0	0	0	0	20	7	0
6:15 AM	5	0	1	0	0	14	0	0	0	0	0	0	0	31	18	0
6:30 AM	4	0	5	0	1	17	0	0	0	0	0	0	0	37	25	0
6:45 AM	10	0	7	0	13	21	0	0	0	0	0	0	1	48	29	0
7:00 AM	15	0	13	0	27	31	0	0	0	0	0	0	1	31	14	0
7:15 AM	34	0	13	0	43	45	0	0	0	0	1	0	2	51	28	0
7:30 AM	22	0	11	0	11	46	0	0	0	0	0	0	1	71	22	0
7:45 AM	22	0	22	0	11	46	0	0	0	0	1	0	1	89	45	0
8:00 AM	15	0	9	0	10	54	0	0	0	0	0	0	0	49	18	0
8:15 AM	8	0	9	0	6	57	0	0	0	0	0	0	0	76	19	0
8:30 AM	7	1	12	0	11	62	0	0	0	0	0	0	1	88	28	0
8:45 AM	17	0	13	0	11	88	0	0	0	0	0	0	0	80	23	0
9:00 AM	17	0	13	0	10	86	0	0	0	0	0	0	0	69	18	0
9:15 AM	13	0	11	0	3	77	0	0	0	0	0	0	1	62	20	0
9:30 AM	14	0	13	0	7	86	0	0	0	2	1	0	0	80	19	0
9:45 AM	22	0	24	0	6	73	0	0	0	0	0	0	1	96	21	0
10:00 AM	31	0	11	0	7	86	0	0	0	0	0	0	1	85	15	0
10:15 AM	19	0	10	0	15	82	0	0	0	0	1	0	1	101	22	0
10:30 AM	23	0	7	0	6	83	0	0	0	0	2	0	3	91	24	0
10:45 AM	27	0	8	0	10	103	0	0	0	0	0	0	0	79	14	0
11:00 AM	24	0	17	0	10	125	0	0	0	0	0	0	0	87	8	0
11:15 AM	27	0	9	0	8	78	0	0	0	0	0	0	0	99	16	0
11:30 AM	29	1	13	0	5	114	0	0	0	0	0	0	1	124	19	0
11:45 AM	37	0	21	0	7	139	1	0	0	0	2	0	2	108	24	0
12:00 PM	39	0	16	0	7	140	0	0	0	2	1	0	1	160	20	0
12:15 PM	25	0	19	0	4	127	0	0	0	0	1	0	1	122	26	0
12:30 PM	28	0	14	0	13	116	0	0	0	0	1	0	1	136	29	0
12:45 PM	25	0	20	0	8	142	0	0	0	0	0	0	2	133	30	0
1:00 PM	30	0	10	0	13	139	0	0	0	0	0	0	1	114	16	0
1:15 PM	19	0	17	0	8	132	0	0	0	0	0	0	0	120	21	0
1:30 PM	39	1	19	0	12	126	0	0	0	0	0	0	1	119	25	0
1:45 PM	31	0	19	0	14	139	0	0	0	0	0	0	2	118	18	0
2:00 PM	36	1	18	0	8	129	0	0	1	0	0	0	0	114	34	0
2:15 PM	48	0	16	0	19	134	1	0	0	0	0	0	1	118	26	0
2:30 PM	53	0	43	0	13	137	0	0	0	0	1	0	0	120	27	0
2:45 PM	40	0	23	0	14	113	0	0	0	0	0	0	1	112	30	0
3:00 PM	38	0	17	0	11	118	0	0	0	0	0	0	1	91	25	0
3:15 PM	38	0	28	0	14	130	0	0	0	0	0	0	0	124	17	0
3:30 PM	44	0	25	0	10	131	0	0	0	0	0	0	2	94	23	0
3:45 PM	54	0	24	0	12	141	0	0	0	0	0	0	1	122	28	0
4:00 PM	38	0	22	0	13	145	0	0	0	0	1	0	1	128	27	0
4:15 PM	26	0	16	0	13	139	0	0	0	0	0	0	0	116	20	0
4:30 PM	40	0	24	0	14	144	0	0	0	0	1	0	3	104	15	0
4:45 PM	38	0	29	0	13	136	0	0	0	0	0	0	0	123	13	0
5:00 PM	33	0	35	0	17	169	0	0	0	0	1	0	1	106	23	0
5:15 PM	38	0	22	0	10	143	0	0	0	0	1	0	0	104	23	0
5:30 PM	29	0	19	0	10	99	0	0	0	1	1	0	0	116	28	0
5:45 PM	32	0	11	0	11	98	0	0	0	1	3	0	1	110	21	0
6:00 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	4	0	0

Study Name **Location 73 Lincoln Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				Washington St Westbound				Parking Lot Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0
6:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0
6:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0
7:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	2	0	0	1	0	0	0	0	0	0	0	1	1	0
7:30 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	1	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
8:00 AM	0	0	1	0	0	2	0	0	1	0	0	0	1	3	0	0
8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
8:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
9:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
9:30 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	5	0	0
9:45 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0
10:00 AM	1	1	1	0	0	3	0	0	0	0	0	0	0	1	0	0
10:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
10:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	5	1	0
11:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0
11:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	1	0
11:30 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0
11:45 AM	0	0	1	0	0	3	0	0	1	0	0	0	0	2	0	0
12:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
12:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	1	0	0	0	1	5	0	0	0	0	0	0	0	3	1	0
12:45 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
1:00 PM	1	0	1	0	0	2	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
1:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
2:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
2:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	0
2:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	1	1	1	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
3:00 PM	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	0	0	0	1	2	0	0	0	0	1	0	0	5	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0
3:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
4:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
4:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
5:15 PM	0	0	1	0	0	3	0	0	0	0	0	0	0	2	0	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 73 Lincoln Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				Washington St Westbound				Parking Lot Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
7:15 AM	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 73 Lincoln Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Crossing North Leg	Washington St Crossing East Leg	Lincoln Ave Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	1	0	0	0
8:00 AM	1	0	5	3
8:15 AM	1	0	0	2
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	1	0	1	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	2	2	0
10:15 AM	0	1	0	0
10:30 AM	0	0	2	0
10:45 AM	2	0	2	0
11:00 AM	0	0	0	0
11:15 AM	1	2	0	1
11:30 AM	1	0	2	0
11:45 AM	1	0	2	1
12:00 PM	4	0	0	0
12:15 PM	0	0	0	0
12:30 PM	3	0	0	0
12:45 PM	0	0	2	0
1:00 PM	3	2	4	2
1:15 PM	1	0	3	0
1:30 PM	2	0	2	2
1:45 PM	1	0	1	0
2:00 PM	1	1	2	2
2:15 PM	0	0	3	0
2:30 PM	0	0	1	2
2:45 PM	0	0	3	1
3:00 PM	1	1	0	0
3:15 PM	1	0	1	1
3:30 PM	2	0	2	3
3:45 PM	0	0	1	0
4:00 PM	1	0	3	0
4:15 PM	0	1	0	0
4:30 PM	1	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	1	0	0	0
5:45 PM	1	0	1	0
6:00 PM	0	0	0	0

Study Name **Location 73 Lincoln Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lincoln Ave Southbound				Washington St Westbound				Parking Lot Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	12	0	0	0	2	13	0	0	0	0	0	0	0	20	7	0
6:15 AM	5	0	2	0	0	16	0	0	0	0	0	0	0	33	19	0
6:30 AM	4	0	6	0	1	20	0	0	0	0	0	0	0	39	26	0
6:45 AM	10	0	9	0	13	22	0	0	0	0	0	0	1	49	29	0
7:00 AM	15	0	14	0	27	34	0	0	0	0	0	0	1	32	14	0
7:15 AM	34	0	19	0	43	46	0	0	0	0	1	0	2	54	29	0
7:30 AM	22	0	13	0	11	48	0	0	0	0	0	0	1	73	23	0
7:45 AM	22	0	23	0	12	47	0	0	0	0	1	0	1	91	45	0
8:00 AM	15	0	10	0	10	56	0	0	1	0	0	0	1	52	18	0
8:15 AM	9	0	9	0	6	57	0	0	0	0	0	0	0	79	19	0
8:30 AM	8	1	12	0	11	64	0	0	0	0	0	0	2	89	28	0
8:45 AM	17	0	13	0	11	88	0	0	0	0	0	0	0	83	23	0
9:00 AM	18	0	13	0	10	87	0	0	0	0	0	0	0	73	18	0
9:15 AM	13	0	11	0	3	79	0	0	0	0	0	0	1	65	20	0
9:30 AM	14	0	13	0	7	92	0	0	0	2	1	0	0	86	19	0
9:45 AM	22	0	24	0	7	75	0	0	0	0	0	0	1	97	21	0
10:00 AM	32	1	12	0	7	89	0	0	0	0	0	0	1	86	15	0
10:15 AM	19	0	10	0	15	84	0	0	0	0	1	0	1	103	22	0
10:30 AM	23	0	7	0	6	86	0	0	0	0	2	0	3	92	24	0
10:45 AM	27	0	8	0	10	103	0	0	1	0	0	0	0	84	15	0
11:00 AM	25	0	17	0	10	126	0	0	0	0	0	0	1	89	8	0
11:15 AM	27	0	9	0	8	79	0	0	0	0	0	0	0	102	17	0
11:30 AM	29	1	13	0	5	118	0	0	0	0	0	0	1	127	19	0
11:45 AM	37	0	22	0	7	143	1	0	1	0	2	0	2	110	24	0
12:00 PM	40	0	16	0	7	140	0	0	0	2	1	0	1	163	20	0
12:15 PM	26	0	20	0	4	127	0	0	0	0	1	0	1	122	26	0
12:30 PM	29	0	14	0	14	121	0	0	0	0	1	0	1	139	30	0
12:45 PM	25	0	21	0	8	144	0	0	0	0	0	0	2	133	30	0
1:00 PM	31	0	11	0	13	141	0	0	0	0	0	0	1	115	16	0
1:15 PM	19	0	17	0	8	134	0	0	0	0	0	0	0	122	21	0
1:30 PM	39	1	19	0	12	127	0	0	0	0	0	0	1	120	25	0
1:45 PM	31	0	19	0	14	140	0	0	0	0	0	0	3	118	18	0
2:00 PM	36	1	18	0	8	131	0	0	1	0	0	0	0	116	34	0
2:15 PM	48	0	17	0	19	136	1	0	0	0	0	0	1	119	27	0
2:30 PM	53	0	45	0	13	140	0	0	0	0	1	0	1	121	28	0
2:45 PM	40	0	23	0	14	113	0	0	0	0	0	0	1	116	30	0
3:00 PM	39	0	18	0	11	119	0	0	0	0	0	0	1	92	25	0
3:15 PM	38	0	28	0	15	133	0	0	0	0	1	0	0	129	17	0
3:30 PM	44	0	25	0	10	131	0	0	0	0	0	0	2	100	24	0
3:45 PM	55	0	24	0	12	144	0	0	0	0	0	0	1	123	28	0
4:00 PM	39	0	22	0	13	146	0	0	0	0	1	0	2	130	27	0
4:15 PM	26	0	16	0	13	139	0	0	0	0	0	0	0	119	20	0
4:30 PM	40	0	24	0	14	146	0	0	0	0	1	0	3	104	15	0
4:45 PM	38	0	29	0	13	136	0	0	0	0	0	0	0	123	13	0
5:00 PM	33	0	35	0	17	171	0	0	0	0	1	0	1	107	23	0
5:15 PM	38	0	23	0	10	146	0	0	0	0	1	0	0	106	24	0
5:30 PM	29	0	19	0	10	101	0	0	0	1	1	0	0	116	28	0
5:45 PM	32	0	11	0	11	100	0	0	0	1	3	0	1	110	21	0
6:00 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	4	0	0

Study Name **Location 74 7th St & Magnetic St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Magnetic St Westbound				7th St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	1	0	4	6	1	0	2	10	0	0
6:15 AM	0	1	0	0	0	3	1	0	4	12	2	0	1	9	0	0
6:30 AM	0	4	0	0	0	2	0	0	10	26	6	0	1	19	0	0
6:45 AM	1	3	3	0	0	3	2	0	42	54	3	0	0	36	2	0
7:00 AM	1	11	1	0	4	9	6	0	6	44	7	0	4	16	0	0
7:15 AM	0	24	0	0	4	13	2	0	13	65	6	0	10	19	0	0
7:30 AM	0	24	0	0	3	11	2	0	17	43	1	0	5	12	0	0
7:45 AM	0	14	1	0	7	10	4	0	16	96	6	0	4	30	1	0
8:00 AM	0	9	1	0	5	12	3	0	11	54	0	0	9	13	0	0
8:15 AM	1	10	1	0	6	7	0	0	18	31	2	0	3	10	1	0
8:30 AM	0	21	0	0	4	7	7	0	6	52	2	0	4	11	0	0
8:45 AM	0	26	1	0	9	15	3	0	8	91	8	0	18	23	0	0
9:00 AM	0	19	4	0	5	11	2	0	14	63	9	0	12	8	0	0
9:15 AM	0	13	1	0	7	13	4	0	2	37	3	0	6	4	1	0
9:30 AM	0	17	3	0	5	17	3	0	4	52	2	0	4	13	2	0
9:45 AM	0	37	0	0	11	16	3	0	7	75	11	0	3	17	1	0
10:00 AM	0	24	2	0	4	11	4	0	7	37	2	0	4	21	0	0
10:15 AM	0	15	2	0	1	9	1	0	7	26	0	0	2	7	1	0
10:30 AM	1	21	3	0	6	17	3	0	9	34	2	0	1	3	2	0
10:45 AM	2	27	1	0	7	24	5	0	6	52	3	0	6	14	0	0
11:00 AM	1	33	2	0	5	9	5	0	4	27	2	0	6	16	1	0
11:15 AM	1	24	7	0	1	14	2	0	3	20	1	0	3	6	0	0
11:30 AM	0	20	0	0	5	14	1	0	3	26	3	0	4	13	1	0
11:45 AM	3	44	10	0	11	25	4	0	8	58	0	0	5	24	0	0
12:00 PM	0	36	2	0	7	21	4	0	5	32	6	0	7	15	0	0
12:15 PM	1	18	2	0	2	29	4	0	6	30	4	0	6	20	0	0
12:30 PM	2	34	3	0	4	19	6	0	2	32	2	0	9	18	0	0
12:45 PM	1	44	5	0	5	19	2	0	4	47	8	0	5	20	0	0
1:00 PM	0	22	2	0	5	28	4	0	6	24	1	0	12	13	0	0
1:15 PM	0	26	2	0	4	20	3	0	6	29	6	0	5	18	1	0
1:30 PM	1	28	3	0	6	19	4	0	1	38	2	0	5	8	0	0
1:45 PM	1	43	2	0	6	19	2	0	8	50	5	0	5	19	0	0
2:00 PM	1	50	1	0	6	18	5	0	4	22	2	0	3	15	0	0
2:15 PM	0	20	4	0	4	11	5	0	2	26	3	0	4	13	1	0
2:30 PM	1	53	5	0	2	17	5	0	10	45	5	0	7	24	0	0
2:45 PM	0	45	2	0	3	17	5	0	7	54	5	0	4	18	1	0
3:00 PM	0	65	3	0	3	27	12	0	5	30	6	0	4	9	0	0
3:15 PM	0	44	5	0	5	24	10	0	2	21	3	0	3	9	2	0
3:30 PM	0	69	7	0	11	23	25	0	0	33	1	0	19	18	0	0
3:45 PM	2	65	3	0	6	19	8	0	4	47	6	0	11	19	0	0
4:00 PM	2	52	4	0	2	30	20	0	2	43	14	0	2	21	1	0
4:15 PM	3	44	6	0	5	20	9	0	2	39	6	0	8	12	1	0
4:30 PM	0	55	5	0	2	30	12	0	5	23	4	0	4	17	1	0
4:45 PM	2	42	3	0	7	11	8	0	7	26	5	0	9	10	1	0
5:00 PM	0	67	4	0	3	13	14	0	3	39	1	0	7	24	0	0
5:15 PM	1	61	4	0	6	27	11	0	5	31	6	0	5	16	0	0
5:30 PM	0	36	7	0	6	20	6	0	9	36	1	0	7	15	0	0
5:45 PM	0	45	5	0	10	20	8	0	3	36	2	0	7	19	0	0
6:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	1	0	0	0

Study Name **Location 74 7th St & Magnetic St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Magnetic St Westbound				7th St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
7:15 AM	0	2	0	0	1	1	0	0	0	2	0	0	0	1	0	0
7:30 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0
8:30 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	1	0	0	0	2	0	0	0	0	1	0
10:00 AM	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:30 AM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	1	0	0	2	0	0	1	0	0	0
12:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
12:45 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0
1:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
1:45 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0	1	0	0	1	1	0	0	1	0	0
2:15 PM	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0
2:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	3	0	0	0	0	1	0	0	3	0	0	1	0	0	0
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 74 7th St & Magnetic St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Magnetic St Westbound				7th St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0
9:15 AM	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	1	0	0	0	3	0	1	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 74 7th St & Magnetic St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Magnetic St Crossing East Leg	7th St Crossing South Leg	Magnetic St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	1	0	0
6:15 AM	0	0	0	0
6:30 AM	1	2	0	0
6:45 AM	1	2	0	0
7:00 AM	1	1	1	0
7:15 AM	0	0	0	0
7:30 AM	0	1	0	0
7:45 AM	0	2	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	1	0
8:45 AM	0	1	0	0
9:00 AM	0	0	1	0
9:15 AM	0	0	0	0
9:30 AM	1	3	0	0
9:45 AM	0	3	1	0
10:00 AM	2	3	0	0
10:15 AM	0	2	0	0
10:30 AM	0	1	1	1
10:45 AM	0	5	1	0
11:00 AM	0	2	0	0
11:15 AM	0	1	1	0
11:30 AM	0	1	0	0
11:45 AM	0	3	1	1
12:00 PM	0	2	0	0
12:15 PM	0	1	0	0
12:30 PM	0	0	0	0
12:45 PM	0	3	0	0
1:00 PM	0	2	0	0
1:15 PM	0	4	0	0
1:30 PM	0	2	1	0
1:45 PM	1	1	0	0
2:00 PM	0	2	1	0
2:15 PM	0	0	0	0
2:30 PM	0	4	3	0
2:45 PM	0	4	0	0
3:00 PM	1	4	1	1
3:15 PM	0	3	1	0
3:30 PM	0	3	2	0
3:45 PM	0	4	1	1
4:00 PM	1	3	0	0
4:15 PM	2	1	0	0
4:30 PM	1	2	0	0
4:45 PM	1	1	0	0
5:00 PM	1	3	0	0
5:15 PM	0	1	2	0
5:30 PM	0	4	0	0
5:45 PM	0	1	0	0
6:00 PM	0	0	0	0

Study Name **Location 74 7th St & Magnetic St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Magnetic St Westbound				7th St Northbound				Magnetic St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	1	0	4	6	1	0	4	10	0	0
6:15 AM	0	1	0	0	0	3	1	0	4	12	2	0	1	10	0	0
6:30 AM	0	4	0	0	0	2	0	0	10	26	6	0	1	21	0	0
6:45 AM	1	3	3	0	0	3	2	0	42	55	3	0	0	36	2	0
7:00 AM	1	13	1	0	4	9	6	0	6	46	7	0	4	17	0	0
7:15 AM	0	28	0	0	5	14	2	0	13	67	6	0	10	21	0	0
7:30 AM	0	26	0	0	3	12	2	0	17	44	1	0	5	13	0	0
7:45 AM	0	14	1	0	7	10	5	0	16	96	6	0	4	30	1	0
8:00 AM	0	9	1	0	5	14	3	0	11	55	1	0	9	13	0	0
8:15 AM	1	11	1	0	7	8	0	0	18	32	2	0	3	10	1	0
8:30 AM	1	22	0	0	4	7	7	0	6	52	2	0	5	11	0	0
8:45 AM	0	27	1	0	9	15	3	0	8	92	8	0	20	24	0	0
9:00 AM	0	21	4	0	5	12	2	0	14	65	12	0	12	8	0	0
9:15 AM	0	14	1	0	7	16	4	0	2	37	4	0	6	5	1	0
9:30 AM	0	17	3	0	5	17	3	0	4	52	2	0	4	13	2	0
9:45 AM	0	38	0	0	11	17	3	0	7	77	12	0	3	17	2	0
10:00 AM	2	24	2	0	4	11	4	0	8	37	2	0	4	21	0	0
10:15 AM	0	16	3	0	1	9	1	0	7	26	0	0	2	11	1	0
10:30 AM	1	21	3	0	6	17	5	0	9	35	2	0	1	3	2	0
10:45 AM	2	27	1	0	7	24	5	0	7	52	3	0	6	14	0	0
11:00 AM	1	33	2	0	6	9	6	0	5	28	5	0	7	16	1	0
11:15 AM	1	24	7	0	1	15	2	0	3	20	1	0	3	6	0	0
11:30 AM	0	20	0	0	6	14	1	0	3	26	3	0	4	13	1	0
11:45 AM	3	44	10	0	11	25	4	0	9	58	1	0	5	24	0	0
12:00 PM	0	36	2	0	7	21	4	0	5	33	6	0	7	16	0	0
12:15 PM	1	19	2	0	2	29	5	0	6	32	4	0	7	20	0	0
12:30 PM	3	34	3	0	4	21	7	0	3	32	2	0	9	19	0	0
12:45 PM	1	45	5	0	5	19	2	0	5	47	8	0	5	20	0	0
1:00 PM	0	22	2	0	5	30	4	0	6	26	2	0	12	13	0	0
1:15 PM	0	26	3	0	5	20	3	0	6	29	6	0	5	18	1	0
1:30 PM	1	28	4	0	6	19	4	0	1	39	2	0	5	9	0	0
1:45 PM	1	43	2	0	6	20	2	0	9	50	5	0	5	20	0	0
2:00 PM	2	50	1	0	6	18	6	0	4	23	3	0	3	17	0	0
2:15 PM	0	21	4	0	4	11	6	0	2	26	4	0	6	13	1	0
2:30 PM	1	54	5	0	2	19	6	0	11	45	5	0	7	25	0	0
2:45 PM	0	46	2	0	3	17	5	0	9	54	5	0	4	19	1	0
3:00 PM	0	65	3	0	3	28	12	0	5	30	6	0	4	9	0	0
3:15 PM	0	44	6	0	5	25	10	0	2	21	3	0	3	10	2	0
3:30 PM	0	69	8	0	11	23	25	0	0	34	1	0	21	18	0	0
3:45 PM	2	66	3	0	6	19	8	0	4	48	7	0	11	19	0	0
4:00 PM	2	55	4	0	2	30	21	0	2	47	15	0	3	21	1	0
4:15 PM	3	45	6	0	5	20	10	0	2	39	7	0	8	13	1	0
4:30 PM	0	55	5	0	2	30	12	0	6	24	4	0	4	17	1	0
4:45 PM	2	42	3	0	7	13	10	0	7	26	5	0	9	10	1	0
5:00 PM	0	67	4	0	3	13	14	0	3	39	3	0	7	24	0	0
5:15 PM	1	62	4	0	6	27	12	0	5	31	6	0	5	16	0	0
5:30 PM	0	36	7	0	6	20	7	0	9	36	1	0	8	16	0	0
5:45 PM	0	45	5	0	10	20	9	0	3	36	2	0	7	19	0	0
6:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	1	0	0	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Washington St Westbound				7th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	3	0	0	1	12	2	0	1	9	1	0	1	9	4	0
6:15 AM	5	2	0	0	2	9	3	0	4	13	2	0	0	9	9	0
6:30 AM	7	7	0	0	4	9	0	0	3	45	5	0	1	21	16	0
6:45 AM	8	5	1	0	3	19	4	0	2	52	8	0	3	27	19	0
7:00 AM	10	8	3	0	4	30	1	0	2	46	31	0	4	23	10	0
7:15 AM	6	28	3	0	1	28	3	0	1	48	40	0	13	42	10	0
7:30 AM	14	34	2	0	6	40	4	0	6	60	6	0	8	61	12	0
7:45 AM	13	22	4	0	5	44	3	0	9	98	22	0	8	81	15	0
8:00 AM	10	6	2	0	7	57	3	0	5	44	11	0	3	53	16	0
8:15 AM	11	6	1	0	4	33	4	0	0	30	14	0	10	36	14	0
8:30 AM	10	20	3	0	5	57	2	0	4	57	11	0	8	51	10	0
8:45 AM	13	19	2	0	5	68	3	0	5	92	8	0	11	70	17	0
9:00 AM	12	10	3	0	6	73	5	0	5	24	10	0	2	66	7	0
9:15 AM	11	9	4	0	4	61	3	0	3	27	9	0	8	65	9	0
9:30 AM	18	9	0	0	7	70	2	0	3	47	11	0	14	56	8	0
9:45 AM	18	18	5	0	5	60	0	0	2	50	16	0	10	71	13	0
10:00 AM	7	21	2	0	3	62	2	0	4	35	9	0	3	63	6	0
10:15 AM	8	11	3	0	2	65	5	0	8	21	5	0	9	76	8	0
10:30 AM	10	16	1	0	5	74	2	0	4	28	8	0	6	84	11	0
10:45 AM	10	16	6	0	6	75	5	0	3	30	6	0	9	85	11	0
11:00 AM	14	25	9	0	4	91	6	0	6	24	12	0	8	65	9	0
11:15 AM	13	15	6	0	5	81	3	0	3	15	9	0	12	78	7	0
11:30 AM	15	20	2	0	1	79	5	0	3	32	6	0	14	77	8	0
11:45 AM	16	25	7	0	7	93	3	0	10	34	12	0	11	98	13	0
12:00 PM	19	19	7	0	7	93	4	0	4	30	19	0	23	88	17	0
12:15 PM	15	14	9	0	5	98	2	0	5	18	17	0	14	92	8	0
12:30 PM	18	22	6	0	6	79	3	0	8	27	10	0	12	100	11	0
12:45 PM	14	30	7	0	7	81	2	0	9	35	11	0	14	107	11	0
1:00 PM	12	24	7	0	11	87	3	0	11	17	9	0	14	90	10	0
1:15 PM	18	18	6	0	4	79	6	0	3	31	8	0	8	84	6	0
1:30 PM	9	19	6	0	7	89	4	0	6	35	9	0	8	77	12	0
1:45 PM	13	22	6	0	2	81	1	0	3	32	4	0	11	71	14	0
2:00 PM	11	28	5	0	4	95	6	0	7	13	9	0	11	63	14	0
2:15 PM	12	19	1	0	3	93	4	0	7	18	3	0	12	81	9	0
2:30 PM	19	38	9	0	7	83	6	0	6	44	14	0	25	80	13	0
2:45 PM	14	37	5	0	7	65	5	0	9	40	24	0	12	78	14	0
3:00 PM	18	53	10	0	4	82	3	0	10	24	14	0	21	90	9	0
3:15 PM	21	32	6	0	7	73	6	0	7	21	8	0	8	87	12	0
3:30 PM	26	51	9	0	6	73	5	0	8	27	12	0	15	74	19	0
3:45 PM	34	44	12	0	2	87	13	0	6	23	9	0	17	90	17	0
4:00 PM	25	51	8	0	7	100	8	0	5	21	12	0	21	96	12	0
4:15 PM	15	39	5	0	7	84	8	0	7	22	8	0	10	81	13	0
4:30 PM	22	48	8	0	5	113	6	0	5	10	9	0	17	89	19	0
4:45 PM	21	38	10	0	8	91	6	0	5	22	14	0	21	97	17	0
5:00 PM	24	53	6	0	7	100	2	0	6	26	9	0	23	79	21	0
5:15 PM	23	29	9	0	3	78	5	0	9	27	9	0	17	98	17	0
5:30 PM	18	21	5	0	4	66	2	0	3	26	7	0	19	79	17	0
5:45 PM	17	30	3	0	5	64	7	0	4	23	11	0	15	72	9	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Washington St Westbound				7th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0
6:30 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	2	0	0	1	2	0	0	0	1	1	0
7:00 AM	0	3	1	0	0	3	0	0	0	2	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	3	1	0	0	2	0	0	1	1	0	0
7:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0
7:45 AM	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0
8:00 AM	0	1	0	0	0	2	0	0	0	1	1	0	0	2	0	0
8:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0
8:30 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0
9:00 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	2	0	0
9:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0
9:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	2	0	0
9:45 AM	0	1	0	0	0	1	0	0	1	1	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	2	0	0	1	0	0	0	1	1	1	0
10:15 AM	0	2	0	0	0	1	0	0	0	1	1	0	1	4	0	0
10:30 AM	1	0	0	0	0	5	0	0	1	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	2	0	0	0	1	0	0	0	3	1	0
11:00 AM	0	0	0	0	1	0	0	0	0	1	1	0	1	0	1	0
11:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	2	2	0	0
11:30 AM	0	0	0	0	0	3	0	0	1	0	1	0	1	1	0	0
11:45 AM	0	1	0	0	0	2	0	0	1	1	0	0	0	1	1	0
12:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0
12:15 PM	1	1	0	0	0	0	0	0	1	1	0	0	1	2	0	0
12:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	1	1	0	0
12:45 PM	0	1	0	0	0	2	1	0	0	0	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	3	0	0
1:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	2	0	0
1:45 PM	0	0	0	0	1	2	0	0	0	0	1	0	0	2	1	0
2:00 PM	1	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
2:15 PM	1	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0
2:30 PM	1	0	0	0	0	2	0	0	0	2	0	0	0	1	2	0
2:45 PM	0	0	0	0	0	1	0	0	0	1	1	0	1	3	0	0
3:00 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0
3:30 PM	0	1	0	0	0	2	0	0	0	3	0	0	2	1	0	0
3:45 PM	0	1	0	0	0	1	0	0	0	2	0	0	1	1	0	0
4:00 PM	0	2	0	0	0	1	0	0	0	2	0	0	0	1	0	0
4:15 PM	1	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	2	1	0
4:45 PM	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	2	0	0
5:15 PM	2	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0
5:30 PM	0	0	1	0	0	3	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	1	0	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Washington St Westbound				7th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
6:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	3	0	0	0	1	1	0	1	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0
9:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	1	0	1	0	0	0	0	0	0	3	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	2	0	0	1	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Washington St Crossing East Leg	7th St Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	2	0
7:15 AM	0	0	0	0
7:30 AM	1	0	0	0
7:45 AM	0	0	2	0
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	1	1	0	0
8:45 AM	3	0	0	0
9:00 AM	0	0	0	1
9:15 AM	1	0	1	0
9:30 AM	0	0	1	0
9:45 AM	0	0	0	0
10:00 AM	0	1	0	0
10:15 AM	1	0	0	0
10:30 AM	1	2	0	2
10:45 AM	0	0	0	0
11:00 AM	0	0	0	2
11:15 AM	0	0	0	0
11:30 AM	0	0	1	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	1	0	1	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	1	0
1:15 PM	0	1	1	0
1:30 PM	0	1	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	1	0	0
3:00 PM	0	1	0	0
3:15 PM	0	1	0	0
3:30 PM	0	2	0	0
3:45 PM	0	2	2	0
4:00 PM	0	0	1	0
4:15 PM	0	1	0	0
4:30 PM	0	2	0	0
4:45 PM	0	0	0	0
5:00 PM	1	2	0	0
5:15 PM	1	1	0	0
5:30 PM	0	0	1	0
5:45 PM	0	2	0	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Washington St Westbound				7th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	5	0	0	1	13	2	0	1	9	1	0	1	9	4	0
6:15 AM	5	2	1	0	2	10	3	0	4	13	2	0	0	12	10	0
6:30 AM	8	8	1	0	4	10	0	0	3	45	5	0	1	22	16	0
6:45 AM	8	5	1	0	3	21	4	0	3	54	8	0	3	28	20	0
7:00 AM	10	11	4	0	4	36	1	0	2	49	32	0	5	23	10	0
7:15 AM	6	30	3	0	2	31	4	0	1	50	40	0	16	43	10	0
7:30 AM	14	36	2	0	6	41	4	0	6	60	6	0	11	62	12	0
7:45 AM	14	23	4	0	5	44	3	0	9	100	23	0	10	81	15	0
8:00 AM	10	7	2	0	7	59	3	0	5	45	12	0	3	55	16	0
8:15 AM	11	6	1	0	4	33	4	0	1	31	14	0	11	37	14	0
8:30 AM	10	22	3	0	5	59	2	0	4	57	11	0	8	52	10	0
8:45 AM	13	22	2	0	5	68	3	0	5	92	8	0	11	72	19	0
9:00 AM	12	13	3	0	6	73	6	0	5	25	10	0	2	68	7	0
9:15 AM	11	10	4	0	4	62	3	0	3	28	9	0	9	65	9	0
9:30 AM	18	9	0	0	7	72	2	0	3	47	11	0	15	58	8	0
9:45 AM	18	19	5	0	5	61	0	0	3	52	16	0	10	72	13	0
10:00 AM	7	21	2	0	3	64	2	0	5	35	9	0	4	64	7	0
10:15 AM	8	13	3	0	2	67	5	0	8	22	6	0	10	80	8	0
10:30 AM	11	16	1	0	5	79	2	0	5	28	8	0	6	85	11	0
10:45 AM	10	16	6	0	6	77	5	0	3	31	6	0	9	88	12	0
11:00 AM	15	25	10	0	5	91	6	0	6	28	13	0	9	66	10	0
11:15 AM	14	15	6	0	6	81	3	0	3	15	9	0	14	80	7	0
11:30 AM	15	20	2	0	1	82	5	0	4	33	7	0	15	78	8	0
11:45 AM	16	26	7	0	7	95	3	0	11	35	12	0	11	99	14	0
12:00 PM	19	19	7	0	7	95	4	0	4	30	19	0	24	90	17	0
12:15 PM	16	16	9	0	5	99	2	0	6	19	17	0	15	94	8	0
12:30 PM	18	22	6	0	6	82	3	0	8	28	10	0	13	101	11	0
12:45 PM	14	31	7	0	7	83	3	0	9	36	12	0	14	109	11	0
1:00 PM	12	24	7	0	11	88	3	0	11	18	9	0	14	94	10	0
1:15 PM	18	18	6	0	4	82	6	0	3	31	8	0	8	84	6	0
1:30 PM	9	19	6	0	7	91	4	0	6	36	9	0	9	80	12	0
1:45 PM	13	22	6	0	3	83	1	0	3	32	5	0	11	73	15	0
2:00 PM	12	28	5	0	4	97	6	0	7	14	9	0	11	64	14	0
2:15 PM	13	23	1	0	3	94	5	0	7	18	3	0	14	82	9	0
2:30 PM	20	39	9	0	7	85	6	0	6	46	14	0	25	81	15	0
2:45 PM	14	38	5	0	7	66	5	0	9	41	25	0	13	81	14	0
3:00 PM	18	53	11	0	4	86	3	0	11	25	14	0	21	91	9	0
3:15 PM	21	33	6	0	7	73	6	0	7	22	9	0	9	88	12	0
3:30 PM	26	52	9	0	6	77	5	0	9	30	12	0	17	75	20	0
3:45 PM	34	45	12	0	2	90	13	0	6	26	9	0	18	91	17	0
4:00 PM	25	53	8	0	7	101	8	0	5	23	12	0	21	98	12	0
4:15 PM	16	40	5	0	7	85	8	0	7	24	8	0	10	82	13	0
4:30 PM	22	48	8	0	5	114	6	0	5	10	9	0	18	92	20	0
4:45 PM	22	39	10	0	8	92	6	0	5	23	14	0	21	97	17	0
5:00 PM	24	53	6	0	7	102	3	0	6	28	9	0	24	81	21	0
5:15 PM	25	29	9	0	3	80	6	0	10	27	9	0	17	99	17	0
5:30 PM	18	21	6	0	4	69	2	0	3	26	7	0	19	80	17	0
5:45 PM	17	32	3	0	5	64	7	0	4	23	11	0	17	73	9	0

Study Name **Location 76 5th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Southbound				Washington St Westbound				5th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	17	0	0	1	0	0	0	2	7	0	0
6:15 AM	1	0	0	0	0	9	0	0	1	1	0	0	0	13	0	0
6:30 AM	0	0	0	0	0	9	0	0	1	0	0	0	0	21	1	0
6:45 AM	1	0	1	0	0	24	1	0	3	0	3	0	1	29	0	0
7:00 AM	1	1	0	0	0	27	1	0	3	0	3	0	1	19	1	0
7:15 AM	1	2	0	0	1	25	4	0	6	1	2	0	1	42	0	0
7:30 AM	0	2	0	0	0	33	3	0	4	0	8	0	5	58	1	0
7:45 AM	1	2	0	0	0	37	1	0	10	2	12	0	9	77	0	0
8:00 AM	1	1	1	0	0	53	1	0	8	2	7	0	6	51	0	0
8:15 AM	1	0	2	0	1	33	0	0	4	0	3	0	2	36	1	0
8:30 AM	2	0	0	0	1	49	3	0	3	3	7	0	4	46	0	0
8:45 AM	4	2	1	0	2	51	4	0	1	3	7	0	10	62	0	0
9:00 AM	0	1	1	0	0	55	2	0	3	1	6	0	1	62	1	0
9:15 AM	1	2	1	0	1	63	0	0	4	1	3	0	2	74	4	0
9:30 AM	1	1	1	0	1	70	1	0	2	1	5	0	5	49	0	0
9:45 AM	2	0	0	0	1	65	0	0	8	1	5	0	6	77	2	0
10:00 AM	0	3	0	0	0	64	3	0	7	0	6	0	9	55	0	0
10:15 AM	1	1	1	0	0	58	3	0	5	1	7	0	10	65	3	0
10:30 AM	1	0	0	0	1	66	2	0	8	1	8	0	8	80	1	0
10:45 AM	0	1	0	0	0	77	4	0	2	0	3	0	6	83	1	0
11:00 AM	2	2	1	0	0	89	1	0	6	3	10	0	8	61	2	0
11:15 AM	1	4	0	0	3	83	1	0	7	1	8	0	9	73	1	0
11:30 AM	2	1	0	0	3	78	1	0	2	0	1	0	6	67	0	0
11:45 AM	2	2	0	0	1	80	4	0	6	1	9	0	3	102	3	0
12:00 PM	6	3	0	0	3	97	5	0	6	1	10	0	6	84	0	0
12:15 PM	1	0	0	0	2	92	1	0	1	2	7	0	9	89	5	0
12:30 PM	0	1	0	0	2	71	3	0	2	1	9	0	6	104	2	0
12:45 PM	0	0	1	0	1	81	2	0	2	2	9	0	10	108	2	0
1:00 PM	4	2	1	0	3	81	0	0	4	2	5	0	11	86	1	0
1:15 PM	0	1	0	0	1	78	4	0	5	2	12	0	8	78	1	0
1:30 PM	0	1	2	1	0	83	3	0	6	1	6	0	11	59	0	0
1:45 PM	2	2	0	0	1	72	3	0	5	3	3	0	7	72	2	0
2:00 PM	1	2	3	0	0	97	4	0	6	4	6	0	6	71	0	0
2:15 PM	0	2	0	0	1	86	1	0	11	0	1	0	7	74	0	0
2:30 PM	1	1	0	0	0	84	4	0	6	3	13	0	9	84	2	0
2:45 PM	0	0	1	0	3	68	3	0	4	0	6	0	8	81	1	0
3:00 PM	2	2	0	0	1	80	3	0	4	3	7	0	10	95	2	0
3:15 PM	0	3	1	0	0	69	3	0	4	0	6	0	9	82	1	0
3:30 PM	1	1	1	0	5	65	2	0	2	0	5	0	5	76	2	0
3:45 PM	2	3	0	0	1	77	2	0	6	3	6	0	5	87	2	0
4:00 PM	3	4	0	0	0	92	6	0	9	1	13	0	6	95	3	0
4:15 PM	3	2	0	0	5	91	5	0	3	3	6	0	6	81	3	0
4:30 PM	4	4	3	0	3	101	2	0	1	0	10	0	4	96	1	0
4:45 PM	0	2	1	0	2	90	3	0	6	1	4	0	9	91	1	0
5:00 PM	0	2	0	0	0	97	2	0	18	4	13	0	4	83	1	0
5:15 PM	1	1	0	0	1	75	3	0	5	2	6	0	11	97	4	0
5:30 PM	1	1	0	0	2	63	2	0	3	1	4	0	6	92	2	0
5:45 PM	2	1	0	0	0	62	2	0	3	0	9	0	3	75	4	0

Study Name **Location 76 5th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Southbound				Washington St Westbound				5th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	2	0	0	0	2	0	0	1	2	0	0	1	1	0	0
7:00 AM	0	0	0	0	0	3	1	0	0	0	1	0	0	1	0	0
7:15 AM	0	0	0	0	0	4	0	0	1	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
8:00 AM	1	0	0	0	0	1	1	0	1	0	0	0	0	2	0	0
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0
9:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
9:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	3	0	0
10:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
10:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0
10:30 AM	1	0	0	0	0	3	0	0	0	0	1	0	0	4	0	0
10:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0
11:00 AM	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
11:30 AM	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0
11:45 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	2	1	0
12:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0	0
12:30 PM	0	1	0	0	0	3	0	0	1	2	0	0	0	1	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	0
1:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
1:30 PM	2	0	0	0	1	1	0	0	1	0	0	0	0	3	0	0
1:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
2:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
2:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
2:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
2:45 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	3	0	0
3:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	3	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	1	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
4:00 PM	1	0	0	0	0	1	1	0	0	0	0	0	0	2	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
4:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	1	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	1	0
5:15 PM	2	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0
5:30 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0

Study Name **Location 76 5th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Southbound				Washington St Westbound				5th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 76 5th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Crossing North Leg	Washington St Crossing East Leg	5th St Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	1	0	0	0
7:00 AM	0	0	2	0
7:15 AM	0	0	0	0
7:30 AM	1	0	0	0
7:45 AM	0	1	0	0
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	1	0	0	1
8:45 AM	1	0	1	1
9:00 AM	2	0	1	0
9:15 AM	0	0	0	0
9:30 AM	1	0	1	0
9:45 AM	1	0	1	0
10:00 AM	0	0	3	0
10:15 AM	2	0	2	2
10:30 AM	2	2	1	0
10:45 AM	0	0	1	0
11:00 AM	0	0	1	0
11:15 AM	1	0	0	0
11:30 AM	0	0	1	0
11:45 AM	0	0	1	0
12:00 PM	0	2	1	0
12:15 PM	1	0	0	0
12:30 PM	0	0	1	0
12:45 PM	0	0	0	0
1:00 PM	0	0	1	0
1:15 PM	0	0	4	0
1:30 PM	0	0	3	0
1:45 PM	1	0	3	2
2:00 PM	1	0	1	1
2:15 PM	4	2	3	1
2:30 PM	0	0	4	3
2:45 PM	0	1	0	0
3:00 PM	0	1	2	0
3:15 PM	4	1	1	0
3:30 PM	0	0	1	0
3:45 PM	1	0	2	0
4:00 PM	0	1	0	1
4:15 PM	0	1	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	1	1
5:15 PM	2	1	0	0
5:30 PM	3	2	1	0
5:45 PM	0	2	1	0

Study Name **Location 76 5th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	5th St Southbound				Washington St Westbound				5th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	17	0	0	2	0	0	0	2	7	0	0
6:15 AM	1	0	0	0	0	10	0	0	1	1	0	0	1	14	0	0
6:30 AM	0	0	0	0	0	10	0	0	1	0	0	0	0	23	1	0
6:45 AM	1	2	1	0	0	26	1	0	4	2	3	0	2	31	0	0
7:00 AM	1	1	0	0	0	33	2	0	3	0	4	0	1	20	1	0
7:15 AM	1	2	0	0	1	29	4	0	7	2	2	0	1	43	0	0
7:30 AM	0	2	0	0	0	33	4	0	4	0	9	0	5	58	1	0
7:45 AM	1	2	0	0	0	37	1	0	11	2	12	0	9	77	1	0
8:00 AM	2	1	1	0	0	54	2	0	9	3	7	0	6	53	0	0
8:15 AM	1	0	2	0	1	33	0	0	5	0	3	0	2	38	1	0
8:30 AM	2	0	0	0	1	50	3	0	3	3	7	0	4	47	0	0
8:45 AM	4	2	1	0	2	51	4	0	1	3	7	0	10	64	0	0
9:00 AM	0	1	1	0	0	55	3	0	3	1	6	0	1	64	1	0
9:15 AM	1	2	1	0	1	64	0	0	5	1	3	0	2	74	4	0
9:30 AM	1	1	1	0	1	71	1	0	2	1	5	0	5	50	0	0
9:45 AM	2	0	0	0	1	67	0	0	9	1	5	0	6	80	2	0
10:00 AM	0	3	0	0	0	65	4	0	7	0	6	0	9	56	0	0
10:15 AM	1	1	1	0	0	59	3	0	6	1	7	0	10	67	3	0
10:30 AM	2	0	0	0	1	69	2	0	8	1	9	0	8	85	1	0
10:45 AM	0	1	0	0	0	78	4	0	2	0	3	0	6	87	1	0
11:00 AM	2	2	1	0	0	90	2	0	7	3	10	0	8	63	2	0
11:15 AM	1	4	0	0	3	84	1	0	7	1	8	0	9	75	1	0
11:30 AM	2	1	0	0	3	81	1	0	3	0	1	0	6	67	0	0
11:45 AM	2	2	1	0	1	82	4	0	6	1	9	0	3	104	4	0
12:00 PM	6	3	0	0	3	98	6	0	6	1	10	0	6	85	0	0
12:15 PM	1	0	0	0	2	93	2	0	1	2	7	0	9	92	5	0
12:30 PM	0	2	0	0	2	74	3	0	3	3	9	0	6	105	2	0
12:45 PM	0	1	1	0	1	81	2	0	2	2	9	0	10	110	2	0
1:00 PM	4	2	1	0	3	81	1	0	4	2	5	0	11	90	1	0
1:15 PM	0	1	0	0	1	81	4	0	5	2	12	0	8	78	1	0
1:30 PM	2	1	2	1	1	84	3	0	7	1	6	0	11	62	0	0
1:45 PM	2	2	0	0	1	74	3	0	5	3	3	0	8	73	2	0
2:00 PM	1	2	3	0	0	99	4	0	6	4	6	0	6	72	0	0
2:15 PM	0	2	0	0	1	87	2	0	11	0	1	0	7	75	0	0
2:30 PM	1	1	0	0	0	86	4	0	6	3	13	0	9	85	2	0
2:45 PM	0	0	1	0	3	71	3	0	5	0	6	0	8	84	1	0
3:00 PM	3	2	0	0	1	81	4	0	4	3	7	0	10	98	2	0
3:15 PM	0	3	1	0	0	69	3	0	4	0	6	0	9	83	1	0
3:30 PM	1	1	1	0	5	67	2	0	3	0	5	0	5	77	2	0
3:45 PM	2	3	0	0	1	78	2	0	7	3	7	0	5	87	2	0
4:00 PM	4	4	0	0	0	93	7	0	9	1	13	0	6	97	4	0
4:15 PM	3	3	0	0	5	91	5	0	3	3	6	0	6	83	3	0
4:30 PM	4	4	3	0	3	103	2	0	2	0	10	0	4	98	2	0
4:45 PM	0	2	1	0	2	90	3	0	6	1	4	0	9	91	1	0
5:00 PM	0	2	0	0	0	100	2	0	18	4	13	0	4	85	2	0
5:15 PM	3	1	0	0	2	75	3	0	5	2	7	0	11	98	4	0
5:30 PM	1	1	0	0	2	65	3	0	3	1	4	0	6	93	2	0
5:45 PM	2	1	0	0	0	62	2	0	3	0	9	0	3	77	4	0

Study Name **Location 77 4th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Washington St Westbound				4th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	4	0	0	10	10	1	0	0	8	1	0	1	13	8	0
6:15 AM	3	8	3	0	10	9	1	0	0	32	2	0	2	12	8	0
6:30 AM	7	7	0	0	10	16	1	0	1	16	3	0	1	18	11	0
6:45 AM	5	12	2	0	4	21	0	0	1	27	2	0	2	27	6	0
7:00 AM	4	30	4	0	8	26	0	0	5	19	4	0	7	28	9	0
7:15 AM	8	34	6	0	7	23	4	0	4	29	5	0	16	38	18	0
7:30 AM	11	39	6	0	8	32	1	0	3	35	6	0	9	46	19	0
7:45 AM	10	14	2	0	3	25	1	0	2	10	3	0	3	32	9	0
8:00 AM	13	13	1	0	7	29	3	0	2	17	4	0	3	34	5	0
8:15 AM	18	16	1	0	7	28	1	0	3	26	5	0	6	43	9	0
8:30 AM	13	16	7	0	6	44	2	0	5	19	5	0	10	49	10	0
8:45 AM	11	14	6	0	13	36	0	0	4	13	11	0	10	54	11	0
9:00 AM	13	14	9	0	10	51	2	0	2	19	8	0	4	45	8	0
9:15 AM	13	19	8	0	2	47	5	0	3	17	4	0	10	52	9	0
9:30 AM	11	19	4	0	6	49	1	0	3	12	5	0	5	55	12	0
9:45 AM	13	14	5	0	7	42	0	0	6	20	9	0	7	48	8	0
10:00 AM	16	19	4	0	5	45	3	0	4	17	3	0	5	63	11	0
10:15 AM	23	19	6	0	10	55	3	0	5	17	5	0	9	55	9	0
10:30 AM	17	19	4	0	3	59	0	0	5	10	7	0	8	64	9	0
10:45 AM	28	25	5	0	8	48	2	0	3	15	9	0	7	53	11	0
11:00 AM	17	15	6	0	5	54	2	0	3	13	10	0	7	61	10	0
11:15 AM	18	29	4	0	7	53	5	0	8	25	13	0	9	59	14	0
11:30 AM	32	24	11	0	12	51	3	0	5	14	9	0	13	71	21	0
11:45 AM	30	17	9	0	3	70	2	0	7	8	4	0	12	57	11	0
12:00 PM	19	17	3	0	7	48	3	0	2	13	6	0	9	74	8	0
12:15 PM	14	22	7	0	4	61	1	0	9	17	10	0	13	75	24	0
12:30 PM	21	22	3	0	11	61	5	0	1	17	7	0	15	74	17	0
12:45 PM	17	18	12	0	6	56	2	0	3	24	8	0	6	60	16	0
1:00 PM	23	16	14	0	3	63	1	0	2	34	6	0	6	49	10	0
1:15 PM	17	24	6	0	8	50	1	0	3	14	10	0	7	60	12	0
1:30 PM	21	25	5	0	3	55	1	0	3	27	7	0	10	57	12	0
1:45 PM	25	33	9	0	3	64	3	0	1	17	4	0	8	50	11	0
2:00 PM	15	36	19	0	10	58	0	0	7	18	9	1	4	72	13	0
2:15 PM	26	33	7	0	4	50	2	0	4	29	4	0	9	64	17	0
2:30 PM	22	25	12	0	5	43	0	0	9	20	6	0	11	65	15	0
2:45 PM	15	33	8	0	5	55	4	0	4	22	10	0	5	67	13	0
3:00 PM	21	26	9	0	2	50	4	0	9	15	4	0	12	68	15	0
3:15 PM	18	43	7	0	0	43	0	0	4	23	13	0	5	64	17	0
3:30 PM	20	38	7	0	2	51	2	0	7	24	10	0	12	68	13	0
3:45 PM	20	33	18	0	8	56	3	0	8	15	16	0	3	74	16	0
4:00 PM	21	40	13	0	2	65	3	0	2	23	16	0	2	79	11	0
4:15 PM	28	37	10	0	3	65	1	0	1	23	8	0	6	80	9	0
4:30 PM	20	34	10	0	3	66	3	0	5	32	7	0	6	76	19	0
4:45 PM	20	33	7	0	7	47	3	0	4	25	9	0	6	66	25	0
5:00 PM	14	38	9	0	7	38	1	0	0	19	8	0	8	75	15	0
5:15 PM	21	32	8	0	6	42	1	0	1	15	11	0	8	50	18	0
5:30 PM	24	15	7	0	3	53	0	0	2	14	6	0	6	67	10	0
5:45 PM	24	23	5	0	4	34	2	0	0	17	4	0	6	46	8	0
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0

Study Name **Location 77 4th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Washington St Westbound				4th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0
6:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
6:45 AM	1	1	0	0	0	3	0	0	0	0	1	0	0	0	0	0
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
7:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	2	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	2	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	1	0	0	1	0	0	0	1	1	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	1	1	0	0
9:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0
9:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	3	1	0
9:45 AM	1	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0
10:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
10:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0
10:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
10:45 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0
11:00 AM	0	3	0	0	0	1	0	0	1	3	0	0	0	3	0	0
11:15 AM	0	2	0	0	0	3	0	0	0	1	0	0	0	1	0	0
11:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
11:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0
12:15 PM	1	1	0	0	0	2	0	0	0	0	0	0	0	3	0	0
12:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
12:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0
1:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
1:15 PM	0	0	0	0	1	2	0	0	1	0	0	0	0	2	1	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0
1:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
2:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
2:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
2:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
2:45 PM	0	2	0	0	0	1	0	0	0	0	0	0	1	0	0	0
3:00 PM	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0
3:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	0
3:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
3:45 PM	0	0	1	0	1	2	0	0	0	0	0	0	0	1	0	0
4:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	2	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0
4:45 PM	1	1	0	0	0	2	0	0	0	0	0	0	0	2	0	0
5:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
5:15 PM	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0
5:45 PM	1	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 77 4th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Washington St Westbound				4th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 AM	2	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
2:30 PM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 77 4th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Crossing North Leg	Washington St Crossing East Leg	4th St Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	1	0
6:15 AM	2	0	0	0
6:30 AM	0	1	0	0
6:45 AM	1	2	1	1
7:00 AM	2	3	0	1
7:15 AM	1	2	1	1
7:30 AM	0	0	1	0
7:45 AM	1	0	1	2
8:00 AM	1	2	4	0
8:15 AM	0	5	2	1
8:30 AM	0	1	5	2
8:45 AM	0	0	2	0
9:00 AM	1	1	0	1
9:15 AM	1	1	0	1
9:30 AM	0	0	2	0
9:45 AM	1	0	3	0
10:00 AM	1	0	5	0
10:15 AM	0	0	1	0
10:30 AM	0	0	5	0
10:45 AM	1	3	1	0
11:00 AM	3	1	1	0
11:15 AM	0	1	4	1
11:30 AM	1	1	3	1
11:45 AM	2	1	2	1
12:00 PM	0	3	5	1
12:15 PM	3	1	8	0
12:30 PM	3	1	3	0
12:45 PM	4	2	4	2
1:00 PM	5	1	5	0
1:15 PM	4	3	0	0
1:30 PM	0	1	7	0
1:45 PM	2	4	3	0
2:00 PM	3	0	5	0
2:15 PM	2	0	7	1
2:30 PM	0	1	3	0
2:45 PM	3	2	5	0
3:00 PM	0	0	4	0
3:15 PM	0	1	7	3
3:30 PM	0	0	1	1
3:45 PM	6	0	7	2
4:00 PM	2	0	3	2
4:15 PM	3	1	2	1
4:30 PM	1	4	1	0
4:45 PM	2	0	4	1
5:00 PM	0	1	2	0
5:15 PM	2	1	1	1
5:30 PM	2	0	0	0
5:45 PM	1	2	0	0
6:00 PM	0	2	0	0

Study Name **Location 77 4th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	4th St Southbound				Washington St Westbound				4th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	5	0	0	10	10	1	0	0	8	1	0	1	14	8	0
6:15 AM	6	8	3	0	10	11	1	0	0	33	2	0	2	15	8	0
6:30 AM	7	7	0	0	10	22	1	0	1	16	3	0	1	20	11	0
6:45 AM	6	13	2	0	4	24	0	0	1	27	3	0	2	27	6	0
7:00 AM	4	31	4	0	8	27	0	0	5	19	4	0	7	30	9	0
7:15 AM	8	34	6	0	7	23	4	0	4	29	6	0	16	39	18	0
7:30 AM	11	41	6	0	8	34	1	0	3	36	6	0	9	49	20	0
7:45 AM	10	14	2	0	3	25	1	0	2	11	3	0	3	33	9	0
8:00 AM	13	14	1	0	7	30	3	0	2	17	4	0	4	36	5	0
8:15 AM	18	17	1	0	8	28	1	0	3	26	5	0	6	44	10	0
8:30 AM	13	16	7	0	6	45	2	0	6	19	5	0	11	50	10	0
8:45 AM	11	15	6	0	13	36	0	0	4	13	11	0	10	54	11	0
9:00 AM	13	16	9	0	10	53	2	0	2	19	8	0	5	46	8	0
9:15 AM	13	19	8	0	2	48	5	0	4	17	4	0	10	52	10	0
9:30 AM	11	19	5	0	6	51	1	0	3	12	5	0	5	58	13	0
9:45 AM	14	15	5	0	7	43	0	0	6	20	9	0	7	49	9	0
10:00 AM	16	19	4	0	5	47	3	0	4	17	3	0	5	65	11	0
10:15 AM	23	19	6	0	10	56	3	0	5	17	5	0	9	57	10	0
10:30 AM	17	19	4	0	3	61	0	0	5	10	7	0	8	68	9	0
10:45 AM	28	25	6	0	8	50	2	0	3	15	9	0	7	53	12	0
11:00 AM	17	18	6	0	5	55	2	0	4	16	10	0	7	64	10	0
11:15 AM	18	31	4	0	7	56	5	0	8	26	13	0	9	60	14	0
11:30 AM	33	24	11	0	12	51	3	0	5	14	9	0	13	72	23	0
11:45 AM	30	17	9	0	3	72	2	0	7	8	4	0	12	59	11	0
12:00 PM	19	17	3	0	7	49	3	0	2	13	7	0	9	76	9	0
12:15 PM	15	23	7	0	4	63	1	0	9	17	10	0	13	78	24	0
12:30 PM	21	23	4	0	11	61	5	0	1	17	7	0	15	76	17	0
12:45 PM	17	18	12	0	6	57	2	0	3	24	9	0	6	62	16	0
1:00 PM	24	16	14	0	3	65	1	0	2	34	6	0	6	51	10	0
1:15 PM	17	24	6	0	9	52	1	0	4	14	10	0	7	62	13	0
1:30 PM	21	26	5	0	3	55	1	0	3	27	8	0	10	58	12	0
1:45 PM	26	34	9	0	3	66	3	0	1	17	4	0	8	51	11	0
2:00 PM	15	38	19	0	10	60	0	0	7	18	9	1	4	73	13	0
2:15 PM	26	34	7	0	5	53	2	0	4	29	4	0	9	66	17	0
2:30 PM	23	25	12	0	5	45	0	0	9	22	6	0	11	68	15	0
2:45 PM	15	35	8	0	5	56	4	0	4	22	10	0	6	68	13	0
3:00 PM	22	27	9	0	2	50	5	0	10	15	4	0	12	69	15	0
3:15 PM	18	43	7	0	0	44	0	0	5	23	13	0	5	67	17	0
3:30 PM	20	38	8	0	2	52	2	0	7	24	10	0	12	69	13	0
3:45 PM	20	34	19	0	9	58	3	0	8	15	16	0	3	76	16	0
4:00 PM	21	41	13	0	2	67	3	0	2	23	16	0	2	81	12	0
4:15 PM	28	37	10	0	3	65	1	0	1	25	8	0	6	80	9	0
4:30 PM	20	35	11	0	3	66	3	0	5	33	7	0	6	77	19	0
4:45 PM	21	34	7	0	7	49	3	0	4	25	9	0	6	68	25	0
5:00 PM	15	38	9	0	7	39	1	0	0	19	8	0	8	76	15	0
5:15 PM	22	32	8	0	6	42	1	0	1	15	12	0	8	51	18	0
5:30 PM	24	16	7	0	3	54	0	0	2	14	6	0	6	69	10	0
5:45 PM	25	23	5	0	4	36	2	0	0	17	5	0	6	46	8	0
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0

Study Name **Location 78 3rd St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Washington St Westbound				3rd St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	10	5	1	0	1	8	0	0	0	2	2	0	1	3	1	0
6:15 AM	5	1	0	0	4	12	0	0	1	8	3	0	1	2	4	0
6:30 AM	2	8	2	0	5	8	0	0	0	15	2	0	5	7	5	0
6:45 AM	7	10	2	0	5	15	0	0	1	18	8	0	3	6	10	0
7:00 AM	7	11	0	0	7	15	0	0	1	15	2	0	3	4	6	0
7:15 AM	14	18	3	0	5	14	0	0	2	23	1	0	6	20	11	0
7:30 AM	15	25	4	0	5	20	0	0	0	37	4	0	10	18	13	0
7:45 AM	13	24	6	0	5	21	0	0	2	29	6	0	15	24	14	0
8:00 AM	10	17	2	0	8	18	0	0	0	18	8	0	6	20	13	0
8:15 AM	12	12	2	0	4	15	1	0	2	23	2	0	11	14	15	0
8:30 AM	17	14	4	0	7	19	2	0	3	29	7	0	6	23	11	0
8:45 AM	18	22	6	0	2	22	0	0	1	40	3	0	11	33	9	0
9:00 AM	21	23	3	0	6	17	0	0	2	24	12	0	7	28	18	0
9:15 AM	23	13	4	0	4	22	2	0	3	17	12	0	12	27	14	0
9:30 AM	27	21	3	0	4	23	2	0	5	27	7	0	6	26	20	0
9:45 AM	25	21	4	0	4	24	1	0	1	31	9	0	13	30	16	0
10:00 AM	21	21	2	0	2	27	1	0	2	22	10	0	7	25	23	0
10:15 AM	21	18	5	0	4	21	0	0	3	28	8	0	14	31	24	0
10:30 AM	27	25	5	0	6	23	2	0	3	23	15	0	13	32	28	0
10:45 AM	23	24	8	0	4	24	1	0	6	21	13	0	19	37	18	0
11:00 AM	21	20	5	0	5	25	1	0	2	16	13	0	8	28	19	0
11:15 AM	29	29	3	0	11	26	3	0	2	31	13	0	16	25	25	0
11:30 AM	31	20	6	0	12	24	5	0	6	30	10	0	16	25	20	0
11:45 AM	20	33	5	1	12	31	0	0	10	23	11	0	10	37	29	0
12:00 PM	29	27	9	0	8	38	0	0	9	32	13	0	14	46	26	0
12:15 PM	30	20	11	0	8	25	2	0	9	28	6	0	14	37	31	0
12:30 PM	19	23	3	0	11	27	4	0	4	25	18	0	17	36	29	0
12:45 PM	34	33	11	0	8	36	2	0	8	36	7	0	18	34	18	0
1:00 PM	28	26	4	0	3	31	0	0	5	33	13	0	13	35	24	0
1:15 PM	25	25	5	0	7	30	4	0	1	33	9	0	18	30	19	0
1:30 PM	18	33	3	0	2	27	0	0	4	16	13	0	14	30	22	0
1:45 PM	27	26	3	0	3	25	0	0	1	26	9	0	14	33	23	0
2:00 PM	24	29	5	0	1	26	0	0	5	20	21	0	15	26	12	0
2:15 PM	28	34	3	0	7	25	0	0	4	30	10	0	13	32	27	0
2:30 PM	26	24	10	0	7	28	1	0	3	21	7	0	13	44	24	0
2:45 PM	22	30	2	0	4	22	4	0	3	35	11	0	14	38	26	0
3:00 PM	26	33	11	0	4	21	1	0	3	26	6	0	9	38	28	0
3:15 PM	28	23	7	0	8	27	1	0	5	23	12	0	23	40	22	0
3:30 PM	23	31	6	0	3	11	4	0	1	42	7	0	24	28	22	0
3:45 PM	28	59	4	0	2	16	5	0	4	46	11	0	17	42	21	0
4:00 PM	17	41	8	0	6	24	0	0	11	27	18	0	9	55	23	0
4:15 PM	30	34	13	0	2	26	1	0	3	37	15	0	20	42	25	0
4:30 PM	27	43	9	0	7	27	1	0	3	41	11	0	17	48	32	0
4:45 PM	34	42	8	0	10	27	2	0	6	48	15	0	11	51	30	0
5:00 PM	24	37	2	0	7	33	4	0	3	42	8	0	16	39	30	0
5:15 PM	22	33	8	0	8	18	1	0	6	41	11	0	12	36	29	0
5:30 PM	19	32	2	0	8	24	2	0	8	37	6	0	11	42	18	0
5:45 PM	24	34	10	0	6	19	1	0	6	27	9	0	18	30	17	0

Study Name **Location 78 3rd St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Washington St Westbound				3rd St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
6:45 AM	1	1	0	0	0	1	0	0	0	0	0	0	2	0	0	0
7:00 AM	1	0	0	0	0	2	0	0	0	1	2	0	1	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0
7:30 AM	0	0	1	0	0	1	0	0	0	3	0	0	0	0	0	0
7:45 AM	0	3	0	0	0	0	0	0	0	1	0	0	1	1	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	2	1	0	0	0	1	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	2	0
8:30 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	2	1	0	1	1	0	0
9:15 AM	1	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
9:30 AM	1	0	1	0	0	0	0	0	0	3	1	0	1	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	2	1	0	0
10:00 AM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	1	0
10:15 AM	0	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0
10:30 AM	1	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0
10:45 AM	0	2	0	0	0	3	0	0	0	1	0	0	1	1	1	0
11:00 AM	0	1	0	0	0	1	0	0	0	2	1	0	0	1	0	0
11:15 AM	0	2	1	0	1	0	1	0	0	0	0	0	1	0	1	0
11:30 AM	1	2	0	0	0	0	0	0	1	2	2	0	0	1	0	0
11:45 AM	0	2	0	0	0	0	0	0	0	2	1	0	1	0	0	0
12:00 PM	0	0	0	0	1	1	0	0	0	2	1	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
12:30 PM	1	1	0	0	0	0	1	0	1	3	1	0	0	0	1	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
1:00 PM	0	1	0	0	0	0	0	0	1	1	0	0	1	0	2	0
1:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	2	0	1	0
1:45 PM	1	1	0	0	0	1	0	0	0	2	0	0	0	0	1	0
2:00 PM	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0
2:15 PM	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0	0
2:30 PM	0	2	0	0	0	1	0	0	0	1	1	0	0	1	0	0
2:45 PM	1	1	0	0	0	1	0	0	1	0	0	0	1	1	2	0
3:00 PM	0	2	1	0	1	1	0	0	0	1	1	0	1	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	1	1	0	1	2	1	0
3:45 PM	0	0	0	0	0	0	0	0	1	3	0	0	1	1	0	0
4:00 PM	0	2	0	0	0	0	0	0	1	0	2	0	0	2	1	0
4:15 PM	0	4	0	0	0	1	0	0	0	2	0	0	0	1	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	1	0	0	0	0	0	0	0	0	1	0	0	2	0	0
5:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

Study Name **Location 78 3rd St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Washington St Westbound				3rd St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0	0
7:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
11:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location 78.xls

Study Name **Location 78 3rd St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Crossing North Leg	Washington St Crossing East Leg	3rd St Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	1	1
6:15 AM	0	0	0	0
6:30 AM	1	1	1	1
6:45 AM	0	0	0	0
7:00 AM	0	2	0	1
7:15 AM	0	2	0	0
7:30 AM	0	2	0	2
7:45 AM	0	5	1	2
8:00 AM	1	2	0	1
8:15 AM	2	5	0	3
8:30 AM	1	0	0	2
8:45 AM	2	2	4	3
9:00 AM	2	5	7	2
9:15 AM	5	3	3	6
9:30 AM	3	1	5	3
9:45 AM	4	6	2	0
10:00 AM	12	4	1	3
10:15 AM	6	3	3	3
10:30 AM	6	0	4	4
10:45 AM	9	7	6	2
11:00 AM	9	5	8	3
11:15 AM	8	4	4	6
11:30 AM	7	1	11	5
11:45 AM	2	4	7	8
12:00 PM	3	6	5	2
12:15 PM	5	5	6	3
12:30 PM	14	7	4	8
12:45 PM	7	9	9	4
1:00 PM	9	9	5	3
1:15 PM	12	8	10	8
1:30 PM	8	6	7	2
1:45 PM	3	3	3	2
2:00 PM	12	7	2	2
2:15 PM	6	3	2	5
2:30 PM	5	1	8	5
2:45 PM	1	7	10	9
3:00 PM	9	3	10	2
3:15 PM	3	4	5	2
3:30 PM	4	6	20	2
3:45 PM	5	6	19	2
4:00 PM	5	5	4	4
4:15 PM	7	5	10	8
4:30 PM	6	6	2	5
4:45 PM	4	5	5	4
5:00 PM	3	4	6	2
5:15 PM	2	3	11	1
5:30 PM	3	4	9	0
5:45 PM	2	2	3	1

Study Name **Location 78 3rd St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	3rd St Southbound				Washington St Westbound				3rd St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	11	5	1	0	1	8	0	0	0	2	2	0	3	3	1	0
6:15 AM	5	1	0	0	4	12	0	0	1	8	3	0	2	3	4	0
6:30 AM	3	8	2	0	5	8	0	0	0	17	2	0	5	7	6	0
6:45 AM	8	12	2	0	5	16	0	0	1	19	9	0	5	7	10	0
7:00 AM	9	11	0	0	7	18	0	0	1	16	4	0	4	4	6	0
7:15 AM	14	19	3	0	5	14	0	0	2	23	1	0	7	21	11	0
7:30 AM	15	25	5	0	5	21	0	0	0	40	4	0	10	18	13	0
7:45 AM	13	27	6	0	5	21	0	0	2	31	6	0	16	25	15	0
8:00 AM	10	18	2	0	8	18	0	0	0	20	9	0	6	20	14	0
8:15 AM	12	13	2	0	4	15	1	0	2	24	2	0	12	14	17	0
8:30 AM	17	14	4	0	7	20	2	0	3	30	8	0	6	23	11	0
8:45 AM	18	24	6	0	2	22	0	0	2	40	3	0	11	34	9	0
9:00 AM	21	24	3	0	6	17	0	0	2	29	13	0	8	29	18	0
9:15 AM	24	14	4	0	4	22	2	0	3	18	12	0	13	27	14	0
9:30 AM	28	21	4	0	4	23	2	0	5	30	8	0	7	26	20	0
9:45 AM	26	23	4	0	4	24	1	0	1	32	9	0	15	31	16	0
10:00 AM	21	23	2	0	2	27	1	0	2	23	11	0	7	25	24	0
10:15 AM	21	19	5	0	4	21	0	0	3	28	9	0	15	32	24	0
10:30 AM	28	26	5	0	6	24	2	0	3	24	16	0	13	33	28	0
10:45 AM	23	26	8	0	4	27	1	0	6	22	13	0	20	38	19	0
11:00 AM	21	21	5	0	5	26	1	0	2	18	14	0	8	31	19	0
11:15 AM	29	31	4	0	12	26	4	0	3	31	13	0	17	25	26	0
11:30 AM	32	22	6	0	12	24	5	0	7	32	12	0	16	26	20	0
11:45 AM	20	35	5	1	12	31	0	0	10	25	12	0	11	37	29	0
12:00 PM	29	27	9	0	9	39	0	0	9	34	14	0	15	46	26	0
12:15 PM	31	20	11	0	8	25	2	0	9	28	6	0	14	37	33	0
12:30 PM	20	24	3	0	11	27	5	0	5	28	19	0	18	36	30	0
12:45 PM	34	33	11	0	8	36	2	0	8	36	7	0	18	34	20	0
1:00 PM	28	27	4	0	3	31	0	0	6	34	13	0	14	35	27	0
1:15 PM	25	25	5	0	7	32	4	0	1	34	9	0	18	30	19	0
1:30 PM	18	34	3	0	2	27	0	0	4	17	14	0	16	30	23	0
1:45 PM	28	27	3	0	3	26	0	0	1	28	9	0	14	33	24	0
2:00 PM	25	29	6	0	1	26	0	0	5	21	21	0	16	26	12	0
2:15 PM	28	35	3	0	7	26	0	0	4	31	11	0	13	33	27	0
2:30 PM	27	28	10	0	7	29	1	0	3	22	8	0	13	45	24	0
2:45 PM	23	31	2	0	4	24	4	0	4	36	11	0	15	39	28	0
3:00 PM	26	35	12	0	5	22	1	0	3	27	7	0	10	38	28	0
3:15 PM	28	25	7	0	8	27	1	0	5	23	12	0	23	41	22	0
3:30 PM	23	32	6	0	3	11	4	0	1	43	8	0	26	30	23	0
3:45 PM	28	59	4	0	2	17	5	0	5	50	11	0	18	43	21	0
4:00 PM	17	43	8	0	6	24	0	0	12	28	20	0	9	57	24	0
4:15 PM	30	38	13	0	2	27	1	0	3	39	15	0	20	43	25	0
4:30 PM	27	44	9	0	7	27	1	0	3	42	12	0	18	49	32	0
4:45 PM	34	42	8	0	10	27	2	0	6	48	15	0	11	51	30	0
5:00 PM	25	39	2	0	7	33	4	0	3	42	9	0	16	41	30	0
5:15 PM	22	35	8	0	8	18	1	0	6	42	11	0	13	36	29	0
5:30 PM	19	32	2	0	8	24	2	0	8	38	7	0	11	43	19	0
5:45 PM	24	34	10	0	6	19	1	0	6	27	9	0	19	30	17	0

Study Name **Location 79 Front St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Washington St Westbound				Front St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	9	0	0	0	0	0	0	0	20	8	0	2	0	1	0
6:15 AM	0	7	0	0	0	0	0	0	0	14	17	0	2	1	0	0
6:30 AM	1	10	0	0	0	0	0	0	0	28	8	0	4	4	0	0
6:45 AM	1	23	0	0	0	0	0	0	0	39	22	0	5	3	2	0
7:00 AM	3	21	0	0	0	0	0	0	0	33	21	0	1	0	1	0
7:15 AM	1	27	0	0	0	0	0	0	2	38	19	0	12	4	4	0
7:30 AM	6	34	0	0	0	0	0	0	1	49	19	0	12	7	5	0
7:45 AM	8	45	0	0	0	0	0	0	0	67	19	0	15	7	5	0
8:00 AM	6	27	0	0	0	0	0	0	1	38	18	0	7	4	10	0
8:15 AM	6	26	0	0	0	0	0	0	0	35	13	0	6	3	10	0
8:30 AM	6	26	0	0	0	0	0	0	2	37	22	0	9	9	12	0
8:45 AM	5	38	0	0	0	0	0	0	1	57	18	0	17	10	10	0
9:00 AM	1	23	0	0	0	0	0	0	3	47	26	0	19	5	5	0
9:15 AM	4	27	0	0	0	0	0	0	1	29	26	0	23	6	9	0
9:30 AM	2	22	0	0	0	0	0	0	0	43	25	0	9	5	11	0
9:45 AM	11	35	0	0	0	0	0	0	2	44	20	0	19	3	13	0
10:00 AM	10	34	0	0	0	0	0	0	5	32	19	0	18	2	9	0
10:15 AM	2	24	0	0	0	0	0	0	0	32	20	0	21	6	14	0
10:30 AM	14	37	0	0	0	0	0	0	1	41	17	0	21	7	15	0
10:45 AM	9	32	0	0	0	0	0	0	1	37	19	0	24	9	9	0
11:00 AM	5	39	0	0	0	0	0	0	2	33	20	0	22	6	14	0
11:15 AM	9	26	0	0	0	0	0	0	2	36	31	0	31	2	4	0
11:30 AM	12	43	0	0	0	0	0	0	1	34	26	0	19	6	7	0
11:45 AM	19	33	0	0	0	0	0	0	1	33	29	0	14	10	21	0
12:00 PM	16	38	0	0	0	0	0	0	2	44	27	0	30	5	24	0
12:15 PM	14	42	0	0	0	0	0	0	1	30	26	0	32	11	12	0
12:30 PM	13	31	0	0	0	0	0	0	0	38	24	0	29	12	9	0
12:45 PM	16	39	0	0	0	0	0	0	2	34	30	0	29	9	13	0
1:00 PM	19	37	0	0	0	0	0	0	3	30	16	0	29	7	10	0
1:15 PM	11	32	0	0	0	0	0	0	1	29	26	0	24	4	12	0
1:30 PM	15	37	0	0	0	0	0	0	6	35	19	0	25	6	9	0
1:45 PM	9	46	0	0	0	0	0	0	2	29	15	0	21	5	9	0
2:00 PM	9	29	0	0	0	0	0	0	2	37	17	0	23	6	5	0
2:15 PM	8	40	0	0	0	0	0	0	1	32	26	0	20	6	11	0
2:30 PM	17	44	0	0	0	0	0	0	4	33	18	0	33	2	14	0
2:45 PM	12	36	0	0	0	0	0	0	3	31	19	0	28	10	10	0
3:00 PM	7	41	0	0	0	0	0	0	2	29	19	0	36	7	11	0
3:15 PM	8	28	0	0	0	0	0	0	1	44	24	0	36	5	15	0
3:30 PM	12	35	0	0	0	0	0	0	2	21	6	0	29	4	9	0
3:45 PM	8	6	6	0	0	0	0	0	1	11	3	0	11	11	17	0
4:00 PM	12	51	0	0	0	0	0	0	0	48	19	0	32	9	27	0
4:15 PM	17	56	0	0	0	0	0	0	1	64	13	0	38	4	20	0
4:30 PM	15	55	0	0	0	0	0	0	0	48	18	0	33	9	19	0
4:45 PM	11	45	0	0	0	0	0	0	1	54	27	0	37	6	19	0
5:00 PM	17	58	0	0	0	0	0	0	1	62	27	0	31	3	13	0
5:15 PM	10	56	0	0	0	0	0	0	0	50	15	0	21	12	14	0
5:30 PM	11	41	0	0	0	0	0	0	1	62	25	0	30	6	20	0
5:45 PM	8	43	0	0	0	0	0	0	1	64	15	0	31	6	11	0

Study Name **Location 79 Front St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Washington St Westbound				Front St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	1	1	0	0	0	0	0	0	3	5	2	0	0	0	0	0
7:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:30 AM	1	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	5	1	0	1	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
11:30 AM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0
12:15 PM	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0
1:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	1	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0
2:30 PM	0	3	0	0	0	0	0	0	0	0	1	0	0	1	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3:00 PM	1	1	0	0	0	0	0	0	0	2	1	0	1	1	0	0
3:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	3	0	0	0
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0

	Front St Southbound				Washington St Westbound				Front St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
	8	32	0	0	0	0	0	0	4	39	15	0	22	5	7	1
East Leg	4															
West Leg	29															
North Leg	39															
South Leg	61															

Study Name **Location 79 Front St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Washington St Westbound				Front St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	1	0
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:45 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 79 Front St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Washington St Crossing East Leg	Front St Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	1	0	2
6:30 AM	0	0	0	2
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	1	0	1
7:30 AM	0	0	0	0
7:45 AM	0	0	1	1
8:00 AM	0	0	0	1
8:15 AM	1	1	0	0
8:30 AM	1	0	1	1
8:45 AM	3	3	1	2
9:00 AM	1	1	2	0
9:15 AM	0	1	1	0
9:30 AM	2	0	2	2
9:45 AM	1	1	2	2
10:00 AM	3	0	2	5
10:15 AM	3	0	2	1
10:30 AM	1	3	1	1
10:45 AM	1	1	1	0
11:00 AM	0	2	1	0
11:15 AM	3	4	1	2
11:30 AM	1	2	2	0
11:45 AM	1	3	3	2
12:00 PM	2	5	2	1
12:15 PM	4	4	4	0
12:30 PM	0	3	3	2
12:45 PM	0	3	5	2
1:00 PM	4	5	4	7
1:15 PM	1	9	4	2
1:30 PM	2	2	1	2
1:45 PM	3	2	1	3
2:00 PM	4	4	4	5
2:15 PM	1	1	1	3
2:30 PM	3	4	1	3
2:45 PM	0	3	0	2
3:00 PM	0	1	0	0
3:15 PM	0	1	5	3
3:30 PM	0	0	1	2
3:45 PM	0	3	0	2
4:00 PM	0	0	0	1
4:15 PM	2	0	5	3
4:30 PM	0	1	1	2
4:45 PM	6	1	1	3
5:00 PM	2	2	0	5
5:15 PM	0	1	2	4
5:30 PM	1	2	0	2
5:45 PM	1	3	2	1

Study Name **Location 79 Front St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Washington St Westbound				Front St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	9	0	0	0	0	0	0	0	21	8	0	2	0	1	0
6:15 AM	0	8	0	0	0	0	0	0	0	14	17	0	3	1	0	0
6:30 AM	1	10	0	0	0	0	0	0	0	29	8	0	4	4	0	0
6:45 AM	1	24	0	0	0	0	0	0	0	42	22	0	5	3	3	0
7:00 AM	5	22	0	0	0	0	0	0	3	38	23	0	1	0	1	0
7:15 AM	1	30	0	0	0	0	0	0	2	39	19	0	12	4	5	0
7:30 AM	7	35	0	0	0	0	0	0	1	50	19	0	13	7	5	0
7:45 AM	8	46	0	0	0	0	0	0	0	67	19	0	16	7	5	0
8:00 AM	6	28	0	0	0	0	0	0	1	38	18	0	7	4	10	0
8:15 AM	7	26	0	0	0	0	0	0	0	36	13	0	6	3	10	0
8:30 AM	6	27	0	0	0	0	0	0	2	37	23	0	9	9	12	0
8:45 AM	5	39	0	0	0	0	0	0	1	57	18	0	17	11	10	0
9:00 AM	1	23	0	0	0	0	0	0	3	49	26	0	19	5	6	0
9:15 AM	4	27	0	0	0	0	0	0	1	30	26	0	24	6	9	0
9:30 AM	2	23	0	0	0	0	0	0	0	45	25	0	9	5	11	0
9:45 AM	11	35	0	0	0	0	0	0	2	46	20	0	21	3	13	0
10:00 AM	10	34	0	0	0	0	0	0	5	34	19	0	18	2	9	0
10:15 AM	2	26	0	0	0	0	0	0	0	33	20	0	21	6	14	0
10:30 AM	14	37	0	0	0	0	0	0	1	46	18	0	23	7	15	0
10:45 AM	9	36	0	0	0	0	0	0	1	37	20	0	25	9	9	0
11:00 AM	5	40	0	0	0	0	0	0	2	33	22	0	23	6	15	0
11:15 AM	9	26	0	0	0	0	0	0	2	36	32	0	32	2	5	0
11:30 AM	12	45	0	0	0	0	0	0	1	34	27	0	19	6	8	0
11:45 AM	19	33	0	0	0	0	0	0	1	35	29	0	15	10	21	0
12:00 PM	16	38	0	0	0	0	0	0	3	45	29	0	30	5	24	0
12:15 PM	15	44	0	0	0	0	0	0	1	31	26	0	32	11	12	0
12:30 PM	13	31	0	0	0	0	0	0	0	38	24	0	29	12	9	0
12:45 PM	16	41	0	0	0	0	0	0	2	35	30	0	30	9	13	0
1:00 PM	19	39	0	0	0	0	0	0	3	30	16	0	29	7	10	0
1:15 PM	12	34	0	0	0	0	0	0	1	30	27	0	24	5	12	0
1:30 PM	15	38	0	0	0	0	0	0	6	35	20	0	25	6	9	0
1:45 PM	9	46	0	0	0	0	0	0	2	29	15	0	22	5	9	0
2:00 PM	9	30	0	0	0	0	0	0	2	38	17	0	23	6	5	0
2:15 PM	8	40	0	0	0	0	0	0	1	33	27	0	21	7	11	0
2:30 PM	17	47	0	0	0	0	0	0	4	33	19	0	33	3	14	0
2:45 PM	12	37	0	0	0	0	0	0	3	31	20	0	29	10	10	1
3:00 PM	8	42	0	0	0	0	0	0	2	31	20	0	37	8	11	0
3:15 PM	9	28	0	0	0	0	0	0	1	44	24	0	37	5	15	0
3:30 PM	12	35	0	0	0	0	0	0	2	21	6	0	29	4	10	0
3:45 PM	8	7	6	0	0	0	0	0	1	11	4	0	11	11	19	0
4:00 PM	12	52	0	0	0	0	0	0	0	50	19	0	35	9	27	0
4:15 PM	18	56	0	0	0	0	0	0	1	64	13	0	38	5	21	0
4:30 PM	15	56	0	0	0	0	0	0	0	48	18	0	34	9	19	0
4:45 PM	11	45	0	0	0	0	0	0	1	55	27	0	37	6	19	0
5:00 PM	17	58	0	0	0	0	0	0	1	63	27	0	33	3	13	0
5:15 PM	10	56	0	0	0	0	0	0	0	50	15	0	21	12	14	0
5:30 PM	11	41	0	0	0	0	0	0	1	62	25	0	31	6	20	0
5:45 PM	8	43	0	0	0	0	0	0	1	66	15	0	31	6	11	0

Study Name **Location 80 Front St & Main St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Main St Westbound				Front St Northbound				Main St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	11	1	0	0	0	1	0	0	28	0	0	0	1	0	0
6:15 AM	1	10	0	0	1	1	1	0	0	27	2	0	1	0	0	0
6:30 AM	0	15	0	0	0	0	0	0	0	38	0	0	0	0	0	0
6:45 AM	0	25	2	0	1	1	0	0	2	59	2	0	2	0	1	0
7:00 AM	4	18	0	0	2	0	0	0	0	50	0	0	0	2	1	0
7:15 AM	1	31	4	0	0	0	1	0	0	58	2	0	0	1	0	0
7:30 AM	3	42	2	0	2	0	0	0	1	66	2	0	0	1	2	0
7:45 AM	3	55	1	0	0	1	1	0	0	89	11	0	2	1	0	0
8:00 AM	4	30	3	0	5	1	1	0	2	50	5	0	4	0	1	0
8:15 AM	1	31	0	0	0	0	0	0	2	51	6	0	2	0	1	0
8:30 AM	1	33	1	0	2	1	0	0	4	52	2	0	2	0	1	0
8:45 AM	3	49	0	0	3	2	1	0	0	73	5	0	2	1	2	0
9:00 AM	5	40	1	0	6	0	0	0	1	71	3	0	2	0	2	1
9:15 AM	5	35	3	0	4	1	1	0	1	48	5	0	6	1	1	1
9:30 AM	4	32	2	0	3	1	0	0	0	66	7	0	5	0	0	1
9:45 AM	6	44	2	0	1	0	1	0	3	64	7	0	8	0	0	0
10:00 AM	6	41	1	0	3	1	0	0	1	54	4	0	7	0	2	1
10:15 AM	4	37	3	0	0	0	1	0	0	48	3	0	2	1	2	1
10:30 AM	8	49	3	0	0	1	1	0	2	54	1	0	10	0	0	1
10:45 AM	6	45	4	0	5	1	1	0	1	52	5	0	8	1	1	0
11:00 AM	5	47	8	0	2	0	0	0	0	52	9	0	6	0	3	1
11:15 AM	6	51	3	0	7	0	1	0	3	58	5	0	8	0	2	1
11:30 AM	7	48	5	0	1	1	3	0	5	55	5	0	4	1	2	0
11:45 AM	11	41	1	0	5	0	1	0	2	54	6	0	6	1	3	0
12:00 PM	6	54	4	0	8	2	2	0	2	71	5	0	4	0	1	0
12:15 PM	15	52	6	0	4	2	1	0	3	50	4	0	6	2	2	1
12:30 PM	5	58	5	0	4	1	1	0	2	51	6	0	6	1	0	2
12:45 PM	2	56	3	0	6	1	0	0	2	63	5	0	8	1	1	0
1:00 PM	9	60	4	0	5	1	0	0	1	47	4	0	11	1	3	0
1:15 PM	5	44	7	0	1	2	2	0	2	43	12	0	9	1	2	0
1:30 PM	5	52	1	0	3	0	2	0	1	61	3	0	5	2	2	0
1:45 PM	9	56	3	0	2	0	0	0	2	36	5	0	3	1	5	0
2:00 PM	4	47	1	0	4	0	1	0	1	50	8	0	6	2	1	1
2:15 PM	2	54	3	0	5	1	1	0	4	56	3	0	6	1	2	0
2:30 PM	7	65	4	0	1	1	2	0	3	52	3	0	6	1	2	0
2:45 PM	6	55	5	0	4	0	1	0	0	41	7	0	9	5	5	0
3:00 PM	7	65	1	0	3	1	0	0	0	48	6	0	5	3	2	0
3:15 PM	9	54	3	0	4	1	1	0	0	53	7	0	3	1	4	0
3:30 PM	7	60	6	0	2	3	2	0	0	37	8	0	11	3	3	0
3:45 PM	4	7	0	0	1	3	1	0	12	10	22	0	9	11	0	1
4:00 PM	5	82	1	0	5	1	1	0	0	56	6	0	11	0	1	0
4:15 PM	6	75	4	0	1	0	1	0	2	71	7	0	4	0	5	0
4:30 PM	8	81	3	0	3	0	1	0	1	61	6	0	14	0	7	0
4:45 PM	7	73	2	0	11	3	0	0	4	68	3	0	10	0	0	0
5:00 PM	6	85	2	0	6	0	0	0	2	85	4	0	11	1	2	0
5:15 PM	9	67	3	0	1	1	1	0	1	66	0	0	8	1	1	0
5:30 PM	6	55	2	0	6	1	0	0	1	73	2	0	10	1	2	0
5:45 PM	7	63	5	0	1	0	0	0	2	80	4	0	4	0	1	0

Study Name **Location 80 Front St & Main St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Main St Westbound				Front St Northbound				Main St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:00 AM	0	1	0	0	2	0	0	0	0	5	3	0	1	3	0	0
7:15 AM	0	3	0	0	2	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0
11:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
12:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	1	0	1	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:00 PM	0	5	0	0	0	0	0	0	0	1	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	1	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0

Study Name **Location 80 Front St & Main St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Main St Westbound				Front St Northbound				Main St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	4	1	0	0	0	0	0	0	0	1	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 80 Front St & Main St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Crossing North Leg	Main St Crossing East Leg	Front St Crossing South Leg	Main St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	2	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	1	0	0	1
7:15 AM	0	1	1	1
7:30 AM	0	0	0	1
7:45 AM	2	1	0	3
8:00 AM	8	0	0	4
8:15 AM	1	0	0	0
8:30 AM	6	0	0	3
8:45 AM	6	0	0	5
9:00 AM	1	1	2	3
9:15 AM	0	1	0	0
9:30 AM	2	1	1	3
9:45 AM	2	1	2	4
10:00 AM	3	0	0	4
10:15 AM	0	1	8	3
10:30 AM	0	1	0	2
10:45 AM	5	1	0	12
11:00 AM	1	0	3	4
11:15 AM	7	2	1	8
11:30 AM	5	5	2	5
11:45 AM	3	3	2	8
12:00 PM	10	0	0	7
12:15 PM	6	0	0	8
12:30 PM	8	0	0	4
12:45 PM	0	0	0	5
1:00 PM	10	2	0	8
1:15 PM	9	1	0	9
1:30 PM	5	0	0	2
1:45 PM	4	1	3	5
2:00 PM	1	5	1	2
2:15 PM	1	0	1	3
2:30 PM	8	4	0	13
2:45 PM	4	3	1	6
3:00 PM	3	1	0	5
3:15 PM	2	3	3	3
3:30 PM	4	4	0	2
3:45 PM	6	0	1	6
4:00 PM	10	5	3	5
4:15 PM	0	1	4	5
4:30 PM	3	5	1	3
4:45 PM	1	2	1	5
5:00 PM	5	7	1	9
5:15 PM	5	1	0	10
5:30 PM	3	5	1	6
5:45 PM	7	1	1	5

Study Name **Location 80 Front St & Main St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound				Main St Westbound				Front St Northbound				Main St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	11	1	0	0	0	1	2	0	29	0	0	1	1	0	0
6:15 AM	1	12	0	0	1	1	1	0	0	27	2	0	1	0	0	0
6:30 AM	0	15	0	0	0	0	0	0	0	39	0	0	0	0	0	0
6:45 AM	0	25	3	0	1	1	0	0	2	62	2	0	2	1	1	0
7:00 AM	4	19	0	0	4	0	0	0	0	55	3	0	2	5	1	0
7:15 AM	1	34	4	0	2	0	1	0	0	59	2	0	0	1	0	0
7:30 AM	3	44	2	0	2	0	0	0	1	67	2	0	0	2	2	0
7:45 AM	3	57	1	0	0	1	1	0	0	89	11	0	2	1	0	0
8:00 AM	4	30	3	0	5	1	1	0	2	50	5	0	5	0	1	0
8:15 AM	1	32	0	0	0	0	0	0	2	52	6	0	2	0	1	0
8:30 AM	1	34	1	0	2	1	0	0	4	53	2	0	2	0	1	0
8:45 AM	3	50	0	0	3	2	1	0	0	73	5	0	2	1	2	0
9:00 AM	5	40	1	0	7	0	0	0	1	72	3	0	3	0	2	1
9:15 AM	6	35	3	0	4	1	1	0	1	49	5	0	6	1	1	1
9:30 AM	5	32	2	0	3	1	0	0	0	68	7	0	5	0	0	1
9:45 AM	6	46	2	0	1	0	1	0	3	65	7	0	8	0	0	0
10:00 AM	6	41	1	0	3	1	0	0	1	55	4	0	8	0	2	1
10:15 AM	4	39	3	0	0	0	1	0	0	50	3	0	2	1	2	1
10:30 AM	8	50	3	0	0	1	1	0	2	60	1	0	10	0	0	1
10:45 AM	6	50	5	0	5	1	1	0	1	53	6	0	8	1	1	0
11:00 AM	5	49	8	0	2	0	0	0	0	53	9	0	7	0	3	1
11:15 AM	6	53	3	0	7	0	1	0	3	60	5	0	8	0	2	1
11:30 AM	7	49	6	0	1	1	3	0	5	55	5	0	4	1	3	0
11:45 AM	11	42	1	0	5	0	1	0	2	55	6	0	6	1	4	0
12:00 PM	6	54	4	0	8	2	2	0	2	75	5	0	5	0	1	0
12:15 PM	15	52	6	0	4	2	1	0	3	50	4	0	6	2	2	1
12:30 PM	5	58	5	0	4	1	1	0	2	51	6	0	6	1	0	2
12:45 PM	2	56	4	0	6	1	0	0	2	64	5	0	8	1	1	0
1:00 PM	9	63	4	0	5	1	0	0	1	47	4	0	12	1	3	0
1:15 PM	5	46	7	0	1	2	2	0	2	45	12	0	9	1	2	0
1:30 PM	5	53	1	0	3	0	2	0	1	62	3	0	5	2	2	0
1:45 PM	9	56	3	0	2	0	0	0	2	36	5	0	3	1	5	0
2:00 PM	4	48	1	0	4	0	1	0	1	51	8	0	6	2	1	1
2:15 PM	2	55	3	0	6	1	1	0	4	57	3	0	7	1	2	0
2:30 PM	7	68	4	0	2	1	2	0	3	52	3	0	6	1	2	0
2:45 PM	6	56	5	0	4	0	1	0	0	42	7	0	9	5	5	0
3:00 PM	7	65	2	0	4	1	0	0	0	50	6	0	5	3	2	0
3:15 PM	9	56	3	0	4	1	1	0	0	53	7	0	3	1	4	0
3:30 PM	7	60	6	0	2	3	2	0	0	38	8	0	12	3	3	0
3:45 PM	5	7	0	0	1	3	1	0	12	10	23	0	9	11	0	1
4:00 PM	5	87	1	0	5	1	1	0	0	57	7	0	11	0	1	0
4:15 PM	6	75	4	0	1	0	1	0	3	71	7	0	4	0	5	0
4:30 PM	8	83	3	0	3	0	1	0	1	61	6	0	15	0	7	0
4:45 PM	7	73	2	0	11	3	0	0	4	69	3	0	10	0	0	0
5:00 PM	6	87	2	0	6	0	0	0	2	86	4	0	12	1	2	0
5:15 PM	9	67	3	0	1	1	1	0	1	66	0	0	8	1	1	0
5:30 PM	6	56	2	0	6	1	0	0	1	73	2	0	10	1	2	0
5:45 PM	7	63	5	0	1	0	0	0	2	82	4	0	4	0	1	0

Study Name **Location 81 Lakeshore Blvd & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound		Lakeshore Blvd Northbound		Washington St Eastbound	
Start Time	Thru	U-Turn	Thru	U-Turn	Right	Left
6:00 AM	7	0	6	0	0	0
6:15 AM	6	0	2	1	0	1
6:30 AM	5	0	14	0	1	1
6:45 AM	8	0	19	0	1	0
7:00 AM	10	0	18	0	2	0
7:15 AM	10	0	13	0	3	1
7:30 AM	15	0	18	0	3	4
7:45 AM	25	0	26	0	5	2
8:00 AM	19	0	24	0	1	6
8:15 AM	16	0	12	0	1	0
8:30 AM	14	0	22	0	4	3
8:45 AM	15	0	30	0	6	5
9:00 AM	16	0	13	0	4	4
9:15 AM	15	0	17	0	1	4
9:30 AM	16	0	21	0	4	4
9:45 AM	23	0	14	0	2	3
10:00 AM	20	0	12	0	1	2
10:15 AM	10	0	13	0	2	3
10:30 AM	15	0	12	0	4	5
10:45 AM	15	0	21	0	5	6
11:00 AM	17	0	24	0	3	5
11:15 AM	14	0	18	0	5	4
11:30 AM	22	0	24	0	4	4
11:45 AM	19	0	23	0	2	7
12:00 PM	20	0	14	0	5	2
12:15 PM	25	0	25	0	2	10
12:30 PM	24	0	23	0	5	10
12:45 PM	25	0	25	0	2	8
1:00 PM	27	0	24	0	2	10
1:15 PM	27	0	32	0	2	4
1:30 PM	20	0	26	0	3	4
1:45 PM	29	0	18	0	1	6
2:00 PM	31	0	30	0	3	5
2:15 PM	23	0	20	0	3	5
2:30 PM	21	0	15	0	1	5
2:45 PM	16	0	30	0	2	11
3:00 PM	27	0	28	0	4	2
3:15 PM	36	0	21	0	2	11
3:30 PM	40	1	21	0	1	3
3:45 PM	26	0	56	0	14	2
4:00 PM	32	0	27	0	2	8
4:15 PM	38	0	27	1	1	4
4:30 PM	25	0	20	0	3	7
4:45 PM	31	0	22	0	5	4
5:00 PM	36	0	26	0	4	4
5:15 PM	38	0	26	0	1	11
5:30 PM	30	0	17	0	4	3
5:45 PM	13	0	18	0	4	3
6:00 PM	1	0	0	0	1	0

Study Name **Location 81 Lakeshore Blvd & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound		Lakeshore Blvd Northbound		Washington St Eastbound	
Start Time	Thru	U-Turn	Thru	U-Turn	Right	Left
6:00 AM	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0
6:30 AM	0	0	1	0	0	0
6:45 AM	0	0	1	0	0	0
7:00 AM	2	0	1	0	0	0
7:15 AM	0	0	1	0	3	0
7:30 AM	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0
8:00 AM	0	0	1	0	0	0
8:15 AM	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0
9:00 AM	0	0	1	0	0	0
9:15 AM	0	0	1	0	0	0
9:30 AM	0	0	0	0	0	0
9:45 AM	0	0	1	0	0	0
10:00 AM	1	0	2	0	0	0
10:15 AM	0	0	2	0	0	0
10:30 AM	0	0	0	0	0	0
10:45 AM	1	0	0	0	0	0
11:00 AM	1	0	1	0	0	0
11:15 AM	1	0	0	0	0	0
11:30 AM	0	0	1	0	0	0
11:45 AM	1	0	0	0	0	0
12:00 PM	0	0	0	0	1	0
12:15 PM	1	0	0	0	0	0
12:30 PM	0	0	0	0	0	0
12:45 PM	2	0	2	0	0	0
1:00 PM	2	0	0	0	0	0
1:15 PM	0	0	0	0	0	1
1:30 PM	3	0	0	0	0	0
1:45 PM	0	0	0	0	0	0
2:00 PM	1	0	0	0	0	0
2:15 PM	0	0	0	0	1	0
2:30 PM	0	0	0	0	1	0
2:45 PM	0	0	0	0	0	0
3:00 PM	2	0	0	0	0	0
3:15 PM	0	0	0	0	1	0
3:30 PM	1	0	0	0	0	0
3:45 PM	1	0	1	0	0	0
4:00 PM	1	0	1	0	0	0
4:15 PM	1	0	2	0	0	1
4:30 PM	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0

Study Name **Location 81 Lakeshore Blvd & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound		Lakeshore Blvd Northbound		Washington St Eastbound	
Start Time	Thru	U-Turn	Thru	U-Turn	Right	Left
6:00 AM	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0
6:30 AM	0	0	1	0	0	0
6:45 AM	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0
7:30 AM	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0
1:45 PM	0	0	2	0	0	0
2:00 PM	0	0	0	0	0	0
2:15 PM	0	0	1	0	0	0
2:30 PM	1	0	0	0	0	0
2:45 PM	0	0	1	0	0	0
3:00 PM	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0
4:45 PM	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0
5:15 PM	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0

Study Name **Location 81 Lakeshore Blvd & Washin**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Crossing North Leg	Lakeshore Blvd Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	1
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	1	0	0
7:45 AM	0	0	0
8:00 AM	0	0	5
8:15 AM	0	0	2
8:30 AM	0	0	0
8:45 AM	0	0	5
9:00 AM	2	0	0
9:15 AM	1	1	6
9:30 AM	0	0	3
9:45 AM	0	0	2
10:00 AM	0	0	1
10:15 AM	0	0	1
10:30 AM	0	0	2
10:45 AM	0	0	4
11:00 AM	0	0	5
11:15 AM	0	1	1
11:30 AM	0	0	2
11:45 AM	1	0	3
12:00 PM	0	0	8
12:15 PM	0	0	4
12:30 PM	0	0	2
12:45 PM	0	0	1
1:00 PM	0	0	1
1:15 PM	0	0	5
1:30 PM	0	0	2
1:45 PM	1	0	0
2:00 PM	0	0	8
2:15 PM	2	0	0
2:30 PM	1	0	0
2:45 PM	0	0	1
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	2	0	10
3:45 PM	0	0	2
4:00 PM	0	0	6
4:15 PM	0	0	3
4:30 PM	0	0	9
4:45 PM	0	0	7
5:00 PM	0	0	4
5:15 PM	0	0	1
5:30 PM	0	0	2
5:45 PM	0	0	4
6:00 PM	0	0	0

Study Name **Location 81 Lakeshore Blvd & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Lakeshore Blvd Southbound		Lakeshore Blvd Northbound		Washington St Eastbound	
Start Time	Thru	U-Turn	Thru	U-Turn	Right	Left
6:00 AM	7	0	6	0	0	0
6:15 AM	6	0	2	1	0	1
6:30 AM	5	0	16	0	1	1
6:45 AM	8	0	20	0	1	0
7:00 AM	12	0	19	0	2	0
7:15 AM	11	0	14	0	6	1
7:30 AM	16	0	18	0	3	4
7:45 AM	25	0	26	0	5	2
8:00 AM	19	0	25	0	1	6
8:15 AM	17	0	12	0	1	0
8:30 AM	14	0	22	0	4	3
8:45 AM	15	0	30	0	7	5
9:00 AM	16	0	14	0	4	4
9:15 AM	15	0	18	0	1	4
9:30 AM	16	0	21	0	4	4
9:45 AM	23	0	15	0	2	3
10:00 AM	21	0	14	0	1	2
10:15 AM	10	0	15	0	2	3
10:30 AM	15	0	12	0	4	5
10:45 AM	16	0	21	0	5	6
11:00 AM	18	0	25	0	3	5
11:15 AM	15	0	18	0	5	4
11:30 AM	22	0	25	0	4	4
11:45 AM	20	0	23	0	2	7
12:00 PM	20	0	14	0	6	2
12:15 PM	26	0	25	0	2	10
12:30 PM	24	0	23	0	5	10
12:45 PM	27	0	27	0	2	8
1:00 PM	29	0	24	0	2	10
1:15 PM	27	0	32	0	2	5
1:30 PM	23	0	26	0	3	4
1:45 PM	29	0	20	0	1	6
2:00 PM	32	0	30	0	3	5
2:15 PM	23	0	21	0	4	5
2:30 PM	22	0	15	0	2	5
2:45 PM	16	0	31	0	2	11
3:00 PM	29	0	28	0	4	2
3:15 PM	36	0	21	0	3	11
3:30 PM	41	1	21	0	1	3
3:45 PM	27	0	57	0	14	2
4:00 PM	33	0	28	0	2	8
4:15 PM	39	0	29	1	1	5
4:30 PM	25	0	21	0	3	7
4:45 PM	31	0	22	0	5	4
5:00 PM	36	0	27	0	4	4
5:15 PM	38	0	26	0	1	11
5:30 PM	30	0	17	0	4	3
5:45 PM	13	0	18	0	4	3
6:00 PM	1	0	0	0	1	0

APPENDIX B

2-DAY/24-HOUR CORRIDOR COUNT SUMMARIES

Average Daily Traffic Volumes

						Existing				2030 No Build			
Loc. #	Street	From	To	Start Date	End Date	EB or NB ADT	WB or SB ADT	Total ADT	Rounded Total ADT	EB or NB ADT	WB or SB ADT	Total ADT	Rounded Total ADT
1	Hawley Street	City Limits	Lakeshore Blvd	10/8/13	10/10/13	1,581	1,787	3,368	3,400	1,721	1,945	3,666	3,700
2	Sugar Loaf Avenue	Wright Street	Hawley Street	10/8/13	10/10/13	2,442	3,022	5,464	5,500	2,658	3,289	5,947	6,000
3	Wright Street	Lincoln Avenue	Lakeshore Blvd	10/8/13	10/10/13	7,378	7,516	14,894	14,900	8,031	8,181	16,212	16,300
4	Wright Street	City Limits	Lincoln Avenue	10/8/13	10/10/13	4,773	4,885	9,658	9,700	5,195	5,317	10,513	10,600
5	Presque Isle Avenue	Wright Street	Hawley Street	10/8/13	10/10/13	2,107	1,258	3,365	3,400	2,293	1,369	3,663	3,700
6	Presque Isle Avenue	College Avenue	Wright Street	10/8/13	10/10/13	4,715	4,555	9,270	9,300	5,132	4,958	10,090	10,100
7	Center Street	Presque Isle Ave	Tracy Avenue	10/8/13	10/10/13	631	598	1,229	1,300	687	651	1,338	1,400
8	Fair Avenue	Presque Isle Ave	Lakeshore Blvd	10/8/13	10/10/13	1,636	1,949	3,585	3,600	1,781	2,121	3,902	4,000
9	College Avenue	4th Street	Front Street	10/8/13	10/10/13	333	683	1,016	1,100	362	743	1,106	1,200
10	Magnetic Street	4th Street	Pine Street	10/8/13	10/10/13	501	201	702	800	545	219	764	800
11	Magnetic Street	Lincoln Avenue	4th Street	9/30/14	10/1/14	1,472	1,002	2,474	2,500	1,594	1,085	2,680	2,700
12	College Avenue	Lincoln Avenue	7th Street	10/8/13	10/10/13	1,763	2,624	4,387	4,400	1,919	2,856	4,775	4,800
13	Fair Avenue	Lincoln Avenue	7th Street	10/8/13	10/10/13	1,492	1,284	2,776	2,800	1,624	1,398	3,022	3,100
14	Fair Avenue	McClellan Avenue	Lincoln Avenue	10/8/13	10/10/13	2,923	2,991	5,914	6,000	3,182	3,256	6,437	6,500
15	McClellan Avenue	Cleveland Ave	Wright Street	10/8/13	10/10/13	2,028	1,915	3,943	4,000	2,207	2,084	4,292	4,300
16	McClellan Avenue	U.S. 41	Cleveland Ave	10/8/13	10/10/13	5,228	5,172	10,400	10,400	5,691	5,630	11,320	11,400
17	Grove Street	McClellan Avenue	U.S. 41	10/8/13	10/10/13	1,689	1,558	3,247	3,300	1,838	1,696	3,534	3,600
18	7th Street	U.S. 41	Washington St.	10/8/13	10/10/13	2,697	2,964	5,661	5,700	2,936	3,226	6,162	6,200
19	7th Street	Washington St	Fair Avenue	10/8/13	10/10/13	3,558	3,324	6,882	6,900	3,873	3,618	7,491	7,500
20	Pine Street	Crescent Street	Fair Avenue	10/8/13	10/10/13	671	616	1,287	1,300	730	671	1,401	1,500
21	Front Street	Hewitt Avenue	Fair Avenue	10/8/13	10/10/13	1,616	1,123	2,739	2,800	1,759	1,222	2,981	3,000
22	3rd Street	Ridge Street	Fair Avenue	10/8/13	10/10/13	4,187	4,584	8,771	8,800	4,557	4,990	9,547	9,600
23	4th Street	Hewitt Avenue	College Avenue	10/8/13	10/10/13	3,602	3,949	7,551	7,600	3,921	4,298	8,219	8,300
24	Hewitt Avenue	7th Street	Pine Street	10/8/13	10/10/13	451	496	947	1,000	491	540	1,031	1,100
25	Pine Street	Ridge Street	Crescent Street	10/8/13	10/10/13	288	280	568	600	313	305	618	700
26	Hewitt Avenue	Pine Street	Lakeshore Blvd	10/8/13	10/10/13	533	518	1,051	1,100	580	564	1,144	1,200
27	Front Street	U.S. 41	Hewitt Avenue	9/30/14	10/1/14	6,001	4,982	10,983	11,000	6,500	5,396	11,895	11,900
28	3rd Street	Fisher Street	Ridge Street	10/8/13	10/10/13	1,901	2,904	4,805	4,900	2,069	3,161	5,230	5,300
29	4th Street	Fisher Street	Washington St.	10/8/13	10/10/13	1,581	2,086	3,667	3,700	1,721	2,271	3,991	4,000
30	Grove Street	City Limits	McClellan Avenue	10/8/13	10/10/13	1,464	1,553	3,017	3,100	1,594	1,690	3,284	3,300
31	Lincoln Avenue	Washington St	Cleveland Ave	9/30/14	10/1/14	2,370	3,074	5,444	5,500	2,567	3,329	5,896	5,900
32	Lincoln Avenue	Cleveland Ave	Wright Street	9/30/14	10/1/14	1,810	1,805	3,615	3,700	1,960	1,955	3,915	4,000
33	Washington Street	U.S. 41	Lincoln Avenue	9/30/14	10/1/14	7,489	8,111	15,600	15,600	8,111	8,785	16,896	16,900
34	Washington Street	Lincoln Avenue	Lakeshore Blvd	9/30/14	10/1/14	5,602	4,891	10,493	10,500	6,067	5,297	11,365	11,400

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	9	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	18	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	49	1	0	0	0	0	1	0	0	0	0
[07:00-08:00]	66	3	0	0	0	0	1	0	0	0	0
[08:00-09:00]	77	3	0	0	0	0	1	0	0	0	0
[09:00-10:00]	62	0	0	0	0	0	1	0	0	0	0
[10:00-11:00]	55	2	0	0	0	0	0	0	0	0	0
[11:00-12:00]	86	8	1	1	0	0	2	0	0	0	1
[12:00-13:00]	91	6	0	0	0	0	2	0	0	1	1
[13:00-14:00]	94	6	0	0	0	0	1	0	0	0	0
[14:00-15:00]	93	3	0	0	0	0	1	0	0	0	0
[15:00-16:00]	122	4	0	1	0	0	3	0	0	1	1
[16:00-17:00]	130	9	1	1	0	0	1	0	0	0	1
[17:00-18:00]	112	6	0	0	0	0	2	0	0	0	1
[18:00-19:00]	131	11	0	1	0	0	1	0	0	0	0
[19:00-20:00]	116	2	0	0	0	0	0	0	0	0	0
[20:00-21:00]	47	1	0	0	0	0	1	0	0	0	0
[21:00-22:00]	32	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	38	1	0	0	0	0	1	0	0	0	0
[23:00-00:00]	17	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	16	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	6	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	4	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	19	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	53	1	0	0	0	0	1	0	0	0	0
[07:00-08:00]	50	3	0	0	0	0	1	0	0	0	0
[08:00-09:00]	70	4	0	1	0	0	1	0	0	0	0
[09:00-10:00]	66	3	0	0	0	0	1	0	0	0	0
[10:00-11:00]	71	4	0	0	0	0	1	0	0	0	0
[11:00-12:00]	98	6	1	0	0	0	1	0	0	0	0
[12:00-13:00]	112	4	0	0	0	0	2	0	0	1	1
[13:00-14:00]	86	6	1	0	0	0	1	0	0	0	1
[14:00-15:00]	84	6	1	0	0	0	1	0	0	0	0
[15:00-16:00]	125	7	1	1	0	0	0	0	0	0	0
[16:00-17:00]	142	3	0	0	0	0	1	0	0	0	0
[17:00-18:00]	131	7	0	1	0	0	1	0	0	0	1
[18:00-19:00]	136	4	0	0	0	0	2	0	0	1	1
[19:00-20:00]	123	5	0	1	0	0	0	0	0	0	0
[20:00-21:00]	45	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	27	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	24	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	17	0	0	0	0	0	1	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	12	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	1	0	0	0	0
[05:00-06:00]	15	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	44	5	0	1	0	0	0	0	0	0	0
[07:00-08:00]	90	7	0	1	0	0	2	0	0	1	1
[08:00-09:00]	63	4	0	1	0	0	1	0	0	0	1
[09:00-10:00]	64	4	0	1	0	0	1	0	0	0	0
[10:00-11:00]	78	3	0	0	0	0	1	0	0	0	1
[11:00-12:00]	109	7	0	1	0	0	1	0	0	0	0
[12:00-13:00]	128	6	0	0	0	0	1	0	0	0	1
[13:00-14:00]	96	5	0	1	0	0	1	0	0	0	0
[14:00-15:00]	131	7	0	1	0	0	2	0	0	1	1
[15:00-16:00]	121	3	0	0	0	0	1	0	0	0	1
[16:00-17:00]	158	8	1	1	0	0	1	0	0	0	1
[17:00-18:00]	170	3	0	0	0	0	1	0	0	0	1
[18:00-19:00]	143	4	0	1	0	0	0	0	0	0	0
[19:00-20:00]	84	3	0	0	0	0	1	0	0	0	0
[20:00-21:00]	54	0	0	0	0	0	1	0	0	0	0
[21:00-22:00]	37	0	0	0	0	0	1	0	0	0	0
[22:00-23:00]	41	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	34	1	0	0	0	0	1	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	17	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	7	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	1	0	0	0	0
[05:00-06:00]	21	1	0	0	0	0	1	0	0	0	0
[06:00-07:00]	46	5	0	1	0	0	1	0	0	0	0
[07:00-08:00]	101	2	0	0	0	0	3	0	0	1	1
[08:00-09:00]	71	4	0	1	0	0	1	0	0	0	0
[09:00-10:00]	78	9	1	1	0	0	1	0	0	0	1
[10:00-11:00]	70	10	1	1	0	0	1	0	0	0	0
[11:00-12:00]	105	4	0	0	0	0	1	0	0	0	1
[12:00-13:00]	129	6	0	0	0	0	1	0	0	0	0
[13:00-14:00]	117	4	0	1	0	0	1	0	0	0	1
[14:00-15:00]	122	4	0	1	0	0	1	0	0	0	0
[15:00-16:00]	128	5	0	1	0	0	0	0	0	0	0
[16:00-17:00]	149	4	0	0	0	0	1	0	0	0	1
[17:00-18:00]	182	5	0	1	0	0	2	0	0	1	1
[18:00-19:00]	132	3	0	0	0	0	1	0	0	0	1
[19:00-20:00]	65	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	48	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	27	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	34	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	30	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	8	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	1
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	11	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	67	4	1	2	0	0	1	0	0	1	3
[06:00-07:00]	106	11	3	6	1	0	2	0	0	1	6
[07:00-08:00]	165	11	3	5	1	0	4	0	1	2	9
[08:00-09:00]	117	13	4	6	0	0	1	0	0	0	2
[09:00-10:00]	85	10	3	5	1	0	2	0	0	1	5
[10:00-11:00]	81	9	3	4	0	0	2	0	0	1	4
[11:00-12:00]	96	10	3	5	1	0	2	0	0	1	5
[12:00-13:00]	149	3	1	2	1	0	2	0	0	1	5
[13:00-14:00]	111	7	2	3	1	0	2	0	0	1	4
[14:00-15:00]	147	6	2	3	1	0	2	0	0	1	6
[15:00-16:00]	134	6	2	3	0	0	2	0	0	1	4
[16:00-17:00]	161	8	2	4	1	0	2	0	0	1	5
[17:00-18:00]	202	6	2	3	0	0	0	0	0	0	1
[18:00-19:00]	169	5	1	2	0	0	1	0	0	0	2
[19:00-20:00]	75	3	1	2	0	0	1	0	0	0	2
[20:00-21:00]	54	1	0	1	0	0	0	0	0	0	1
[21:00-22:00]	46	1	0	1	0	0	0	0	0	0	1
[22:00-23:00]	54	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	28	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	21	1	0	1	0	0	0	0	0	0	0
[01:00-02:00]	8	0	0	0	0	0	0	0	0	0	1
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	1	0	0	0	0	0	0	0	0	1
[05:00-06:00]	59	2	1	1	0	0	1	0	0	1	3
[06:00-07:00]	121	6	2	3	0	0	2	0	0	1	4
[07:00-08:00]	164	8	2	4	1	0	4	0	1	2	10
[08:00-09:00]	105	10	3	5	1	0	2	0	0	1	5
[09:00-10:00]	108	7	2	4	1	0	2	0	0	1	5
[10:00-11:00]	107	11	3	6	0	0	1	0	0	1	3
[11:00-12:00]	114	13	4	6	0	0	1	0	0	1	3
[12:00-13:00]	146	11	3	6	0	0	1	0	0	1	3
[13:00-14:00]	129	10	3	5	0	0	1	0	0	1	3
[14:00-15:00]	133	7	2	4	0	0	1	0	0	1	3
[15:00-16:00]	137	14	4	7	0	0	1	0	0	1	3
[16:00-17:00]	161	11	3	5	0	0	2	0	0	1	4
[17:00-18:00]	225	8	2	4	1	0	2	0	0	1	4
[18:00-19:00]	129	4	1	2	0	0	1	0	0	1	3
[19:00-20:00]	76	2	1	1	0	0	0	0	0	0	1
[20:00-21:00]	67	2	1	1	0	0	0	0	0	0	1
[21:00-22:00]	44	1	0	1	0	0	0	0	0	0	0
[22:00-23:00]	43	1	0	0	0	0	0	0	0	0	1
[23:00-00:00]	34	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	9	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	7	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	6	0	0	0	0	0	0	0	0	0	1
[05:00-06:00]	19	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	52	3	1	2	0	0	1	0	0	1	3
[07:00-08:00]	122	5	1	2	1	0	2	0	0	1	5
[08:00-09:00]	105	7	2	3	0	0	1	0	0	0	2
[09:00-10:00]	112	9	3	4	0	0	1	0	0	0	2
[10:00-11:00]	130	11	3	6	0	0	1	0	0	1	3
[11:00-12:00]	177	8	2	4	0	0	1	0	0	0	2
[12:00-13:00]	204	10	3	5	1	0	2	0	0	1	4
[13:00-14:00]	150	9	3	4	0	0	2	0	0	1	4
[14:00-15:00]	222	7	2	3	1	0	2	0	0	1	6
[15:00-16:00]	247	7	2	3	0	0	2	0	0	1	4
[16:00-17:00]	228	7	2	3	1	0	2	0	0	1	6
[17:00-18:00]	225	8	2	4	1	0	2	0	0	1	5
[18:00-19:00]	244	11	3	6	1	0	2	0	0	1	5
[19:00-20:00]	171	6	2	3	0	0	1	0	0	1	3
[20:00-21:00]	89	2	1	1	0	0	1	0	0	0	2
[21:00-22:00]	31	1	0	1	0	0	0	0	0	0	0
[22:00-23:00]	51	0	0	0	0	0	1	0	0	0	2

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	37	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	15	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	12	0	0	0	0	0	0	0	0	0	1
[03:00-04:00]	3	1	0	0	0	0	0	0	0	0	1
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	25	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	55	2	1	1	1	0	2	0	0	1	4
[07:00-08:00]	116	4	1	2	0	0	1	0	0	1	3
[08:00-09:00]	98	6	2	3	0	0	2	0	0	1	4
[09:00-10:00]	132	7	2	3	0	0	1	0	0	1	3
[10:00-11:00]	116	7	2	4	0	0	1	0	0	1	3
[11:00-12:00]	247	7	2	4	0	0	1	0	0	1	3
[12:00-13:00]	234	9	3	4	1	0	2	0	0	1	4
[13:00-14:00]	180	9	3	4	1	0	2	0	0	1	4
[14:00-15:00]	184	8	2	4	1	0	2	0	0	1	5
[15:00-16:00]	249	14	4	7	0	0	2	0	0	1	4
[16:00-17:00]	249	12	3	6	0	0	1	0	0	1	3
[17:00-18:00]	225	10	3	5	1	0	2	0	0	1	6
[18:00-19:00]	226	9	3	4	0	0	1	0	0	0	2
[19:00-20:00]	188	5	1	2	0	0	1	0	0	1	3
[20:00-21:00]	98	2	0	1	0	0	0	0	0	0	0
[21:00-22:00]	29	1	0	1	0	0	0	0	0	0	0
[22:00-23:00]	41	1	0	0	0	0	0	0	0	0	1
[23:00-00:00]	27	0	0	0	0	0	0	0	0	0	0

02 sugarloaf avenue from wright street to sawley street sb_Class by VOL.xls

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	53	0	0	0	0	0	0	0	0	0	1
[01:00-02:00]	27	2	0	0	0	0	0	0	0	0	0
[02:00-03:00]	11	0	0	0	0	0	0	0	0	0	1
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	19	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	114	3	0	0	0	0	1	0	0	1	3
[06:00-07:00]	228	11	2	1	1	1	2	0	0	2	9
[07:00-08:00]	381	17	2	1	1	1	4	0	0	3	15
[08:00-09:00]	367	24	3	1	0	0	1	0	0	0	2
[09:00-10:00]	335	23	3	1	0	1	2	0	0	1	7
[10:00-11:00]	274	25	4	2	0	0	1	0	0	1	6
[11:00-12:00]	401	19	3	1	1	1	2	0	0	1	7
[12:00-13:00]	476	17	2	1	1	1	2	0	0	1	9
[13:00-14:00]	475	17	2	1	0	0	1	0	0	1	5
[14:00-15:00]	500	10	1	1	1	1	2	0	0	2	9
[15:00-16:00]	451	16	2	1	0	0	2	0	0	1	6
[16:00-17:00]	545	26	4	2	1	1	3	0	0	2	11
[17:00-18:00]	585	18	3	1	0	0	1	0	0	1	4
[18:00-19:00]	446	10	1	1	0	0	2	0	0	1	6
[19:00-20:00]	349	5	1	0	0	0	0	0	0	0	2
[20:00-21:00]	304	4	1	0	0	0	0	0	0	0	2
[21:00-22:00]	201	7	1	0	0	0	0	0	0	0	2
[22:00-23:00]	183	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	96	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	67	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	29	0	0	0	0	0	0	0	0	0	1
[02:00-03:00]	12	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	10	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	17	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	110	2	0	0	0	0	1	0	0	1	5
[06:00-07:00]	231	12	2	1	0	0	2	0	0	1	6
[07:00-08:00]	358	12	2	1	1	1	3	0	0	2	12
[08:00-09:00]	357	22	3	1	1	1	2	0	0	2	9
[09:00-10:00]	403	22	3	1	0	1	2	0	0	1	7
[10:00-11:00]	328	20	3	1	0	0	1	0	0	1	4
[11:00-12:00]	444	19	3	1	0	0	1	0	0	1	4
[12:00-13:00]	468	27	4	2	0	0	1	0	0	1	5
[13:00-14:00]	491	18	3	1	0	0	1	0	0	1	5
[14:00-15:00]	455	15	2	1	1	1	3	0	0	2	10
[15:00-16:00]	506	26	4	2	0	1	2	0	0	1	7
[16:00-17:00]	508	14	2	1	1	1	2	0	0	1	9
[17:00-18:00]	595	11	2	1	1	1	2	0	0	1	8
[18:00-19:00]	476	7	1	0	0	0	1	0	0	0	2
[19:00-20:00]	334	8	1	1	0	0	1	0	0	0	2
[20:00-21:00]	310	2	0	0	0	0	1	0	0	0	2
[21:00-22:00]	225	2	0	0	0	0	0	0	0	0	1
[22:00-23:00]	146	2	0	0	0	0	0	0	0	0	1
[23:00-00:00]	112	2	0	0	0	0	0	0	0	0	1

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	42	2	0	0	0	0	0	0	0	0	1
[01:00-02:00]	33	2	0	0	0	0	0	0	0	0	0
[02:00-03:00]	14	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	10	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	18	0	0	0	0	0	0	0	0	0	1
[05:00-06:00]	42	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	119	6	1	0	0	0	1	0	0	1	4
[07:00-08:00]	301	10	1	1	0	1	2	0	0	1	7
[08:00-09:00]	290	14	2	1	0	0	0	0	0	0	2
[09:00-10:00]	277	18	3	1	0	0	1	0	0	1	4
[10:00-11:00]	303	20	3	1	0	0	1	0	0	1	6
[11:00-12:00]	430	12	2	1	0	0	1	0	0	1	4
[12:00-13:00]	484	22	3	1	1	1	2	0	0	2	9
[13:00-14:00]	468	16	2	1	0	0	1	0	0	1	4
[14:00-15:00]	553	22	3	1	1	1	3	0	0	2	12
[15:00-16:00]	575	14	2	1	1	1	2	0	0	1	9
[16:00-17:00]	629	22	3	1	1	1	2	0	0	2	9
[17:00-18:00]	646	21	3	1	1	1	2	0	0	2	9
[18:00-19:00]	541	12	2	1	1	1	2	0	0	1	8
[19:00-20:00]	406	13	2	1	0	0	2	0	0	1	6
[20:00-21:00]	300	3	0	0	0	0	0	0	0	0	2
[21:00-22:00]	212	1	0	0	0	0	0	0	0	0	1
[22:00-23:00]	176	3	0	0	0	0	0	0	0	0	1
[23:00-00:00]	128	1	0	0	0	0	0	0	0	0	2

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	82	4	1	0	0	0	0	0	0	0	0
[01:00-02:00]	46	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	25	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	7	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	18	2	0	0	0	0	0	0	0	0	0
[05:00-06:00]	43	0	0	0	0	0	0	0	0	0	1
[06:00-07:00]	117	3	0	0	0	0	1	0	0	1	6
[07:00-08:00]	285	7	1	0	0	0	1	0	0	1	5
[08:00-09:00]	298	12	2	1	0	0	1	0	0	1	5
[09:00-10:00]	336	15	2	1	0	0	1	0	0	1	4
[10:00-11:00]	320	16	2	1	0	0	1	0	0	1	4
[11:00-12:00]	474	15	2	1	0	0	1	0	0	1	5
[12:00-13:00]	470	12	2	1	1	1	2	0	0	1	8
[13:00-14:00]	457	16	2	1	1	1	3	0	0	2	10
[14:00-15:00]	513	12	2	1	1	1	2	0	0	1	7
[15:00-16:00]	658	16	2	1	1	1	2	0	0	1	8
[16:00-17:00]	635	22	3	1	1	1	2	0	0	1	9
[17:00-18:00]	659	17	2	1	1	1	2	0	0	2	9
[18:00-19:00]	503	11	2	1	0	0	2	0	0	1	6
[19:00-20:00]	458	7	1	0	0	0	1	0	0	1	4
[20:00-21:00]	336	3	0	0	0	0	0	0	0	0	1
[21:00-22:00]	184	2	0	0	0	0	0	0	0	0	1
[22:00-23:00]	149	2	0	0	0	0	0	0	0	0	2
[23:00-00:00]	124	1	0	0	0	0	0	0	0	0	1

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	21	1	0	0	0	0	0	0	0	0	1
[01:00-02:00]	12	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	20	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	52	2	1	0	0	0	0	0	0	1	3
[06:00-07:00]	157	4	1	0	0	1	1	0	0	1	6
[07:00-08:00]	331	6	1	1	1	1	1	0	0	2	12
[08:00-09:00]	342	8	1	1	0	0	0	0	0	1	5
[09:00-10:00]	251	17	3	1	0	0	0	0	0	1	5
[10:00-11:00]	220	11	2	1	0	0	0	0	0	0	4
[11:00-12:00]	260	10	2	1	0	1	1	0	0	1	6
[12:00-13:00]	309	10	2	1	0	1	1	0	0	1	6
[13:00-14:00]	281	8	1	1	0	0	0	0	0	1	6
[14:00-15:00]	306	11	2	1	0	0	1	0	0	1	4
[15:00-16:00]	277	10	2	1	1	1	0	0	0	1	6
[16:00-17:00]	358	10	2	1	1	1	1	0	0	1	7
[17:00-18:00]	381	9	1	1	0	0	1	0	0	1	4
[18:00-19:00]	270	4	1	0	0	0	1	0	0	1	4
[19:00-20:00]	228	2	0	0	0	0	0	0	0	0	1
[20:00-21:00]	161	1	0	0	0	0	0	0	0	0	1
[21:00-22:00]	133	1	0	0	0	0	0	0	0	0	1
[22:00-23:00]	107	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	41	0	0	0	0	0	0	0	0	0	1

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	30	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	11	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	8	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	8	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	14	0	0	0	0	0	0	0	0	0	1
[05:00-06:00]	55	2	0	0	0	0	0	0	0	0	2
[06:00-07:00]	168	2	0	0	1	1	0	0	0	1	6
[07:00-08:00]	313	3	1	0	1	1	1	0	0	1	11
[08:00-09:00]	295	6	1	1	0	1	1	0	0	1	6
[09:00-10:00]	308	12	2	1	0	0	0	0	0	1	3
[10:00-11:00]	228	12	2	1	0	0	0	0	0	1	3
[11:00-12:00]	306	11	2	1	0	0	0	0	0	0	4
[12:00-13:00]	303	12	2	1	0	0	0	0	0	0	4
[13:00-14:00]	282	8	1	1	1	1	1	0	0	1	8
[14:00-15:00]	282	6	1	1	1	1	1	0	0	1	7
[15:00-16:00]	294	13	2	1	0	0	0	0	0	1	3
[16:00-17:00]	329	10	2	1	0	0	0	0	0	0	4
[17:00-18:00]	333	6	1	1	1	1	0	0	0	1	6
[18:00-19:00]	281	10	2	1	0	0	1	0	0	1	4
[19:00-20:00]	214	3	1	0	0	0	0	0	0	0	1
[20:00-21:00]	169	1	0	0	0	0	0	0	0	0	1
[21:00-22:00]	125	0	0	0	0	0	0	0	0	0	1
[22:00-23:00]	78	0	0	0	0	0	0	0	0	0	1
[23:00-00:00]	56	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	18	1	0	0	0	0	0	0	0	0	1
[01:00-02:00]	14	1	0	0	0	0	0	0	0	0	1
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	17	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	34	2	1	0	0	0	0	0	0	0	1
[06:00-07:00]	83	4	1	0	0	0	0	0	0	0	4
[07:00-08:00]	173	8	1	1	1	1	1	0	0	1	5
[08:00-09:00]	182	10	2	1	0	1	1	0	0	1	6
[09:00-10:00]	173	10	2	1	0	0	0	0	0	0	4
[10:00-11:00]	236	10	2	1	0	0	0	0	0	0	4
[11:00-12:00]	269	11	2	1	0	0	0	0	0	1	3
[12:00-13:00]	300	16	3	1	0	0	0	0	0	1	6
[13:00-14:00]	316	7	1	1	1	1	1	0	0	1	7
[14:00-15:00]	353	16	3	1	1	1	1	0	0	1	11
[15:00-16:00]	430	9	1	1	0	0	0	0	0	0	2
[16:00-17:00]	460	15	3	1	0	0	1	0	0	1	4
[17:00-18:00]	485	9	1	1	1	1	1	0	0	1	5
[18:00-19:00]	361	9	1	1	1	1	1	0	0	1	5
[19:00-20:00]	251	2	1	0	0	0	0	0	0	0	4
[20:00-21:00]	156	1	0	0	0	0	0	0	0	0	4
[21:00-22:00]	107	1	0	0	0	0	0	0	0	0	1
[22:00-23:00]	86	3	1	0	0	0	0	0	0	0	1
[23:00-00:00]	46	0	0	0	0	0	0	0	0	0	1

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	32	0	0	0	0	0	0	0	0	0	1
[01:00-02:00]	12	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	8	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	4	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	15	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	37	2	1	0	0	0	0	0	0	0	1
[06:00-07:00]	89	3	1	0	1	1	1	0	0	1	5
[07:00-08:00]	163	6	1	0	0	0	0	0	0	1	4
[08:00-09:00]	169	9	1	1	1	1	1	0	0	1	7
[09:00-10:00]	183	9	1	1	1	1	1	0	0	1	5
[10:00-11:00]	237	14	2	1	1	1	1	0	0	1	5
[11:00-12:00]	299	10	2	1	1	1	1	0	0	1	5
[12:00-13:00]	290	7	1	1	1	1	1	0	0	1	7
[13:00-14:00]	310	10	2	1	1	1	1	0	0	1	8
[14:00-15:00]	383	9	1	1	1	1	1	0	0	1	10
[15:00-16:00]	456	14	2	1	1	1	1	0	0	1	8
[16:00-17:00]	470	11	2	1	0	0	0	0	0	1	5
[17:00-18:00]	478	10	2	1	0	0	0	0	0	1	6
[18:00-19:00]	320	12	2	1	0	0	0	0	0	0	4
[19:00-20:00]	274	2	0	0	0	0	0	0	0	1	3
[20:00-21:00]	181	3	1	0	0	0	0	0	0	0	1
[21:00-22:00]	93	0	0	0	0	0	0	0	0	0	1
[22:00-23:00]	71	1	0	0	0	0	0	0	0	0	1
[23:00-00:00]	60	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	25	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	5	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	6	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	9	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	27	3	0	0	0	0	0	0	0	0	0
[06:00-07:00]	51	4	0	0	1	0	0	0	0	0	0
[07:00-08:00]	59	4	0	0	1	1	0	0	0	1	0
[08:00-09:00]	82	5	0	0	1	1	0	0	0	1	0
[09:00-10:00]	84	4	0	0	1	1	0	0	0	1	0
[10:00-11:00]	79	4	0	0	0	0	0	0	0	0	0
[11:00-12:00]	137	12	1	1	3	1	1	0	0	1	1
[12:00-13:00]	162	17	1	1	3	1	1	0	0	1	1
[13:00-14:00]	146	9	0	1	3	1	1	0	0	1	1
[14:00-15:00]	148	4	0	0	1	0	0	0	0	0	0
[15:00-16:00]	155	9	0	1	3	1	1	0	0	1	1
[16:00-17:00]	164	9	0	1	2	1	0	0	0	1	0
[17:00-18:00]	170	7	0	1	1	0	0	0	0	0	0
[18:00-19:00]	133	5	0	0	1	0	0	0	0	0	0
[19:00-20:00]	93	2	0	0	1	0	0	0	0	0	0
[20:00-21:00]	87	1	0	0	1	0	0	0	0	0	0
[21:00-22:00]	60	3	0	0	1	0	0	0	0	0	0
[22:00-23:00]	40	1	0	0	1	0	0	0	0	0	0
[23:00-00:00]	40	4	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	30	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	7	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	7	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	8	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	30	2	0	0	0	0	0	0	0	0	0
[06:00-07:00]	46	4	0	0	1	0	0	0	0	0	0
[07:00-08:00]	72	9	0	1	2	1	0	0	0	1	0
[08:00-09:00]	82	7	0	1	0	0	0	0	0	0	0
[09:00-10:00]	70	6	0	0	2	1	0	0	0	1	0
[10:00-11:00]	79	5	0	0	2	1	0	0	0	1	0
[11:00-12:00]	115	12	1	1	1	1	0	0	0	1	0
[12:00-13:00]	139	6	0	0	2	1	0	0	0	1	0
[13:00-14:00]	144	11	1	1	1	1	0	0	0	1	0
[14:00-15:00]	147	10	1	1	3	1	1	0	0	1	1
[15:00-16:00]	160	6	0	0	3	1	1	0	0	1	1
[16:00-17:00]	148	13	1	1	3	1	1	0	0	1	1
[17:00-18:00]	155	6	0	0	2	1	1	0	0	1	0
[18:00-19:00]	121	5	0	0	0	0	0	0	0	0	0
[19:00-20:00]	83	9	0	1	0	0	0	0	0	0	0
[20:00-21:00]	80	4	0	0	2	1	1	0	0	1	0
[21:00-22:00]	57	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	49	4	0	0	1	0	0	0	0	0	0
[23:00-00:00]	43	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	10	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	1	1	0	0	0	0	0
[02:00-03:00]	3	2	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	1	0	0	1	0	0	0	0	0	0
[05:00-06:00]	8	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	30	4	0	0	1	1	0	0	0	1	0
[07:00-08:00]	46	4	0	0	3	1	1	0	0	1	1
[08:00-09:00]	48	3	0	0	1	0	0	0	0	0	0
[09:00-10:00]	49	5	0	1	1	1	0	0	0	1	0
[10:00-11:00]	51	3	0	0	0	0	0	0	0	0	0
[11:00-12:00]	72	5	0	1	2	1	0	0	0	1	0
[12:00-13:00]	90	6	0	0	2	1	1	0	0	1	1
[13:00-14:00]	79	5	0	1	2	1	1	0	0	1	1
[14:00-15:00]	85	4	0	0	2	1	0	0	0	1	0
[15:00-16:00]	84	5	0	1	3	2	1	0	0	1	1
[16:00-17:00]	100	8	1	1	3	1	1	0	0	1	1
[17:00-18:00]	64	4	0	0	3	1	1	0	0	1	1
[18:00-19:00]	64	1	0	0	4	2	1	0	0	2	1
[19:00-20:00]	71	2	0	0	1	1	0	0	0	1	0
[20:00-21:00]	43	0	0	0	1	0	0	0	0	0	0
[21:00-22:00]	25	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	26	1	0	0	1	0	0	0	0	0	0
[23:00-00:00]	17	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	13	0	0	0	1	0	0	0	0	0	0
[01:00-02:00]	8	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	8	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	4	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	12	3	0	0	0	0	0	0	0	0	0
[06:00-07:00]	32	2	0	0	0	0	0	0	0	0	0
[07:00-08:00]	35	5	0	1	1	1	0	0	0	0	0
[08:00-09:00]	47	1	0	0	1	1	0	0	0	0	0
[09:00-10:00]	61	1	0	0	1	1	0	0	0	0	0
[10:00-11:00]	55	4	0	0	1	1	0	0	0	0	0
[11:00-12:00]	85	4	0	0	2	1	1	0	0	1	0
[12:00-13:00]	88	4	0	0	1	0	0	0	0	0	0
[13:00-14:00]	80	2	0	0	3	1	1	0	0	1	1
[14:00-15:00]	93	1	0	0	3	1	1	0	0	1	1
[15:00-16:00]	92	3	0	0	5	2	1	0	0	2	1
[16:00-17:00]	86	4	0	0	3	1	1	0	0	1	1
[17:00-18:00]	85	3	0	0	1	1	0	0	0	1	0
[18:00-19:00]	89	3	0	0	2	1	1	0	0	1	0
[19:00-20:00]	87	3	0	0	3	1	1	0	0	1	1
[20:00-21:00]	42	4	0	0	0	0	0	0	0	0	0
[21:00-22:00]	23	2	0	0	1	0	0	0	0	0	0
[22:00-23:00]	34	1	0	0	1	0	0	0	0	0	0
[23:00-00:00]	14	0	0	0	1	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	32	9	0	1	2	1	1	0	0	1	1
[01:00-02:00]	12	2	0	0	0	0	0	0	0	0	0
[02:00-03:00]	7	0	0	0	1	0	0	0	0	0	0
[03:00-04:00]	5	1	0	0	1	0	0	0	0	0	0
[04:00-05:00]	12	1	0	0	1	0	0	0	0	0	0
[05:00-06:00]	24	8	0	1	1	1	0	0	0	1	0
[06:00-07:00]	67	18	1	1	4	2	1	0	0	2	1
[07:00-08:00]	146	27	1	2	6	3	1	0	0	2	1
[08:00-09:00]	128	27	2	2	6	3	2	0	0	3	1
[09:00-10:00]	166	27	2	2	5	2	1	0	0	2	1
[10:00-11:00]	155	20	1	2	4	2	1	0	0	2	1
[11:00-12:00]	221	30	2	2	6	3	1	0	0	2	1
[12:00-13:00]	271	42	2	3	12	5	3	0	0	5	2
[13:00-14:00]	311	30	2	2	11	5	3	0	0	4	2
[14:00-15:00]	310	33	2	2	5	2	1	0	0	2	1
[15:00-16:00]	292	27	2	2	12	6	3	0	0	5	2
[16:00-17:00]	337	42	2	3	5	2	1	0	0	2	1
[17:00-18:00]	354	35	2	3	6	3	2	0	0	2	1
[18:00-19:00]	288	28	2	2	5	2	1	0	0	2	1
[19:00-20:00]	213	18	1	1	3	2	1	0	0	1	1
[20:00-21:00]	203	18	1	1	4	2	1	0	0	2	1
[21:00-22:00]	151	10	1	1	1	0	0	0	0	0	0
[22:00-23:00]	103	6	0	0	2	1	0	0	0	1	0
[23:00-00:00]	86	3	0	0	2	1	0	0	0	1	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	51	4	0	0	2	1	0	0	0	1	0
[01:00-02:00]	17	3	0	0	0	0	0	0	0	0	0
[02:00-03:00]	13	2	0	0	0	0	0	0	0	0	0
[03:00-04:00]	12	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	11	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	30	6	0	0	0	0	0	0	0	0	0
[06:00-07:00]	80	15	1	1	3	2	1	0	0	1	1
[07:00-08:00]	175	19	1	1	8	4	2	0	0	3	2
[08:00-09:00]	155	15	1	1	5	2	1	0	0	2	1
[09:00-10:00]	195	31	2	2	6	3	2	0	0	2	1
[10:00-11:00]	173	25	1	2	3	1	1	0	0	1	1
[11:00-12:00]	213	31	2	2	3	1	1	0	0	1	1
[12:00-13:00]	291	26	1	2	7	3	2	0	0	3	1
[13:00-14:00]	301	23	1	2	6	3	2	0	0	3	1
[14:00-15:00]	310	26	1	2	8	4	2	0	0	3	2
[15:00-16:00]	334	26	1	2	6	3	2	0	0	2	1
[16:00-17:00]	326	23	1	2	9	4	2	0	0	4	2
[17:00-18:00]	352	27	1	2	10	5	3	0	0	4	2
[18:00-19:00]	308	19	1	1	3	1	1	0	0	1	1
[19:00-20:00]	265	21	1	2	6	3	2	0	0	3	1
[20:00-21:00]	180	18	1	1	4	2	1	0	0	2	1
[21:00-22:00]	130	13	1	1	1	0	0	0	0	0	0
[22:00-23:00]	107	10	1	1	4	2	1	0	0	2	1
[23:00-00:00]	80	4	0	0	1	1	0	0	0	1	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	48	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	16	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	8	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	41	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	85	6	0	0	0	0	0	0	0	0	0
[07:00-08:00]	167	8	0	0	2	1	1	0	0	1	1
[08:00-09:00]	165	4	0	0	2	1	1	0	0	1	1
[09:00-10:00]	158	11	0	0	1	1	1	0	0	0	0
[10:00-11:00]	182	16	1	1	2	2	1	0	0	1	1
[11:00-12:00]	177	5	0	0	2	2	1	0	0	1	1
[12:00-13:00]	286	13	1	1	3	2	1	0	0	1	1
[13:00-14:00]	306	6	0	0	2	1	1	0	0	1	1
[14:00-15:00]	349	12	0	0	2	2	1	0	0	1	1
[15:00-16:00]	323	5	0	0	2	2	1	0	0	1	1
[16:00-17:00]	386	13	1	1	3	3	2	0	0	1	1
[17:00-18:00]	374	6	0	0	3	3	2	0	0	1	1
[18:00-19:00]	299	12	0	0	3	2	2	0	0	1	1
[19:00-20:00]	244	9	1	1	2	2	1	0	0	1	1
[20:00-21:00]	197	4	0	0	1	1	1	0	0	0	0
[21:00-22:00]	125	6	0	0	2	2	1	0	0	1	1
[22:00-23:00]	101	3	0	0	1	1	0	0	0	0	0
[23:00-00:00]	72	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	50	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	28	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	17	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	11	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	9	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	21	2	0	0	0	0	0	0	0	0	0
[06:00-07:00]	80	8	0	0	1	1	1	0	0	1	0
[07:00-08:00]	139	8	0	0	0	0	0	0	0	0	0
[08:00-09:00]	171	5	0	0	0	0	0	0	0	0	0
[09:00-10:00]	196	10	0	0	1	1	0	0	0	0	0
[10:00-11:00]	211	14	1	1	1	1	0	0	0	0	0
[11:00-12:00]	336	6	0	0	1	1	1	0	0	0	0
[12:00-13:00]	351	8	0	0	3	2	1	0	0	1	1
[13:00-14:00]	292	9	0	0	2	1	1	0	0	1	1
[14:00-15:00]	298	7	0	0	2	1	1	0	0	1	1
[15:00-16:00]	399	9	0	0	3	2	1	0	0	1	1
[16:00-17:00]	382	10	0	0	1	1	1	0	0	0	0
[17:00-18:00]	380	15	1	1	3	3	2	0	0	1	1
[18:00-19:00]	356	6	0	0	4	3	2	0	0	2	1
[19:00-20:00]	256	8	0	0	1	1	1	0	0	0	0
[20:00-21:00]	209	3	0	0	1	1	0	0	0	0	0
[21:00-22:00]	139	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	114	3	0	0	0	0	0	0	0	0	0
[23:00-00:00]	71	5	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	6	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	5	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	3	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	5	2	0	0	0	0	0	0	0	0	0
[07:00-08:00]	14	0	0	0	0	0	0	0	0	0	0
[08:00-09:00]	12	3	0	0	0	0	0	0	0	0	0
[09:00-10:00]	15	3	0	0	0	0	0	0	0	0	0
[10:00-11:00]	15	1	0	0	0	0	0	0	0	0	0
[11:00-12:00]	35	3	0	0	0	0	0	0	0	0	0
[12:00-13:00]	23	5	0	0	0	0	0	0	0	0	0
[13:00-14:00]	45	3	0	0	1	1	0	0	0	1	0
[14:00-15:00]	34	0	0	0	0	0	0	0	0	0	0
[15:00-16:00]	56	3	0	0	0	0	0	0	0	0	0
[16:00-17:00]	35	4	0	0	1	1	0	0	0	2	0
[17:00-18:00]	62	6	1	0	1	1	0	0	0	1	0
[18:00-19:00]	38	3	0	0	0	0	0	0	0	0	0
[19:00-20:00]	41	4	0	0	0	0	0	0	0	0	0
[20:00-21:00]	47	3	0	0	0	0	0	0	0	0	0
[21:00-22:00]	33	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	21	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	18	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	8	2	0	0	0	0	0	0	0	0	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	4	2	0	0	0	0	0	0	0	0	0
[06:00-07:00]	8	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	18	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	13	2	0	0	0	0	0	0	0	0	0
[09:00-10:00]	24	2	0	0	0	0	0	0	0	0	0
[10:00-11:00]	20	0	0	0	0	0	0	0	0	0	0
[11:00-12:00]	33	5	0	0	1	1	0	0	0	1	0
[12:00-13:00]	24	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	39	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	48	0	0	0	1	1	0	0	0	1	0
[15:00-16:00]	37	3	0	0	0	0	0	0	0	0	0
[16:00-17:00]	60	2	0	0	1	1	0	0	0	1	0
[17:00-18:00]	56	1	0	0	0	0	0	0	0	0	0
[18:00-19:00]	52	3	0	0	0	0	0	0	0	0	0
[19:00-20:00]	28	3	0	0	0	0	0	0	0	0	0
[20:00-21:00]	21	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	40	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	28	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	17	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	3	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	11	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	29	2	0	0	0	0	0	0	0	0	0
[08:00-09:00]	33	0	0	0	0	0	0	0	0	0	0
[09:00-10:00]	29	5	0	0	1	1	0	0	0	1	0
[10:00-11:00]	31	0	0	0	0	0	0	0	0	0	0
[11:00-12:00]	35	5	0	0	1	1	0	0	0	1	0
[12:00-13:00]	46	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	43	3	0	0	0	0	0	0	0	0	0
[14:00-15:00]	30	0	0	0	1	1	0	0	0	2	0
[15:00-16:00]	40	4	0	0	1	1	0	0	0	1	0
[16:00-17:00]	35	1	0	0	0	0	0	0	0	0	0
[17:00-18:00]	39	1	0	0	0	0	0	0	0	0	0
[18:00-19:00]	37	2	0	0	0	0	0	0	0	0	0
[19:00-20:00]	36	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	25	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	19	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	16	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	12	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	3	1	0	0	0	0	0	0	0	1	0
[06:00-07:00]	13	0	0	0	0	0	0	0	0	1	0
[07:00-08:00]	28	1	0	0	0	0	0	0	0	1	0
[08:00-09:00]	27	0	0	0	0	0	0	0	0	0	0
[09:00-10:00]	36	4	0	0	0	0	0	0	0	1	0
[10:00-11:00]	23	5	0	0	0	0	0	0	0	1	0
[11:00-12:00]	28	1	0	0	1	1	0	0	0	1	0
[12:00-13:00]	32	5	0	0	1	1	0	0	0	1	0
[13:00-14:00]	35	2	0	0	1	1	0	0	0	2	0
[14:00-15:00]	45	5	0	0	0	0	0	0	0	1	0
[15:00-16:00]	37	2	0	0	1	1	0	0	0	1	0
[16:00-17:00]	39	3	0	0	0	0	0	0	0	1	0
[17:00-18:00]	40	2	0	0	0	0	0	0	0	1	0
[18:00-19:00]	37	2	0	0	0	0	0	0	0	0	0
[19:00-20:00]	33	1	0	0	0	0	0	0	0	1	0
[20:00-21:00]	22	1	0	0	0	0	0	0	0	1	0
[21:00-22:00]	19	1	0	0	0	0	0	0	0	1	0
[22:00-23:00]	13	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	14	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	7	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	19	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	29	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	40	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	52	5	0	0	0	0	0	0	0	0	0
[09:00-10:00]	51	5	0	0	1	1	0	0	0	1	0
[10:00-11:00]	78	5	0	0	1	1	0	0	0	1	0
[11:00-12:00]	71	4	0	0	0	0	0	0	0	0	0
[12:00-13:00]	95	8	1	0	1	1	0	0	0	1	0
[13:00-14:00]	108	7	1	0	2	1	0	0	0	2	0
[14:00-15:00]	119	5	0	0	1	1	0	0	0	1	0
[15:00-16:00]	127	6	1	0	1	1	0	0	0	1	0
[16:00-17:00]	134	5	0	0	2	2	0	0	0	2	0
[17:00-18:00]	154	14	1	0	1	1	0	0	0	2	0
[18:00-19:00]	92	4	0	0	2	2	0	0	0	2	0
[19:00-20:00]	79	5	0	0	0	0	0	0	0	0	0
[20:00-21:00]	51	4	0	0	1	1	0	0	0	2	0
[21:00-22:00]	53	3	0	0	0	0	0	0	0	0	0
[22:00-23:00]	43	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	20	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	17	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	10	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	15	2	0	0	0	0	0	0	0	0	0
[06:00-07:00]	23	0	0	0	1	1	0	0	0	1	0
[07:00-08:00]	41	5	0	0	0	0	0	0	0	0	0
[08:00-09:00]	56	2	0	0	0	0	0	0	0	0	0
[09:00-10:00]	57	6	1	0	0	0	0	0	0	0	0
[10:00-11:00]	75	4	0	0	0	0	0	0	0	0	0
[11:00-12:00]	84	5	0	0	0	0	0	0	0	0	0
[12:00-13:00]	95	6	1	0	2	1	0	0	0	2	0
[13:00-14:00]	106	4	0	0	1	1	0	0	0	2	0
[14:00-15:00]	110	8	1	0	3	2	0	0	0	3	0
[15:00-16:00]	150	4	0	0	1	1	0	0	0	1	0
[16:00-17:00]	137	8	1	0	1	1	0	0	0	2	0
[17:00-18:00]	195	8	1	0	2	2	0	0	0	3	0
[18:00-19:00]	148	6	1	0	1	1	0	0	0	1	0
[19:00-20:00]	91	5	0	0	1	1	0	0	0	2	0
[20:00-21:00]	66	2	0	0	1	1	0	0	0	1	0
[21:00-22:00]	40	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	17	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	33	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	12	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	6	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	10	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	46	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	93	5	0	0	0	0	0	0	0	0	0
[08:00-09:00]	83	3	0	0	0	0	0	0	0	0	0
[09:00-10:00]	77	3	0	0	1	1	0	0	0	1	0
[10:00-11:00]	79	5	0	0	2	1	0	0	0	2	0
[11:00-12:00]	121	6	0	0	1	1	0	0	0	1	0
[12:00-13:00]	118	10	0	0	1	1	0	0	0	2	0
[13:00-14:00]	139	8	1	0	0	0	0	0	0	0	0
[14:00-15:00]	101	9	1	0	1	1	0	0	0	2	0
[15:00-16:00]	130	8	1	0	0	0	0	0	0	0	0
[16:00-17:00]	134	7	1	0	1	1	0	0	0	1	0
[17:00-18:00]	139	4	0	0	1	1	0	0	0	2	0
[18:00-19:00]	151	6	0	0	0	0	0	0	0	0	0
[19:00-20:00]	120	2	0	0	0	0	0	0	0	0	0
[20:00-21:00]	86	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	59	3	0	0	0	0	0	0	0	0	0
[22:00-23:00]	36	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	22	0	0	0	0	1	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	11	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	7	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	8	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	14	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	37	5	1	0	0	0	0	0	0	1	0
[07:00-08:00]	66	7	1	0	2	2	0	0	0	2	0
[08:00-09:00]	82	4	0	0	0	0	0	0	0	0	0
[09:00-10:00]	87	5	1	0	1	0	0	0	0	1	0
[10:00-11:00]	90	5	0	0	1	1	0	0	0	2	0
[11:00-12:00]	99	6	1	0	0	0	0	0	0	0	0
[12:00-13:00]	126	7	1	0	1	1	0	0	0	1	0
[13:00-14:00]	124	9	1	0	1	1	0	0	0	2	0
[14:00-15:00]	99	13	1	0	1	1	0	0	0	1	0
[15:00-16:00]	143	4	0	0	0	0	0	0	0	0	0
[16:00-17:00]	142	8	1	0	1	1	0	0	0	1	0
[17:00-18:00]	141	5	0	0	1	1	0	0	0	1	0
[18:00-19:00]	166	4	0	0	1	1	0	0	0	1	0
[19:00-20:00]	185	8	1	0	2	2	0	0	0	2	0
[20:00-21:00]	101	4	0	0	0	0	0	0	0	0	0
[21:00-22:00]	64	2	0	0	0	0	0	0	0	1	0
[22:00-23:00]	27	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	43	2	0	0	0	0	0	0	0	1	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	2	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	2	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	12	2	0	0	0	0	0	0	0	0	0
[08:00-09:00]	9	0	0	0	0	0	0	0	0	0	0
[09:00-10:00]	12	0	0	0	1	1	0	0	0	1	0
[10:00-11:00]	16	0	0	0	0	0	0	0	0	0	0
[11:00-12:00]	10	0	0	0	1	1	0	0	0	1	0
[12:00-13:00]	26	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	19	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	25	2	0	0	0	0	0	0	0	0	0
[15:00-16:00]	18	3	0	0	0	0	0	0	0	0	0
[16:00-17:00]	25	3	0	0	0	0	0	0	0	0	0
[17:00-18:00]	24	1	0	0	0	0	0	0	0	0	0
[18:00-19:00]	18	4	0	0	1	1	0	0	0	1	0
[19:00-20:00]	7	3	0	0	0	0	0	0	0	0	0
[20:00-21:00]	17	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	7	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	6	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	3	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	1	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	5	0	0	0	0	0	0	0	0	1	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	0	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	2	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	19	0	0	0	0	0	0	0	0	0	0
[08:00-09:00]	7	1	0	0	0	0	0	0	0	0	0
[09:00-10:00]	6	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	16	4	0	0	0	0	0	0	0	0	0
[11:00-12:00]	24	1	0	0	0	0	0	0	0	0	0
[12:00-13:00]	22	0	0	0	1	1	0	0	0	2	0
[13:00-14:00]	24	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	28	1	0	0	0	1	0	0	0	1	0
[15:00-16:00]	20	1	0	0	0	1	0	0	0	1	0
[16:00-17:00]	31	5	0	0	1	1	0	0	0	2	0
[17:00-18:00]	42	3	0	0	0	0	0	0	0	0	0
[18:00-19:00]	27	4	0	0	0	0	0	0	0	1	0
[19:00-20:00]	23	2	0	0	0	0	0	0	0	1	0
[20:00-21:00]	8	1	0	0	0	0	0	0	0	1	0
[21:00-22:00]	12	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	7	0	0	0	0	0	0	0	0	1	0
[23:00-00:00]	4	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	4	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	5	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	24	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	44	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	45	2	0	0	1	1	0	0	0	1	0
[09:00-10:00]	34	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	29	3	0	0	0	0	0	0	0	0	0
[11:00-12:00]	31	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	31	3	0	0	0	0	0	0	0	0	0
[13:00-14:00]	31	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	24	2	0	0	0	0	0	0	0	0	0
[15:00-16:00]	37	1	0	0	1	1	0	0	0	1	0
[16:00-17:00]	39	6	1	0	0	0	0	0	0	0	0
[17:00-18:00]	56	3	0	0	1	1	0	0	0	1	0
[18:00-19:00]	43	3	0	0	0	0	0	0	0	0	0
[19:00-20:00]	26	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	37	1	0	0	1	1	0	0	0	1	0
[21:00-22:00]	15	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	19	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	8	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	4	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	1	0	0	0	0	0	0
[02:00-03:00]	8	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	5	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	26	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	51	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	30	2	0	0	0	0	0	0	0	0	0
[09:00-10:00]	34	1	0	0	0	1	0	0	0	0	0
[10:00-11:00]	27	2	0	0	0	1	0	0	0	0	0
[11:00-12:00]	35	1	0	0	0	0	0	0	0	0	0
[12:00-13:00]	35	3	0	0	0	0	0	0	0	0	0
[13:00-14:00]	25	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	56	5	0	0	1	1	0	0	0	2	0
[15:00-16:00]	51	3	0	0	1	0	0	0	0	1	0
[16:00-17:00]	74	5	0	0	1	1	0	0	0	1	0
[17:00-18:00]	41	3	0	0	1	1	0	0	0	2	0
[18:00-19:00]	26	1	0	0	0	0	0	0	0	1	0
[19:00-20:00]	45	1	0	0	1	1	0	0	0	1	0
[20:00-21:00]	23	0	0	0	1	1	0	0	0	1	0
[21:00-22:00]	29	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	26	1	0	0	0	0	0	0	0	1	0
[23:00-00:00]	19	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	5	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	10	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	28	4	0	0	0	0	0	0	0	0	0
[08:00-09:00]	18	1	0	0	1	1	0	0	0	1	0
[09:00-10:00]	17	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	16	3	0	0	0	0	0	0	0	0	0
[11:00-12:00]	25	1	0	0	0	0	0	0	0	0	0
[12:00-13:00]	24	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	29	2	0	0	1	1	0	0	0	1	0
[14:00-15:00]	31	0	0	0	1	1	0	0	0	1	0
[15:00-16:00]	25	0	0	0	0	0	0	0	0	0	0
[16:00-17:00]	43	1	0	0	0	0	0	0	0	0	0
[17:00-18:00]	52	5	0	0	1	1	0	0	0	1	0
[18:00-19:00]	46	4	0	0	0	0	0	0	0	0	0
[19:00-20:00]	33	4	0	0	0	0	0	0	0	0	0
[20:00-21:00]	26	4	0	0	0	0	0	0	0	0	0
[21:00-22:00]	15	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	7	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	5	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	2	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	0	0	0	1	1	0	0	0	1	0
[05:00-06:00]	2	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	13	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	22	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	26	1	0	0	0	0	0	0	0	0	0
[09:00-10:00]	25	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	21	1	0	0	0	0	0	0	0	0	0
[11:00-12:00]	23	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	25	4	0	0	0	0	0	0	0	0	0
[13:00-14:00]	26	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	26	1	0	0	0	0	0	0	0	0	0
[15:00-16:00]	24	2	0	0	0	0	0	0	0	0	0
[16:00-17:00]	50	5	0	0	1	1	0	0	0	1	0
[17:00-18:00]	56	2	0	0	1	1	0	0	0	1	0
[18:00-19:00]	28	1	0	0	0	0	0	0	0	0	0
[19:00-20:00]	27	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	21	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	10	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	11	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	5	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	1	1	0	0	0	1	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	4	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	5	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	12	2	0	0	0	0	0	0	0	0	0
[08:00-09:00]	13	3	0	0	0	0	0	0	0	0	0
[09:00-10:00]	8	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	3	1	0	0	0	0	0	0	0	0	0
[11:00-12:00]	9	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	7	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	13	0	0	0	1	1	0	0	0	2	0
[14:00-15:00]	9	0	0	0	0	0	0	0	0	0	0
[15:00-16:00]	5	3	0	0	0	0	0	0	0	0	0
[16:00-17:00]	17	1	0	0	0	0	0	0	0	0	0
[17:00-18:00]	9	3	0	0	0	0	0	0	0	0	0
[18:00-19:00]	18	0	0	0	0	0	0	0	0	0	0
[19:00-20:00]	6	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	11	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	7	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	4	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	1	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	2	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	4	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	9	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	11	1	0	0	0	0	0	0	0	0	0
[09:00-10:00]	15	2	0	0	1	1	0	0	0	1	0
[10:00-11:00]	8	1	0	0	1	1	0	0	0	1	0
[11:00-12:00]	8	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	10	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	12	0	0	0	0	0	0	0	0	0	0
[14:00-15:00]	15	1	0	0	1	1	0	0	0	1	0
[15:00-16:00]	10	2	0	0	0	0	0	0	0	0	0
[16:00-17:00]	18	0	0	0	0	0	0	0	0	0	0
[17:00-18:00]	18	3	0	0	0	0	0	0	0	0	0
[18:00-19:00]	13	0	0	0	0	0	0	0	0	0	0
[19:00-20:00]	7	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	5	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	2	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	5	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	3	0	0	0	0	0	0	0	0	0	0

Location C11 - Magnetic St (EB) from Lincoln Ave to Front St

Date : Tuesday, 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	6	1	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	13	0	0	0	0	4	2	2	0	0	0	0	0
[06:00-07:00]	53	3	2	1	0	2	1	1	0	0	0	0	0
[07:00-08:00]	100	4	3	1	0	5	2	2	1	0	0	0	0
[08:00-09:00]	84	5	4	1	0	2	1	1	0	0	0	0	0
[09:00-10:00]	77	11	9	2	0	4	2	2	0	0	0	0	0
[10:00-11:00]	77	5	4	1	0	3	1	1	0	0	0	1	0
[11:00-12:00]	84	7	6	1	0	4	2	2	0	0	0	0	0
[12:00-13:00]	100	7	6	1	0	2	1	1	0	0	0	0	0
[13:00-14:00]	67	4	3	1	0	2	1	1	0	0	0	0	0
[14:00-15:00]	109	7	6	1	0	4	2	2	0	0	0	0	0
[15:00-16:00]	114	6	5	1	0	4	2	2	0	0	0	0	0
[16:00-17:00]	89	10	8	2	0	3	1	1	0	0	0	1	0
[17:00-18:00]	83	8	6	2	0	5	2	2	0	0	0	1	0
[18:00-19:00]	82	2	2	0	0	5	3	2	0	0	0	0	0
[19:00-20:00]	74	6	5	1	0	1	0	0	0	0	0	1	0
[20:00-21:00]	42	1	1	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	35	4	3	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	22	1	1	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	14	0	0	0	0	0	0	0	0	0	0	0	0

Location C11 - Magnetic St (EB) from Lincoln Ave to Front St

Date : Wednesday, 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	1	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	9	0	0	0	0	5	2	2	0	0	0	1	0
[06:00-07:00]	46	4	3	1	0	4	2	2	0	0	0	0	0
[07:00-08:00]	80	8	7	1	0	4	2	2	0	0	0	0	0
[08:00-09:00]	81	8	6	2	0	2	1	1	0	0	0	0	0
[09:00-10:00]	83	9	7	2	0	5	2	2	1	0	0	0	0
[10:00-11:00]	50	8	6	2	0	4	2	2	0	0	0	0	0
[11:00-12:00]	78	7	6	1	0	3	1	1	0	0	0	1	0
[12:00-13:00]	101	9	7	2	0	8	4	3	0	0	0	1	0
[13:00-14:00]	64	5	4	1	0	5	2	1	1	0	0	0	1
[14:00-15:00]	65	3	2	1	0	7	3	3	0	0	0	1	0
[15:00-16:00]	110	9	7	2	0	4	2	2	0	0	0	0	0
[16:00-17:00]	99	5	4	1	0	9	4	4	0	0	0	1	0
[17:00-18:00]	102	13	11	2	0	6	3	3	0	0	0	0	0
[18:00-19:00]	107	6	5	1	0	4	2	2	0	0	0	0	0
[19:00-20:00]	52	11	9	2	0	2	1	1	0	0	0	0	0
[20:00-21:00]	34	1	1	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	30	1	1	0	0	1	0	0	0	1	0	0	0
[22:00-23:00]	27	1	1	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	19	0	0	0	0	0	0	0	0	0	0	0	0

Location C11 - Magnetic St (WB) from Lincoln Ave to Front St

Date : Tuesday, 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	9	1	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	1	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	1	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	0	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	4	0	0	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	15	0	0	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	47	3	2	1	0	2	1	1	0	0	0	0	0
[08:00-09:00]	46	5	4	1	0	2	1	1	0	0	0	0	0
[09:00-10:00]	35	11	9	2	0	2	1	1	0	0	0	0	0
[10:00-11:00]	28	6	5	1	0	1	1	0	0	0	0	0	0
[11:00-12:00]	39	4	3	1	0	0	0	0	0	0	0	0	0
[12:00-13:00]	51	4	3	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	54	5	4	1	0	3	1	1	0	0	0	1	0
[14:00-15:00]	67	6	5	1	0	2	1	1	0	0	0	0	0
[15:00-16:00]	111	5	4	1	0	6	3	3	0	0	0	0	0
[16:00-17:00]	92	10	8	2	0	5	2	2	0	0	0	1	0
[17:00-18:00]	79	6	5	1	0	2	1	1	0	0	0	0	0
[18:00-19:00]	58	5	4	1	0	1	0	1	0	0	0	0	0
[19:00-20:00]	37	5	4	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	46	2	2	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	36	1	1	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	17	1	1	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	22	2	2	0	0	1	0	0	1	0	0	0	0

Location C11 - Magnetic St (WB) from Lincoln Ave to Front St

Date : Wednesday, 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	9	1	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	6	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	1	1	0	0	1	1	0	0	0	0	0	0
[05:00-06:00]	6	0	0	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	11	3	2	1	0	1	0	1	0	0	0	0	0
[07:00-08:00]	49	6	5	1	0	2	1	1	0	0	0	0	0
[08:00-09:00]	44	3	2	1	0	1	1	0	0	0	0	0	0
[09:00-10:00]	48	5	4	1	0	1	1	0	0	0	0	0	0
[10:00-11:00]	26	6	5	1	0	2	1	1	0	0	0	0	0
[11:00-12:00]	40	5	4	1	0	1	1	0	0	0	0	0	0
[12:00-13:00]	58	5	4	1	0	3	1	1	0	0	0	1	0
[13:00-14:00]	62	2	2	0	0	1	0	1	0	0	0	0	0
[14:00-15:00]	52	6	5	1	0	5	2	2	0	0	0	1	0
[15:00-16:00]	53	5	4	1	0	2	1	1	0	0	0	0	0
[16:00-17:00]	73	8	6	2	0	2	1	1	0	0	0	0	0
[17:00-18:00]	86	7	6	1	0	6	3	3	0	0	0	0	0
[18:00-19:00]	74	6	5	1	0	1	0	1	0	0	0	0	0
[19:00-20:00]	58	9	7	2	0	3	1	1	0	0	0	1	0
[20:00-21:00]	43	2	2	0	0	1	1	0	0	0	0	0	0
[21:00-22:00]	27	2	2	0	0	1	0	0	1	0	0	0	0
[22:00-23:00]	17	1	1	0	0	1	0	1	0	0	0	0	0
[23:00-00:00]	17	1	1	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	6	0	0	0	1	1	0	0	0	1	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	8	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	32	0	0	0	1	1	0	0	0	1	0
[06:00-07:00]	78	3	0	0	1	1	0	0	0	1	0
[07:00-08:00]	157	8	1	0	1	1	0	0	0	2	0
[08:00-09:00]	65	5	0	0	0	0	0	0	0	0	0
[09:00-10:00]	79	5	0	0	0	0	0	0	0	0	0
[10:00-11:00]	63	7	1	0	0	0	0	0	0	0	0
[11:00-12:00]	86	10	1	0	0	0	0	0	0	0	0
[12:00-13:00]	86	11	1	0	0	0	0	0	0	0	0
[13:00-14:00]	57	10	1	0	1	1	0	0	0	1	0
[14:00-15:00]	87	7	1	0	1	1	0	0	0	1	0
[15:00-16:00]	64	6	1	0	1	1	0	0	0	2	0
[16:00-17:00]	63	5	0	0	1	1	0	0	0	1	0
[17:00-18:00]	82	7	1	0	1	1	0	0	0	1	0
[18:00-19:00]	53	5	0	0	1	1	0	0	0	1	0
[19:00-20:00]	45	3	0	0	1	1	0	0	0	1	0
[20:00-21:00]	51	2	0	0	0	0	0	0	0	0	0
[21:00-22:00]	32	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	25	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	7	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	4	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	5	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	9	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	26	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	67	5	0	0	1	1	0	0	0	1	0
[07:00-08:00]	151	9	1	0	2	2	0	0	0	3	0
[08:00-09:00]	94	5	0	0	0	0	0	0	0	0	0
[09:00-10:00]	99	11	1	0	1	1	0	0	0	1	0
[10:00-11:00]	97	10	1	0	1	1	0	0	0	1	0
[11:00-12:00]	128	9	1	0	1	1	0	0	0	1	0
[12:00-13:00]	169	15	1	0	2	2	0	0	0	2	0
[13:00-14:00]	118	15	1	0	3	2	0	0	0	3	0
[14:00-15:00]	177	9	1	0	3	2	0	0	0	4	0
[15:00-16:00]	145	14	1	0	2	2	0	0	0	3	0
[16:00-17:00]	155	9	1	0	1	1	0	0	0	1	0
[17:00-18:00]	142	8	1	0	3	3	0	0	0	4	0
[18:00-19:00]	119	7	1	0	2	2	0	0	0	3	0
[19:00-20:00]	76	6	1	0	1	1	0	0	0	1	0
[20:00-21:00]	58	1	0	0	1	1	0	0	0	1	0
[21:00-22:00]	42	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	28	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	18	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	9	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	8	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	12	2	0	0	0	0	0	0	0	0	0
[06:00-07:00]	32	3	0	0	1	1	0	0	0	1	0
[07:00-08:00]	194	11	1	0	3	3	0	0	0	4	0
[08:00-09:00]	92	6	1	0	0	0	0	0	0	0	0
[09:00-10:00]	78	7	1	0	1	1	0	0	0	1	0
[10:00-11:00]	101	4	0	0	1	1	0	0	0	1	0
[11:00-12:00]	121	11	1	0	1	1	0	0	0	1	0
[12:00-13:00]	146	8	1	0	1	1	0	0	0	1	0
[13:00-14:00]	116	4	0	0	1	1	0	0	0	1	0
[14:00-15:00]	197	10	1	0	0	0	0	0	0	0	0
[15:00-16:00]	182	12	1	0	2	1	0	0	0	2	0
[16:00-17:00]	151	20	2	0	4	3	0	0	0	5	0
[17:00-18:00]	167	7	1	0	2	2	0	0	0	2	0
[18:00-19:00]	117	7	1	0	1	1	0	0	0	2	0
[19:00-20:00]	91	7	1	0	1	1	0	0	0	1	0
[20:00-21:00]	39	4	0	0	1	1	0	0	0	1	0
[21:00-22:00]	66	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	31	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	51	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	4	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	7	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	4	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	9	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	34	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	170	11	1	0	2	2	0	0	0	2	0
[08:00-09:00]	95	9	1	0	0	0	0	0	0	0	0
[09:00-10:00]	139	8	1	0	2	2	0	0	0	2	0
[10:00-11:00]	141	8	1	0	1	1	0	0	0	1	0
[11:00-12:00]	188	12	1	0	1	1	0	0	0	2	0
[12:00-13:00]	179	11	1	0	1	1	0	0	0	1	0
[13:00-14:00]	192	11	1	0	1	1	0	0	0	1	0
[14:00-15:00]	245	15	1	0	0	0	0	0	0	0	0
[15:00-16:00]	269	12	1	0	2	2	0	0	0	3	0
[16:00-17:00]	268	16	1	0	2	2	0	0	0	3	0
[17:00-18:00]	239	22	2	0	1	1	0	0	0	1	0
[18:00-19:00]	161	14	1	0	1	1	0	0	0	2	0
[19:00-20:00]	149	4	0	0	1	1	0	0	0	1	0
[20:00-21:00]	123	4	0	0	0	0	0	0	0	0	0
[21:00-22:00]	75	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	46	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	72	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	4	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	2	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	4	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	15	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	57	8	0	0	0	0	3	0	0	0	0
[08:00-09:00]	115	7	0	0	0	0	3	0	0	0	0
[09:00-10:00]	101	10	0	0	0	0	6	0	0	0	0
[10:00-11:00]	74	13	0	0	0	0	1	0	0	0	0
[11:00-12:00]	96	10	0	0	0	0	4	0	0	0	0
[12:00-13:00]	142	9	0	0	0	0	8	0	0	0	0
[13:00-14:00]	125	20	0	0	0	0	5	0	0	0	0
[14:00-15:00]	156	13	0	0	0	0	13	0	0	0	0
[15:00-16:00]	155	5	0	0	0	0	6	0	0	0	0
[16:00-17:00]	135	16	0	0	0	0	7	0	0	0	0
[17:00-18:00]	172	15	0	0	0	0	8	0	0	0	0
[18:00-19:00]	94	9	0	0	0	0	2	0	0	0	0
[19:00-20:00]	82	12	0	0	0	0	2	0	0	0	0
[20:00-21:00]	26	2	0	0	0	0	0	0	0	0	0
[21:00-22:00]	25	1	0	0	0	0	1	0	0	0	0
[22:00-23:00]	11	0	0	0	0	0	2	0	0	0	0
[23:00-00:00]	8	0	0	0	0	0	0	0	0	0	0

	PC Total	SU					MU				
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	4	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	11	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	72	8	0	0	0	0	0	0	0	0	0
[08:00-09:00]	76	4	0	0	0	0	7	0	0	0	0
[09:00-10:00]	65	15	0	0	0	0	5	0	0	0	0
[10:00-11:00]	70	6	0	0	0	0	4	0	0	0	0
[11:00-12:00]	58	5	0	0	0	0	1	0	0	0	0
[12:00-13:00]	70	11	0	0	0	0	4	0	0	0	0
[13:00-14:00]	78	3	0	0	0	0	3	0	0	0	0
[14:00-15:00]	96	7	0	0	0	0	5	0	0	0	0
[15:00-16:00]	84	6	0	0	0	0	7	0	0	0	0
[16:00-17:00]	73	1	0	0	0	0	4	0	0	0	0
[17:00-18:00]	102	7	0	0	0	0	4	0	0	0	0
[18:00-19:00]	65	2	0	0	0	0	1	0	0	0	0
[19:00-20:00]	38	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	23	0	0	0	0	0	2	0	0	0	0
[21:00-22:00]	20	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	12	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	6	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	1	0	1	0	0	0	0
[05:00-06:00]	1	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	3	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	56	3	0	0	1	0	1	0	0	0	0
[08:00-09:00]	48	4	0	0	1	0	1	0	0	0	0
[09:00-10:00]	66	7	0	0	1	0	1	0	0	0	0
[10:00-11:00]	57	6	0	0	0	0	0	0	0	0	0
[11:00-12:00]	83	6	0	0	0	0	0	0	0	0	0
[12:00-13:00]	99	10	0	0	1	0	1	0	0	0	0
[13:00-14:00]	78	10	0	0	1	0	1	0	0	0	0
[14:00-15:00]	101	7	0	0	1	0	1	0	0	0	0
[15:00-16:00]	98	10	0	0	1	0	1	0	0	0	0
[16:00-17:00]	95	8	0	0	2	0	2	0	0	0	0
[17:00-18:00]	114	10	0	0	3	0	3	0	0	0	0
[18:00-19:00]	53	8	0	0	4	0	4	0	0	0	0
[19:00-20:00]	62	7	0	0	1	0	1	0	0	0	0
[20:00-21:00]	34	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	22	1	0	0	1	0	1	0	0	0	0
[22:00-23:00]	16	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	11	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	1	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	8	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	80	4	0	0	0	0	0	0	0	0	0
[08:00-09:00]	51	2	0	0	1	0	1	0	0	0	0
[09:00-10:00]	75	5	0	0	1	0	1	0	0	0	0
[10:00-11:00]	75	6	0	0	0	0	0	0	0	0	0
[11:00-12:00]	86	4	0	0	1	0	1	0	0	0	0
[12:00-13:00]	110	11	0	0	2	0	2	0	0	0	0
[13:00-14:00]	95	5	0	0	1	0	1	0	0	0	0
[14:00-15:00]	111	10	0	0	1	0	1	0	0	0	0
[15:00-16:00]	100	12	0	0	1	0	1	0	0	0	0
[16:00-17:00]	100	9	0	0	1	0	1	0	0	0	0
[17:00-18:00]	101	4	0	0	2	0	2	0	0	0	0
[18:00-19:00]	66	2	0	0	1	0	1	0	0	0	0
[19:00-20:00]	62	1	0	0	1	0	1	0	0	0	0
[20:00-21:00]	42	0	0	0	1	0	1	0	0	0	0
[21:00-22:00]	30	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	19	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	13	1	0	0	0	0	0	0	0	0	0

Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	7	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	23	2	0	0	1	1	0	0	0	1	0
[06:00-07:00]	54	5	0	0	1	1	0	0	0	1	0
[07:00-08:00]	293	16	1	0	4	3	0	0	0	4	0
[08:00-09:00]	192	5	0	0	1	1	0	0	0	1	0
[09:00-10:00]	171	4	0	0	1	1	0	0	0	1	0
[10:00-11:00]	147	5	0	0	0	0	0	0	0	0	0
[11:00-12:00]	202	5	0	0	1	1	0	0	0	1	0
[12:00-13:00]	229	6	1	0	2	1	0	0	0	2	0
[13:00-14:00]	202	11	1	0	0	0	0	0	0	0	0
[14:00-15:00]	189	4	0	0	2	2	0	0	0	2	0
[15:00-16:00]	162	13	1	0	2	1	0	0	0	2	0
[16:00-17:00]	172	9	1	0	2	1	0	0	0	2	0
[17:00-18:00]	200	11	1	0	3	2	0	0	0	3	0
[18:00-19:00]	127	5	0	0	1	1	0	0	0	1	0
[19:00-20:00]	109	6	1	0	2	1	0	0	0	2	0
[20:00-21:00]	70	2	0	0	2	1	0	0	0	2	0
[21:00-22:00]	42	3	0	0	1	1	0	0	0	1	0
[22:00-23:00]	32	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	18	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	12	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	6	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	23	0	0	0	1	1	0	0	0	1	0
[06:00-07:00]	67	4	0	0	0	0	0	0	0	0	0
[07:00-08:00]	324	7	1	0	4	3	0	0	0	5	0
[08:00-09:00]	174	6	1	0	1	1	0	0	0	1	0
[09:00-10:00]	201	6	1	0	2	2	0	0	0	2	0
[10:00-11:00]	150	7	1	0	0	0	0	0	0	0	0
[11:00-12:00]	190	5	0	0	1	1	0	0	0	1	0
[12:00-13:00]	262	4	0	0	1	1	0	0	0	1	0
[13:00-14:00]	169	5	0	0	1	1	0	0	0	1	0
[14:00-15:00]	225	6	1	0	2	2	0	0	0	2	0
[15:00-16:00]	236	5	0	0	1	1	0	0	0	1	0
[16:00-17:00]	214	4	0	0	2	1	0	0	0	2	0
[17:00-18:00]	183	8	1	0	2	2	0	0	0	2	0
[18:00-19:00]	118	14	1	0	2	2	0	0	0	2	0
[19:00-20:00]	94	6	1	0	2	1	0	0	0	2	0
[20:00-21:00]	78	5	0	0	0	0	0	0	0	0	0
[21:00-22:00]	43	3	0	0	0	0	0	0	0	0	0
[22:00-23:00]	31	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	18	0	0	0	0	0	0	0	0	0	0

	PC Total	SU					MU				
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	10	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	20	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	27	2	0	0	0	0	0	0	0	0	0
[07:00-08:00]	127	11	1	0	1	1	0	0	0	2	0
[08:00-09:00]	120	5	0	0	1	1	0	0	0	1	0
[09:00-10:00]	133	9	1	0	2	2	0	0	0	2	0
[10:00-11:00]	132	5	0	0	1	1	0	0	0	2	0
[11:00-12:00]	198	11	1	0	3	2	0	0	0	4	0
[12:00-13:00]	253	17	2	0	1	1	0	0	0	1	0
[13:00-14:00]	179	11	1	0	1	1	0	0	0	1	0
[14:00-15:00]	323	17	2	0	4	4	0	0	0	5	0
[15:00-16:00]	257	10	1	0	2	2	0	0	0	3	0
[16:00-17:00]	288	12	1	0	2	2	0	0	0	2	0
[17:00-18:00]	303	10	1	0	1	1	0	0	0	2	0
[18:00-19:00]	196	7	1	0	1	1	0	0	0	1	0
[19:00-20:00]	168	3	0	0	2	1	0	0	0	2	0
[20:00-21:00]	82	3	0	0	0	0	0	0	0	0	0
[21:00-22:00]	64	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	36	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	28	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	7	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	7	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	4	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	13	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	36	2	0	0	0	0	0	0	0	0	0
[07:00-08:00]	122	7	1	0	2	2	0	0	0	2	0
[08:00-09:00]	107	5	0	0	1	1	0	0	0	1	0
[09:00-10:00]	139	6	1	0	1	1	0	0	0	2	0
[10:00-11:00]	116	10	1	0	1	1	0	0	0	1	0
[11:00-12:00]	166	9	1	0	1	1	0	0	0	1	0
[12:00-13:00]	208	14	1	0	2	2	0	0	0	3	0
[13:00-14:00]	155	9	1	0	2	2	0	0	0	3	0
[14:00-15:00]	257	16	1	0	3	2	0	0	0	4	0
[15:00-16:00]	238	16	1	0	2	2	0	0	0	3	0
[16:00-17:00]	261	7	1	0	2	1	0	0	0	2	0
[17:00-18:00]	222	5	0	0	1	1	0	0	0	1	0
[18:00-19:00]	176	6	1	0	0	0	0	0	0	0	0
[19:00-20:00]	158	9	1	0	1	1	0	0	0	2	0
[20:00-21:00]	78	3	0	0	1	1	0	0	0	1	0
[21:00-22:00]	54	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	30	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	41	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	13	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	7	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	27	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	65	5	1	0	0	0	1	0	0	1	1
[07:00-08:00]	104	7	1	0	0	0	2	0	0	1	1
[08:00-09:00]	94	8	1	0	0	0	0	0	0	0	1
[09:00-10:00]	93	3	0	0	1	0	2	0	0	1	1
[10:00-11:00]	86	3	0	0	0	0	1	0	0	0	1
[11:00-12:00]	136	5	0	0	0	0	2	0	0	1	1
[12:00-13:00]	141	3	0	0	0	0	1	0	0	0	1
[13:00-14:00]	142	6	1	0	1	0	2	0	0	1	1
[14:00-15:00]	147	3	0	0	0	0	2	0	0	1	1
[15:00-16:00]	160	7	1	0	0	0	1	0	0	1	1
[16:00-17:00]	189	5	1	0	1	0	2	0	0	1	1
[17:00-18:00]	182	2	0	0	0	0	1	0	0	1	1
[18:00-19:00]	100	4	0	0	0	0	0	0	0	0	1
[19:00-20:00]	88	2	0	0	0	0	0	0	0	0	1
[20:00-21:00]	68	0	0	0	0	0	1	0	0	0	1
[21:00-22:00]	56	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	37	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	19	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	12	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	4	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	2	0	0	0	0	0	0	0	0	0
[05:00-06:00]	29	2	0	0	0	0	1	0	0	1	1
[06:00-07:00]	60	3	0	0	1	0	3	0	0	1	2
[07:00-08:00]	111	7	1	0	1	0	2	0	0	1	1
[08:00-09:00]	94	1	0	0	1	0	3	0	0	1	2
[09:00-10:00]	98	5	1	0	0	0	0	0	0	0	0
[10:00-11:00]	94	4	0	0	0	0	1	0	0	0	1
[11:00-12:00]	89	5	1	0	0	0	0	0	0	0	0
[12:00-13:00]	109	4	0	0	0	0	1	0	0	1	1
[13:00-14:00]	140	4	0	0	0	0	2	0	0	1	1
[14:00-15:00]	127	10	1	0	1	0	2	0	0	1	1
[15:00-16:00]	156	6	1	0	0	0	1	0	0	1	1
[16:00-17:00]	187	5	0	0	1	0	3	0	0	1	2
[17:00-18:00]	170	5	0	0	0	0	0	0	0	0	0
[18:00-19:00]	112	3	0	0	0	0	1	0	0	0	1
[19:00-20:00]	89	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	66	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	45	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	37	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	24	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	2	2	0	0	0	0	0	0	0	0	0
[01:00-02:00]	6	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	5	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	19	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	32	2	0	0	0	0	0	0	0	0	0
[07:00-08:00]	100	9	1	0	1	0	3	0	0	1	2
[08:00-09:00]	85	9	1	0	1	0	1	0	0	1	1
[09:00-10:00]	81	6	1	0	0	0	0	0	0	0	0
[10:00-11:00]	88	8	1	0	1	0	2	0	0	1	1
[11:00-12:00]	119	7	1	0	1	0	3	0	0	1	2
[12:00-13:00]	140	10	1	0	1	0	2	0	0	1	1
[13:00-14:00]	107	12	1	0	1	0	2	0	0	1	1
[14:00-15:00]	128	12	1	0	1	0	2	0	0	1	1
[15:00-16:00]	145	14	1	0	1	0	3	0	0	1	2
[16:00-17:00]	184	9	1	0	0	0	2	0	0	1	1
[17:00-18:00]	132	7	1	0	1	0	4	0	0	1	2
[18:00-19:00]	120	10	1	0	0	0	2	0	0	1	1
[19:00-20:00]	75	6	1	0	1	0	2	0	0	1	1
[20:00-21:00]	55	3	0	0	0	0	1	0	0	0	1
[21:00-22:00]	30	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	23	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	31	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	11	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	14	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	27	3	0	0	0	0	2	0	0	1	1
[07:00-08:00]	99	10	1	0	0	0	2	0	0	1	1
[08:00-09:00]	108	7	1	0	0	0	1	0	0	0	1
[09:00-10:00]	94	9	1	0	0	0	0	0	0	0	0
[10:00-11:00]	94	10	1	0	0	0	1	0	0	0	1
[11:00-12:00]	105	11	1	0	0	0	1	0	0	0	1
[12:00-13:00]	131	6	1	0	0	0	2	0	0	1	1
[13:00-14:00]	118	8	1	0	1	0	3	0	0	1	2
[14:00-15:00]	127	8	1	0	1	0	3	0	0	1	2
[15:00-16:00]	166	13	1	0	1	0	2	0	0	1	1
[16:00-17:00]	151	14	1	0	1	0	3	0	0	1	2
[17:00-18:00]	123	11	1	0	1	0	3	0	0	1	2
[18:00-19:00]	119	7	1	0	1	0	2	0	0	1	1
[19:00-20:00]	93	6	1	0	1	0	2	0	0	1	1
[20:00-21:00]	64	3	0	0	0	0	0	0	0	0	0
[21:00-22:00]	26	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	15	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	14	1	0	0	0	0	0	0	0	0	0

	PC Total	SU					MU				
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	14	0	0	0	1	0	0	0	0	0	0
[01:00-02:00]	12	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	8	0	0	0	1	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	10	0	0	0	1	0	0	0	0	0	0
[05:00-06:00]	50	2	0	0	1	0	0	0	0	0	0
[06:00-07:00]	140	11	2	1	5	1	0	0	0	3	0
[07:00-08:00]	407	19	3	2	12	2	0	0	0	7	1
[08:00-09:00]	328	25	4	3	4	1	0	0	0	2	0
[09:00-10:00]	262	14	2	2	7	1	0	0	0	4	1
[10:00-11:00]	252	18	3	2	6	1	0	0	0	4	1
[11:00-12:00]	333	20	3	3	4	1	0	0	0	2	0
[12:00-13:00]	372	19	3	2	5	1	0	0	0	3	1
[13:00-14:00]	335	14	2	2	6	1	0	0	0	4	1
[14:00-15:00]	313	12	2	1	10	2	0	0	0	6	1
[15:00-16:00]	332	16	2	2	7	1	0	0	0	4	1
[16:00-17:00]	332	15	2	2	5	1	0	0	0	3	0
[17:00-18:00]	345	15	2	2	8	1	0	0	0	5	1
[18:00-19:00]	245	8	1	1	6	1	0	0	0	3	1
[19:00-20:00]	204	8	1	1	3	1	0	0	0	2	0
[20:00-21:00]	155	6	1	1	2	0	0	0	0	1	0
[21:00-22:00]	118	6	1	1	1	0	0	0	0	1	0
[22:00-23:00]	80	3	0	0	1	0	0	0	0	1	0
[23:00-00:00]	39	0	0	0	2	0	0	0	0	1	0

	PC Total		SU					MU
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11
[00:00-01:00]	33	0	0	0	0	0	0	0
[01:00-02:00]	9	0	0	0	1	0	0	0
[02:00-03:00]	9	0	0	0	0	0	0	0
[03:00-04:00]	4	1	0	0	0	0	0	0
[04:00-05:00]	12	1	0	0	1	0	0	0
[05:00-06:00]	51	4	1	0	1	0	0	0
[06:00-07:00]	153	12	2	1	2	0	0	0
[07:00-08:00]	434	18	3	2	15	3	1	0
[08:00-09:00]	323	13	2	2	6	1	0	0
[09:00-10:00]	317	24	4	3	8	1	0	0
[10:00-11:00]	276	15	2	2	5	1	0	0
[11:00-12:00]	283	13	2	2	3	1	0	0
[12:00-13:00]	379	17	2	2	4	1	0	0
[13:00-14:00]	282	22	3	3	8	1	0	0
[14:00-15:00]	325	12	2	1	6	1	0	0
[15:00-16:00]	346	24	4	3	7	1	0	0
[16:00-17:00]	352	17	3	2	6	1	0	0
[17:00-18:00]	344	14	2	2	7	1	0	0
[18:00-19:00]	261	7	1	1	2	0	0	0
[19:00-20:00]	217	6	1	1	3	0	0	0
[20:00-21:00]	174	9	1	1	4	1	0	0
[21:00-22:00]	103	2	0	0	2	0	0	0
[22:00-23:00]	78	2	0	0	1	0	0	0
[23:00-00:00]	55	0	0	0	1	0	0	0

Class 12	Class 9	Class 13
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	1	0
0	1	0
0	9	2
0	4	1
0	5	1
0	3	1
0	2	0
0	2	0
0	5	1
0	3	1
0	4	1
0	4	1
0	4	1
0	1	0
0	2	0
0	2	0
0	1	0
0	0	0
0	0	0

	PC Total	SU					MU				
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	14	0	0	0	1	0	0	0	0	0	0
[01:00-02:00]	12	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	8	0	0	0	1	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	10	0	0	0	1	0	0	0	0	0	0
[05:00-06:00]	50	2	0	0	1	0	0	0	0	0	0
[06:00-07:00]	140	11	2	1	5	1	0	0	0	3	0
[07:00-08:00]	407	19	3	2	12	2	0	0	0	7	1
[08:00-09:00]	328	25	4	3	4	1	0	0	0	2	0
[09:00-10:00]	262	14	2	2	7	1	0	0	0	4	1
[10:00-11:00]	252	18	3	2	6	1	0	0	0	4	1
[11:00-12:00]	333	20	3	3	4	1	0	0	0	2	0
[12:00-13:00]	372	19	3	2	5	1	0	0	0	3	1
[13:00-14:00]	335	14	2	2	6	1	0	0	0	4	1
[14:00-15:00]	313	12	2	1	10	2	0	0	0	6	1
[15:00-16:00]	332	16	2	2	7	1	0	0	0	4	1
[16:00-17:00]	332	15	2	2	5	1	0	0	0	3	0
[17:00-18:00]	345	15	2	2	8	1	0	0	0	5	1
[18:00-19:00]	245	8	1	1	6	1	0	0	0	3	1
[19:00-20:00]	204	8	1	1	3	1	0	0	0	2	0
[20:00-21:00]	155	6	1	1	2	0	0	0	0	1	0
[21:00-22:00]	118	6	1	1	1	0	0	0	0	1	0
[22:00-23:00]	80	3	0	0	1	0	0	0	0	1	0
[23:00-00:00]	39	0	0	0	2	0	0	0	0	1	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	33	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	9	0	0	0	1	0	0	0	0	0	0
[02:00-03:00]	9	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	4	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	12	1	0	0	1	0	0	0	0	0	0
[05:00-06:00]	51	4	1	0	1	0	0	0	0	1	0
[06:00-07:00]	153	12	2	1	2	0	0	0	0	1	0
[07:00-08:00]	434	18	3	2	15	3	1	0	0	9	2
[08:00-09:00]	323	13	2	2	6	1	0	0	0	4	1
[09:00-10:00]	317	24	4	3	8	1	0	0	0	5	1
[10:00-11:00]	276	15	2	2	5	1	0	0	0	3	1
[11:00-12:00]	283	13	2	2	3	1	0	0	0	2	0
[12:00-13:00]	379	17	2	2	4	1	0	0	0	2	0
[13:00-14:00]	282	22	3	3	8	1	0	0	0	5	1
[14:00-15:00]	325	12	2	1	6	1	0	0	0	3	1
[15:00-16:00]	346	24	4	3	7	1	0	0	0	4	1
[16:00-17:00]	352	17	3	2	6	1	0	0	0	4	1
[17:00-18:00]	344	14	2	2	7	1	0	0	0	4	1
[18:00-19:00]	261	7	1	1	2	0	0	0	0	1	0
[19:00-20:00]	217	6	1	1	3	0	0	0	0	2	0
[20:00-21:00]	174	9	1	1	4	1	0	0	0	2	0
[21:00-22:00]	103	2	0	0	2	0	0	0	0	1	0
[22:00-23:00]	78	2	0	0	1	0	0	0	0	0	0
[23:00-00:00]	55	0	0	0	1	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	4	1	0	0	0	1	0	0	0	0	0
[01:00-02:00]	5	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	5	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	35	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	65	0	0	0	0	1	0	0	0	0	0
[07:00-08:00]	151	3	0	0	0	2	0	0	0	0	0
[08:00-09:00]	114	2	0	0	0	3	0	0	0	0	0
[09:00-10:00]	107	2	0	0	0	3	0	0	0	0	0
[10:00-11:00]	80	3	0	0	0	1	0	0	0	0	0
[11:00-12:00]	74	1	0	0	0	2	0	0	0	0	0
[12:00-13:00]	98	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	96	1	0	0	0	1	0	0	0	0	0
[14:00-15:00]	106	2	0	0	0	4	0	0	0	0	0
[15:00-16:00]	129	4	0	0	0	1	0	0	0	0	0
[16:00-17:00]	147	2	0	0	0	0	0	0	0	0	0
[17:00-18:00]	128	2	0	0	0	3	0	0	0	0	0
[18:00-19:00]	107	0	0	0	0	0	0	0	0	0	0
[19:00-20:00]	86	2	0	0	0	0	0	0	0	0	0
[20:00-21:00]	32	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	25	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	26	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	12	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	31	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	58	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	162	2	0	0	0	3	0	0	0	0	0
[08:00-09:00]	142	6	0	0	0	1	0	0	0	0	0
[09:00-10:00]	88	3	0	0	0	0	0	0	0	0	0
[10:00-11:00]	75	6	0	0	0	0	0	0	0	0	0
[11:00-12:00]	73	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	103	5	0	0	0	0	0	0	0	0	0
[13:00-14:00]	77	3	0	0	0	0	0	0	0	0	0
[14:00-15:00]	107	7	0	0	0	1	0	0	0	0	0
[15:00-16:00]	113	6	0	0	0	1	0	0	0	0	0
[16:00-17:00]	150	4	0	0	0	2	0	0	0	0	0
[17:00-18:00]	130	1	0	0	0	2	0	0	0	0	0
[18:00-19:00]	110	1	0	0	0	0	0	0	0	0	0
[19:00-20:00]	89	1	0	0	0	1	0	0	0	0	0
[20:00-21:00]	52	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	29	1	0	0	0	1	0	0	0	0	0
[22:00-23:00]	20	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	10	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	7	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	5	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	9	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	23	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	84	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	76	3	0	0	0	3	0	0	0	0	0
[09:00-10:00]	53	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	56	2	0	0	0	0	0	0	0	0	0
[11:00-12:00]	65	8	0	0	0	0	0	0	0	0	0
[12:00-13:00]	108	1	0	0	0	3	0	0	0	0	0
[13:00-14:00]	92	5	0	0	0	2	0	0	0	0	0
[14:00-15:00]	106	3	0	0	0	0	0	0	0	0	0
[15:00-16:00]	141	4	0	0	0	1	0	0	0	0	0
[16:00-17:00]	156	2	0	0	0	5	0	0	0	0	0
[17:00-18:00]	160	4	0	0	0	2	0	0	0	0	0
[18:00-19:00]	106	3	0	0	0	0	0	0	0	0	0
[19:00-20:00]	84	5	0	0	0	0	0	0	0	0	0
[20:00-21:00]	73	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	46	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	32	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	19	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	14	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	8	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	26	2	0	0	0	0	0	0	0	0	0
[07:00-08:00]	56	3	0	0	0	2	0	0	0	0	0
[08:00-09:00]	84	3	0	0	0	2	0	0	0	0	0
[09:00-10:00]	64	2	0	0	0	0	0	0	0	0	0
[10:00-11:00]	42	5	0	0	0	1	0	0	0	0	0
[11:00-12:00]	64	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	94	7	0	0	0	1	0	0	0	0	0
[13:00-14:00]	88	3	0	0	0	2	0	0	0	0	0
[14:00-15:00]	108	9	0	0	0	3	0	0	0	0	0
[15:00-16:00]	128	3	0	0	0	3	0	0	0	0	0
[16:00-17:00]	169	11	0	0	0	3	0	0	0	0	0
[17:00-18:00]	163	9	0	0	0	1	0	0	0	0	0
[18:00-19:00]	97	7	0	0	0	0	0	0	0	0	0
[19:00-20:00]	82	6	0	0	0	0	0	0	0	0	0
[20:00-21:00]	72	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	39	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	30	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	20	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	11	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	15	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	42	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	127	8	0	0	4	0	0	0	0	0	0
[07:00-08:00]	262	20	0	1	24	1	0	0	0	0	0
[08:00-09:00]	212	20	0	1	11	1	0	0	0	0	0
[09:00-10:00]	151	13	0	1	11	1	0	0	0	0	0
[10:00-11:00]	157	9	0	0	6	0	0	0	0	0	0
[11:00-12:00]	127	12	0	1	9	1	0	0	0	0	0
[12:00-13:00]	140	13	0	1	8	0	0	0	0	0	0
[13:00-14:00]	155	8	0	0	8	0	0	0	0	0	0
[14:00-15:00]	181	9	0	0	13	1	0	0	0	0	0
[15:00-16:00]	142	13	0	1	13	1	0	0	0	0	0
[16:00-17:00]	143	14	0	1	9	0	0	0	0	0	0
[17:00-18:00]	158	19	0	1	7	0	0	0	0	0	0
[18:00-19:00]	118	6	0	0	5	0	0	0	0	0	0
[19:00-20:00]	83	8	0	0	1	0	0	0	0	0	0
[20:00-21:00]	73	1	0	0	2	0	0	0	0	0	0
[21:00-22:00]	34	3	0	0	1	0	0	0	0	0	0
[22:00-23:00]	28	1	0	0	1	0	0	0	0	0	0
[23:00-00:00]	20	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	21	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	6	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	15	1	0	0	0	0	1	0	0	1	2
[06:00-07:00]	36	0	0	0	0	0	0	0	0	0	1
[07:00-08:00]	147	5	1	0	1	0	1	0	0	1	6
[08:00-09:00]	89	9	1	1	0	0	0	0	0	0	1
[09:00-10:00]	114	7	1	0	0	0	0	0	0	0	2
[10:00-11:00]	92	12	2	1	0	0	1	0	0	1	4
[11:00-12:00]	156	8	1	1	0	0	0	0	0	0	0
[12:00-13:00]	214	8	1	1	0	0	0	0	0	0	1
[13:00-14:00]	186	9	1	1	0	0	1	0	0	1	3
[14:00-15:00]	159	18	3	1	1	1	3	0	0	2	11
[15:00-16:00]	171	12	2	1	1	1	1	0	0	1	6
[16:00-17:00]	317	13	2	1	1	0	2	0	0	1	6
[17:00-18:00]	339	9	1	1	0	0	0	0	0	0	2
[18:00-19:00]	185	2	0	0	0	0	0	0	0	0	1
[19:00-20:00]	175	5	1	0	0	0	0	0	0	0	1
[20:00-21:00]	119	9	1	1	0	0	0	0	0	0	1
[21:00-22:00]	89	7	1	0	0	0	0	0	0	0	1
[22:00-23:00]	57	1	0	0	0	0	0	0	0	0	1
[23:00-00:00]	42	5	1	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	16	1	0	0	0	0	0	0	0	0	1
[01:00-02:00]	9	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	7	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	5	0	0	0	0	0	0	0	0	0	1
[05:00-06:00]	13	2	0	0	0	0	0	0	0	0	1
[06:00-07:00]	38	3	0	0	0	0	0	0	0	0	2
[07:00-08:00]	152	7	1	0	0	0	1	0	0	1	3
[08:00-09:00]	108	6	1	0	0	0	0	0	0	0	1
[09:00-10:00]	113	7	1	0	0	0	0	0	0	0	1
[10:00-11:00]	84	16	2	1	0	0	0	0	0	0	2
[11:00-12:00]	151	15	2	1	0	0	1	0	0	1	3
[12:00-13:00]	157	15	2	1	1	1	2	0	0	1	7
[13:00-14:00]	110	16	2	1	1	1	1	0	0	1	5
[14:00-15:00]	174	26	4	2	1	1	2	0	0	2	9
[15:00-16:00]	283	12	2	1	0	0	0	0	0	0	2
[16:00-17:00]	305	12	2	1	1	1	1	0	0	1	5
[17:00-18:00]	313	11	2	1	0	0	0	0	0	0	1
[18:00-19:00]	183	5	1	0	0	0	0	0	0	0	1
[19:00-20:00]	158	7	1	0	0	0	0	0	0	0	2
[20:00-21:00]	116	8	1	1	0	0	0	0	0	0	1
[21:00-22:00]	71	4	1	0	0	0	0	0	0	0	1
[22:00-23:00]	35	5	1	0	0	0	0	0	0	0	0
[23:00-00:00]	37	3	0	0	0	0	0	0	0	0	1

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	11	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	5	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	18	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	48	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	195	9	1	1	0	0	1	0	0	1	2
[07:00-08:00]	346	14	2	1	1	1	2	0	0	1	9
[08:00-09:00]	263	9	1	1	1	1	2	0	0	1	7
[09:00-10:00]	248	16	2	1	0	0	1	0	0	1	4
[10:00-11:00]	172	14	2	1	1	1	1	0	0	1	6
[11:00-12:00]	170	12	2	1	0	0	1	0	0	0	2
[12:00-13:00]	182	18	3	1	0	0	2	0	0	1	6
[13:00-14:00]	171	10	1	1	0	0	2	0	0	1	6
[14:00-15:00]	210	14	2	1	1	1	2	0	0	1	8
[15:00-16:00]	207	14	2	1	0	0	1	0	0	1	4
[16:00-17:00]	187	11	2	1	1	1	1	0	0	1	5
[17:00-18:00]	216	13	2	1	0	0	1	0	0	1	3
[18:00-19:00]	156	10	1	1	0	0	0	0	0	0	1
[19:00-20:00]	117	7	1	0	0	0	1	0	0	1	2
[20:00-21:00]	73	2	0	0	0	0	0	0	0	0	1
[21:00-22:00]	56	2	0	0	0	0	0	0	0	0	2
[22:00-23:00]	68	3	0	0	0	0	0	0	0	0	2
[23:00-00:00]	27	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	18	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	9	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	2	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	19	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	48	3	0	0	0	0	0	0	0	0	1
[06:00-07:00]	200	7	1	0	0	0	1	0	0	1	3
[07:00-08:00]	374	17	2	1	1	1	2	0	0	2	9
[08:00-09:00]	279	21	3	1	0	0	2	0	0	1	6
[09:00-10:00]	264	18	3	1	1	1	2	0	0	1	9
[10:00-11:00]	192	10	1	1	0	0	1	0	0	1	5
[11:00-12:00]	184	15	2	1	0	0	1	0	0	1	3
[12:00-13:00]	200	11	2	1	0	0	1	0	0	1	5
[13:00-14:00]	189	7	1	0	0	0	0	0	0	0	2
[14:00-15:00]	233	14	2	1	0	0	1	0	0	1	4
[15:00-16:00]	207	10	1	1	1	1	2	0	0	1	7
[16:00-17:00]	178	8	1	1	0	0	1	0	0	1	4
[17:00-18:00]	219	13	2	1	0	0	1	0	0	0	2
[18:00-19:00]	164	5	1	0	0	0	1	0	0	0	2
[19:00-20:00]	113	7	1	0	0	0	1	0	0	0	2
[20:00-21:00]	87	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	57	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	49	2	0	0	0	0	0	0	0	0	1
[23:00-00:00]	19	0	0	0	0	0	0	0	0	0	1

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	21	0	0	0	1	0	0	0	0	0	0
[01:00-02:00]	9	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	7	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	10	3	0	0	2	0	0	0	0	0	0
[06:00-07:00]	32	4	0	0	5	0	0	0	0	0	0
[07:00-08:00]	125	7	0	0	6	1	0	0	0	0	0
[08:00-09:00]	130	5	0	0	2	0	0	0	0	0	0
[09:00-10:00]	147	7	0	0	1	0	0	0	0	0	0
[10:00-11:00]	152	7	0	0	4	0	0	0	0	0	0
[11:00-12:00]	188	7	0	0	4	0	0	0	0	0	0
[12:00-13:00]	215	8	0	0	6	1	0	0	0	0	0
[13:00-14:00]	190	7	0	0	6	1	0	0	0	0	0
[14:00-15:00]	232	10	0	1	9	1	0	0	0	0	0
[15:00-16:00]	315	15	0	1	13	1	0	0	0	0	0
[16:00-17:00]	304	22	0	1	11	1	0	0	0	0	0
[17:00-18:00]	294	15	0	1	13	1	0	0	0	0	0
[18:00-19:00]	194	12	0	1	6	1	0	0	0	0	0
[19:00-20:00]	167	11	0	1	6	1	0	0	0	0	0
[20:00-21:00]	139	6	0	0	1	0	0	0	0	0	0
[21:00-22:00]	88	2	0	0	2	0	0	0	0	0	0
[22:00-23:00]	53	7	0	0	4	0	0	0	0	0	0
[23:00-00:00]	65	1	0	0	1	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	25	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	11	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	8	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	10	0	0	0	2	0	0	0	0	0	0
[06:00-07:00]	35	4	0	0	3	0	0	0	0	0	0
[07:00-08:00]	135	13	0	1	7	1	0	0	0	0	0
[08:00-09:00]	110	6	0	0	4	0	0	0	0	0	0
[09:00-10:00]	148	7	0	0	2	0	0	0	0	0	0
[10:00-11:00]	104	13	0	1	0	0	0	0	0	0	0
[11:00-12:00]	181	6	0	0	2	0	0	0	0	0	0
[12:00-13:00]	195	8	0	0	4	0	0	0	0	0	0
[13:00-14:00]	183	7	0	0	5	0	0	0	0	0	0
[14:00-15:00]	250	4	0	0	8	1	0	0	0	0	0
[15:00-16:00]	343	24	0	1	13	1	0	0	0	0	0
[16:00-17:00]	348	20	0	1	10	1	0	0	0	0	0
[17:00-18:00]	271	7	0	0	9	1	0	0	0	0	0
[18:00-19:00]	164	7	0	0	4	0	0	0	0	0	0
[19:00-20:00]	166	10	0	1	8	1	0	0	0	0	0
[20:00-21:00]	119	6	0	0	4	0	0	0	0	0	0
[21:00-22:00]	83	5	0	0	1	0	0	0	0	0	0
[22:00-23:00]	56	1	0	0	1	0	0	0	0	0	0
[23:00-00:00]	61	1	0	0	1	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	1	0	0	0	0	0	0
[05:00-06:00]	10	1	0	0	1	0	0	0	0	0	0
[06:00-07:00]	12	1	0	0	1	0	0	0	0	0	0
[07:00-08:00]	39	4	0	0	1	0	0	0	0	0	0
[08:00-09:00]	34	3	0	0	1	0	0	0	0	0	0
[09:00-10:00]	28	5	0	0	2	0	0	0	0	0	0
[10:00-11:00]	24	4	0	0	1	0	0	0	0	0	0
[11:00-12:00]	30	3	0	0	1	0	0	0	0	0	0
[12:00-13:00]	23	6	0	0	1	0	0	0	0	0	0
[13:00-14:00]	38	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	31	6	0	0	1	0	0	0	0	0	0
[15:00-16:00]	40	4	0	0	1	0	0	0	0	0	0
[16:00-17:00]	29	4	0	0	1	0	0	0	0	0	0
[17:00-18:00]	52	4	0	0	0	0	0	0	0	0	0
[18:00-19:00]	43	1	0	0	1	0	0	0	0	0	0
[19:00-20:00]	26	1	0	0	1	0	0	0	0	0	0
[20:00-21:00]	17	1	0	0	1	0	0	0	0	0	0
[21:00-22:00]	10	2	0	0	3	1	0	0	0	0	0
[22:00-23:00]	8	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	2	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	4	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	11	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	15	2	0	0	1	0	0	0	0	0	0
[07:00-08:00]	34	4	0	0	1	0	0	0	0	0	0
[08:00-09:00]	40	4	0	0	1	0	0	0	0	0	0
[09:00-10:00]	39	6	0	0	1	0	0	0	0	0	0
[10:00-11:00]	20	3	0	0	1	0	0	0	0	0	0
[11:00-12:00]	27	3	0	0	0	0	0	0	0	0	0
[12:00-13:00]	40	5	0	0	1	0	0	0	0	0	0
[13:00-14:00]	40	4	0	0	1	0	0	0	0	0	0
[14:00-15:00]	33	6	0	0	1	0	0	0	0	0	0
[15:00-16:00]	47	4	0	0	1	0	0	0	0	0	0
[16:00-17:00]	58	6	0	0	1	0	0	0	0	0	0
[17:00-18:00]	64	5	0	0	1	0	0	0	0	0	0
[18:00-19:00]	47	2	0	0	2	0	0	0	0	0	0
[19:00-20:00]	19	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	18	1	0	0	1	0	0	0	0	0	0
[21:00-22:00]	10	1	0	0	1	0	0	0	0	0	0
[22:00-23:00]	6	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	3	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	7	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	9	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	18	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	12	0	0	0	1	0	0	0	0	0	0
[08:00-09:00]	19	0	0	0	0	0	0	0	0	0	0
[09:00-10:00]	24	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	29	0	0	0	0	0	0	0	0	0	0
[11:00-12:00]	28	2	0	0	1	0	0	0	0	0	0
[12:00-13:00]	34	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	30	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	38	3	0	0	1	0	0	0	0	0	0
[15:00-16:00]	56	0	0	0	0	0	0	0	0	0	0
[16:00-17:00]	49	2	0	0	1	0	0	0	0	0	0
[17:00-18:00]	75	3	0	0	1	0	0	0	0	0	0
[18:00-19:00]	42	4	0	0	1	0	0	0	0	0	0
[19:00-20:00]	42	3	0	0	1	0	0	0	0	0	0
[20:00-21:00]	30	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	30	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	9	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	7	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	8	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	5	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	12	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	17	1	0	0	2	0	0	0	0	0	0
[07:00-08:00]	19	2	0	0	1	0	0	0	0	0	0
[08:00-09:00]	16	3	0	0	0	0	0	0	0	0	0
[09:00-10:00]	24	0	0	0	2	0	0	0	0	0	0
[10:00-11:00]	25	1	0	0	1	0	0	0	0	0	0
[11:00-12:00]	27	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	41	2	0	0	1	0	0	0	0	0	0
[13:00-14:00]	45	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	36	4	0	0	1	0	0	0	0	0	0
[15:00-16:00]	53	1	0	0	0	0	0	0	0	0	0
[16:00-17:00]	49	6	0	0	1	0	0	0	0	0	0
[17:00-18:00]	73	2	0	0	1	0	0	0	0	0	0
[18:00-19:00]	54	1	0	0	0	0	0	0	0	0	0
[19:00-20:00]	57	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	38	0	0	0	1	0	0	0	0	0	0
[21:00-22:00]	35	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	13	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	13	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	10	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	8	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	19	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	46	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	84	4	0	0	1	1	0	0	0	0	0
[08:00-09:00]	94	3	0	0	0	1	0	0	0	0	0
[09:00-10:00]	72	3	0	0	0	0	0	0	0	0	0
[10:00-11:00]	80	2	0	0	1	1	0	0	0	0	0
[11:00-12:00]	80	2	0	0	0	1	0	0	0	0	0
[12:00-13:00]	114	4	0	0	0	0	0	0	0	0	0
[13:00-14:00]	104	4	0	0	1	1	0	0	0	0	0
[14:00-15:00]	91	2	0	0	0	0	0	0	0	0	0
[15:00-16:00]	86	4	0	0	0	0	0	0	0	0	0
[16:00-17:00]	138	1	0	0	1	1	0	0	0	0	0
[17:00-18:00]	147	3	0	0	1	1	0	0	0	0	0
[18:00-19:00]	125	1	0	0	0	1	0	0	0	0	0
[19:00-20:00]	74	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	75	0	0	0	1	1	0	0	0	0	0
[21:00-22:00]	51	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	34	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	16	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	6	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	6	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	1	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	8	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	13	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	48	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	85	4	0	0	1	2	0	0	0	1	0
[08:00-09:00]	80	3	0	0	0	0	0	0	0	0	0
[09:00-10:00]	83	3	0	0	1	1	0	0	0	0	0
[10:00-11:00]	71	2	0	0	1	1	0	0	0	0	0
[11:00-12:00]	87	1	0	0	0	1	0	0	0	0	0
[12:00-13:00]	89	4	0	0	0	1	0	0	0	0	0
[13:00-14:00]	93	2	0	0	1	1	0	0	0	1	0
[14:00-15:00]	94	3	0	0	0	0	0	0	0	0	0
[15:00-16:00]	105	4	0	0	0	1	0	0	0	0	0
[16:00-17:00]	126	4	0	0	1	1	0	0	0	0	0
[17:00-18:00]	163	1	0	0	0	0	0	0	0	0	0
[18:00-19:00]	115	3	0	0	0	0	0	0	0	0	0
[19:00-20:00]	107	3	0	0	0	1	0	0	0	0	0
[20:00-21:00]	80	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	47	0	0	0	0	1	0	0	0	0	0
[22:00-23:00]	31	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	25	1	0	0	0	1	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	6	0	0	0	0	1	0	0	0	0	0
[01:00-02:00]	4	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	10	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	25	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	57	0	0	0	0	0	0	0	0	0	0
[08:00-09:00]	42	3	0	0	0	0	0	0	0	0	0
[09:00-10:00]	40	2	0	0	0	0	0	0	0	0	0
[10:00-11:00]	47	4	0	0	0	0	0	0	0	0	0
[11:00-12:00]	57	1	0	0	0	0	0	0	0	0	0
[12:00-13:00]	70	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	85	0	0	0	0	1	0	0	0	0	0
[14:00-15:00]	68	1	0	0	0	0	0	0	0	0	0
[15:00-16:00]	60	3	0	0	0	0	0	0	0	0	0
[16:00-17:00]	92	4	0	0	0	1	0	0	0	0	0
[17:00-18:00]	120	5	0	0	0	1	0	0	0	0	0
[18:00-19:00]	88	5	0	0	0	1	0	0	0	0	0
[19:00-20:00]	67	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	58	0	0	0	0	1	0	0	0	0	0
[21:00-22:00]	33	4	0	0	0	0	0	0	0	0	0
[22:00-23:00]	24	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	15	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	8	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	24	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	46	2	0	0	0	1	0	0	0	0	0
[08:00-09:00]	45	2	0	0	0	0	0	0	0	0	0
[09:00-10:00]	39	2	0	0	0	0	0	0	0	0	0
[10:00-11:00]	44	4	0	0	0	0	0	0	0	0	0
[11:00-12:00]	63	1	0	0	1	1	0	0	0	0	0
[12:00-13:00]	65	5	0	0	0	0	0	0	0	0	0
[13:00-14:00]	55	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	69	2	0	0	0	0	0	0	0	0	0
[15:00-16:00]	89	0	0	0	0	0	0	0	0	0	0
[16:00-17:00]	104	3	0	0	1	1	0	0	0	1	0
[17:00-18:00]	126	2	0	0	0	0	0	0	0	0	0
[18:00-19:00]	90	1	0	0	0	0	0	0	0	0	0
[19:00-20:00]	74	4	0	0	0	1	0	0	0	0	0
[20:00-21:00]	51	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	46	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	16	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	17	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	26	0	0	0	1	0	0	0	0	0	0
[01:00-02:00]	10	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	10	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	42	3	0	0	1	0	0	0	0	0	0
[06:00-07:00]	115	2	0	0	0	0	0	0	0	0	0
[07:00-08:00]	210	6	1	0	2	1	0	0	0	1	0
[08:00-09:00]	197	7	1	0	1	0	0	0	0	0	0
[09:00-10:00]	193	6	1	0	1	0	0	0	0	0	0
[10:00-11:00]	188	7	1	0	1	0	0	0	0	0	0
[11:00-12:00]	258	5	1	0	1	0	0	0	0	1	0
[12:00-13:00]	312	14	1	1	1	0	0	0	0	0	0
[13:00-14:00]	295	8	1	0	1	0	0	0	0	1	0
[14:00-15:00]	309	2	0	0	1	0	0	0	0	1	0
[15:00-16:00]	292	7	1	0	1	0	0	0	0	1	0
[16:00-17:00]	309	4	0	0	0	0	0	0	0	0	0
[17:00-18:00]	324	7	1	0	1	0	0	0	0	1	0
[18:00-19:00]	298	3	0	0	1	0	0	0	0	1	0
[19:00-20:00]	217	4	0	0	0	0	0	0	0	0	0
[20:00-21:00]	166	4	0	0	2	1	1	0	0	2	1
[21:00-22:00]	117	3	0	0	1	0	0	0	0	1	0
[22:00-23:00]	80	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	42	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	33	2	0	0	0	0	0	0	0	0	0
[01:00-02:00]	11	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	11	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	6	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	12	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	33	3	0	0	1	0	0	0	0	1	0
[06:00-07:00]	94	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	202	4	0	0	1	0	0	0	0	1	0
[08:00-09:00]	194	4	0	0	1	0	0	0	0	0	0
[09:00-10:00]	196	3	0	0	1	0	0	0	0	1	0
[10:00-11:00]	211	3	0	0	2	1	0	0	0	1	0
[11:00-12:00]	251	7	1	0	2	1	0	0	0	1	0
[12:00-13:00]	349	7	1	0	1	0	0	0	0	1	0
[13:00-14:00]	280	7	1	0	1	0	0	0	0	1	0
[14:00-15:00]	291	2	0	0	1	0	0	0	0	1	0
[15:00-16:00]	258	5	1	0	1	0	0	0	0	1	0
[16:00-17:00]	343	5	1	0	1	0	0	0	0	1	0
[17:00-18:00]	376	8	1	0	0	0	0	0	0	0	0
[18:00-19:00]	278	5	1	0	1	0	0	0	0	0	0
[19:00-20:00]	234	3	0	0	0	0	0	0	0	0	0
[20:00-21:00]	156	3	0	0	0	0	0	0	0	0	0
[21:00-22:00]	113	2	0	0	1	0	0	0	0	0	0
[22:00-23:00]	96	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	60	3	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	31	0	0	0	1	0	0	0	0	0	0
[01:00-02:00]	15	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	9	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	5	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	20	3	0	0	1	0	0	0	0	1	0
[06:00-07:00]	53	3	0	0	1	0	0	0	0	0	0
[07:00-08:00]	145	10	1	1	3	1	1	0	0	2	1
[08:00-09:00]	145	7	1	0	1	0	0	0	0	1	0
[09:00-10:00]	174	3	0	0	0	0	0	0	0	0	0
[10:00-11:00]	202	10	1	1	1	0	0	0	0	1	0
[11:00-12:00]	275	4	0	0	1	0	0	0	0	1	0
[12:00-13:00]	338	8	1	0	3	1	0	0	0	2	0
[13:00-14:00]	333	5	1	0	1	0	0	0	0	1	0
[14:00-15:00]	339	9	1	0	1	0	0	0	0	0	0
[15:00-16:00]	371	5	1	0	1	0	0	0	0	1	0
[16:00-17:00]	405	4	0	0	2	1	1	0	0	2	1
[17:00-18:00]	370	6	1	0	3	1	1	0	0	2	1
[18:00-19:00]	291	3	0	0	1	0	0	0	0	1	0
[19:00-20:00]	287	3	0	0	1	0	0	0	0	1	0
[20:00-21:00]	209	3	0	0	1	0	0	0	0	1	0
[21:00-22:00]	165	3	0	0	1	0	0	0	0	1	0
[22:00-23:00]	95	4	0	0	0	0	0	0	0	0	0
[23:00-00:00]	73	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	28	2	0	0	1	0	0	0	0	0	0
[01:00-02:00]	20	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	11	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	9	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	27	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	56	4	0	0	1	0	0	0	0	0	0
[07:00-08:00]	117	7	1	0	2	1	0	0	0	1	0
[08:00-09:00]	142	7	1	0	2	1	0	0	0	1	0
[09:00-10:00]	190	3	0	0	1	0	0	0	0	1	0
[10:00-11:00]	195	10	1	1	1	0	0	0	0	0	0
[11:00-12:00]	311	4	0	0	0	0	0	0	0	0	0
[12:00-13:00]	368	8	1	0	1	0	0	0	0	1	0
[13:00-14:00]	289	7	1	0	2	1	0	0	0	1	0
[14:00-15:00]	322	5	1	0	1	0	0	0	0	1	0
[15:00-16:00]	393	8	1	0	1	0	0	0	0	1	0
[16:00-17:00]	415	6	1	0	1	0	0	0	0	0	0
[17:00-18:00]	423	8	1	0	1	0	0	0	0	1	0
[18:00-19:00]	360	3	0	0	3	1	1	0	0	2	1
[19:00-20:00]	278	3	0	0	1	0	0	0	0	1	0
[20:00-21:00]	243	3	0	0	1	0	0	0	0	1	0
[21:00-22:00]	135	2	0	0	1	0	0	0	0	0	0
[22:00-23:00]	98	0	0	0	1	0	0	0	0	0	0
[23:00-00:00]	61	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	25	0	0	0	1	0	0	0	0	0	0
[01:00-02:00]	6	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	11	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	17	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	51	2	0	0	1	1	0	0	0	0	0
[06:00-07:00]	135	4	0	0	0	0	0	0	0	0	0
[07:00-08:00]	233	6	0	0	3	1	0	0	0	1	0
[08:00-09:00]	220	6	0	0	2	1	0	0	0	1	0
[09:00-10:00]	201	4	0	0	2	1	0	0	0	1	0
[10:00-11:00]	158	6	0	0	2	1	0	0	0	1	0
[11:00-12:00]	204	5	0	0	1	0	0	0	0	0	0
[12:00-13:00]	247	6	0	0	0	0	0	0	0	0	0
[13:00-14:00]	224	9	0	0	1	1	0	0	0	0	0
[14:00-15:00]	260	6	0	0	2	1	0	0	0	1	0
[15:00-16:00]	241	9	0	0	3	1	0	0	0	1	0
[16:00-17:00]	260	7	0	0	1	0	0	0	0	0	0
[17:00-18:00]	268	6	0	0	1	0	0	0	0	0	0
[18:00-19:00]	176	5	0	0	1	1	0	0	0	0	0
[19:00-20:00]	152	2	0	0	1	1	0	0	0	0	0
[20:00-21:00]	123	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	96	3	0	0	0	0	0	0	0	0	0
[22:00-23:00]	72	4	0	0	0	0	0	0	0	0	0
[23:00-00:00]	56	1	0	0	2	0	0	0	0	1	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	32	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	16	0	0	0	1	0	0	0	0	0	0
[02:00-03:00]	18	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	14	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	44	0	0	0	1	0	0	0	0	0	0
[06:00-07:00]	146	3	0	0	1	0	0	0	0	0	0
[07:00-08:00]	267	5	0	0	2	0	0	0	0	0	0
[08:00-09:00]	203	3	0	0	2	0	0	0	0	0	0
[09:00-10:00]	195	6	0	0	3	1	0	0	0	1	0
[10:00-11:00]	179	0	0	0	2	0	0	0	0	0	0
[11:00-12:00]	194	5	0	0	1	0	0	0	0	0	0
[12:00-13:00]	220	5	0	0	3	1	0	0	0	1	0
[13:00-14:00]	248	5	0	0	1	0	0	0	0	0	0
[14:00-15:00]	246	10	0	0	2	0	0	0	0	0	0
[15:00-16:00]	248	8	0	0	2	0	0	0	0	0	0
[16:00-17:00]	244	6	0	0	2	0	0	0	0	0	0
[17:00-18:00]	294	8	0	0	1	0	0	0	0	0	0
[18:00-19:00]	196	4	0	0	1	0	0	0	0	0	0
[19:00-20:00]	132	9	0	0	1	0	0	0	0	0	0
[20:00-21:00]	141	1	0	0	1	0	0	0	0	0	0
[21:00-22:00]	95	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	76	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	55	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	31	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	16	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	9	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	6	0	0	0	1	0	0	0	0	0	0
[04:00-05:00]	3	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	13	1	0	0	1	0	0	0	0	0	0
[06:00-07:00]	48	4	0	0	2	0	0	0	0	0	0
[07:00-08:00]	170	7	0	0	3	1	0	0	0	0	0
[08:00-09:00]	129	2	0	0	1	0	0	0	0	0	0
[09:00-10:00]	162	5	0	0	4	1	0	0	0	1	0
[10:00-11:00]	160	6	0	0	3	1	0	0	0	0	0
[11:00-12:00]	214	4	0	0	3	1	0	0	0	1	0
[12:00-13:00]	254	5	0	0	4	1	0	0	0	1	0
[13:00-14:00]	258	9	0	0	4	1	0	0	0	1	0
[14:00-15:00]	321	9	0	0	8	2	0	0	0	1	0
[15:00-16:00]	316	6	0	0	8	2	0	0	0	1	0
[16:00-17:00]	334	9	0	0	6	1	0	0	0	1	0
[17:00-18:00]	346	7	0	0	1	0	0	0	0	0	0
[18:00-19:00]	257	4	0	0	0	0	0	0	0	0	0
[19:00-20:00]	242	5	0	0	3	1	0	0	0	1	0
[20:00-21:00]	192	5	0	0	1	0	0	0	0	0	0
[21:00-22:00]	123	3	0	0	1	0	0	0	0	0	0
[22:00-23:00]	90	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	76	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	33	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	27	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	17	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	6	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	16	1	0	0	1	0	0	0	0	0	0
[06:00-07:00]	44	3	0	0	3	1	0	0	0	0	0
[07:00-08:00]	152	6	0	0	3	1	0	0	0	1	0
[08:00-09:00]	120	6	0	0	2	0	0	0	0	0	0
[09:00-10:00]	152	5	0	0	1	0	0	0	0	0	0
[10:00-11:00]	154	7	0	0	1	0	0	0	0	0	0
[11:00-12:00]	233	8	0	0	1	0	0	0	0	0	0
[12:00-13:00]	261	8	0	0	8	2	0	0	0	1	0
[13:00-14:00]	258	6	0	0	6	1	0	0	0	1	0
[14:00-15:00]	289	2	0	0	5	1	0	0	0	1	0
[15:00-16:00]	369	14	1	1	4	1	0	0	0	1	0
[16:00-17:00]	369	7	0	0	4	1	0	0	0	1	0
[17:00-18:00]	280	9	0	0	5	1	0	0	0	1	0
[18:00-19:00]	289	7	0	0	2	0	0	0	0	0	0
[19:00-20:00]	208	6	0	0	5	1	0	0	0	1	0
[20:00-21:00]	170	6	0	0	2	0	0	0	0	0	0
[21:00-22:00]	116	3	0	0	1	0	0	0	0	0	0
[22:00-23:00]	91	5	0	0	0	0	0	0	0	0	0
[23:00-00:00]	84	3	0	0	1	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	2	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	1	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	2	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	3	1	0	0	0	0	0	0	0	1	0
[07:00-08:00]	14	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	19	1	0	0	0	0	0	0	0	0	0
[09:00-10:00]	31	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	19	3	0	0	0	0	0	0	0	0	0
[11:00-12:00]	28	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	30	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	27	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	35	2	0	0	1	0	0	0	0	1	0
[15:00-16:00]	45	1	0	0	1	1	0	0	0	1	0
[16:00-17:00]	33	0	0	0	0	1	0	0	0	1	0
[17:00-18:00]	36	4	0	0	0	1	0	0	0	0	0
[18:00-19:00]	25	0	0	0	0	1	0	0	0	0	0
[19:00-20:00]	20	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	12	2	0	0	0	0	0	0	0	0	0
[21:00-22:00]	11	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	12	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	4	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	4	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	4	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	16	2	0	0	0	0	0	0	0	0	0
[08:00-09:00]	20	1	0	0	0	0	0	0	0	0	0
[09:00-10:00]	17	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	21	0	0	0	0	0	0	0	0	0	0
[11:00-12:00]	22	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	29	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	25	0	0	0	0	0	0	0	0	0	0
[14:00-15:00]	34	2	0	0	0	0	0	0	0	0	0
[15:00-16:00]	39	2	0	0	1	1	0	0	0	1	0
[16:00-17:00]	38	2	0	0	0	0	0	0	0	0	0
[17:00-18:00]	49	3	0	0	0	0	0	0	0	0	0
[18:00-19:00]	30	1	0	0	0	0	0	0	0	0	0
[19:00-20:00]	33	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	19	3	0	0	0	0	0	0	0	0	0
[21:00-22:00]	10	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	12	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	3	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	6	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	13	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	32	0	0	0	0	0	0	0	0	0	0
[08:00-09:00]	33	0	0	0	0	0	0	0	0	0	0
[09:00-10:00]	34	2	0	0	1	1	0	0	0	1	0
[10:00-11:00]	32	0	0	0	0	0	0	0	0	0	0
[11:00-12:00]	21	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	27	0	0	0	0	0	0	0	0	0	0
[13:00-14:00]	27	0	0	0	0	0	0	0	0	0	0
[14:00-15:00]	38	1	0	0	1	1	0	0	0	1	0
[15:00-16:00]	43	1	0	0	0	0	0	0	0	0	0
[16:00-17:00]	31	2	0	0	1	1	0	0	0	1	0
[17:00-18:00]	36	2	0	0	1	1	0	0	0	1	0
[18:00-19:00]	36	2	0	0	0	0	0	0	0	0	0
[19:00-20:00]	19	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	19	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	10	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	12	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	6	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	5	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	10	2	0	0	0	0	0	0	0	0	0
[07:00-08:00]	29	0	0	0	0	0	0	0	0	0	0
[08:00-09:00]	26	4	0	0	1	1	0	0	0	1	0
[09:00-10:00]	25	1	0	0	1	1	0	0	0	1	0
[10:00-11:00]	22	0	0	0	1	1	0	0	0	1	0
[11:00-12:00]	26	0	0	0	1	1	0	0	0	1	0
[12:00-13:00]	23	5	0	0	0	0	0	0	0	0	0
[13:00-14:00]	23	3	0	0	1	1	0	0	0	1	0
[14:00-15:00]	16	2	0	0	1	1	0	0	0	1	0
[15:00-16:00]	47	3	0	0	0	0	0	0	0	0	0
[16:00-17:00]	26	1	0	0	0	0	0	0	0	0	0
[17:00-18:00]	41	2	0	0	1	1	0	0	0	1	0
[18:00-19:00]	34	0	0	0	0	0	0	0	0	0	0
[19:00-20:00]	22	2	0	0	1	1	0	0	0	2	0
[20:00-21:00]	16	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	14	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	9	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	7	0	0	0	0	0	0	0	0	0	0

	PC Total	SU					MU				
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	0	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	2	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	7	0	0	0	0	0	0	0	0	0	0
[08:00-09:00]	14	2	0	0	0	0	0	0	0	0	0
[09:00-10:00]	14	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	13	1	0	0	0	0	0	0	0	0	0
[11:00-12:00]	12	1	0	0	0	0	0	0	0	0	0
[12:00-13:00]	13	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	12	1	0	0	1	1	0	0	0	1	0
[14:00-15:00]	22	2	0	0	0	0	0	0	0	0	0
[15:00-16:00]	23	1	0	0	0	0	0	0	0	0	0
[16:00-17:00]	28	2	0	0	0	0	0	0	0	0	0
[17:00-18:00]	23	1	0	0	0	0	0	0	0	0	0
[18:00-19:00]	24	0	0	0	0	0	0	0	0	0	0
[19:00-20:00]	22	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	11	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	12	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	4	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	0	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	4	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	0	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	1	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	6	0	0	0	0	0	0	0	0	0	0
[08:00-09:00]	12	0	0	0	0	0	0	0	0	0	0
[09:00-10:00]	14	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	12	2	0	0	0	0	0	0	0	0	0
[11:00-12:00]	16	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	19	3	0	0	1	1	0	0	0	1	0
[13:00-14:00]	21	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	16	1	0	0	0	0	0	0	0	0	0
[15:00-16:00]	26	0	0	0	0	0	0	0	0	0	0
[16:00-17:00]	22	2	0	0	0	0	0	0	0	0	0
[17:00-18:00]	36	4	0	0	0	0	0	0	0	0	0
[18:00-19:00]	21	0	0	0	0	0	0	0	0	0	0
[19:00-20:00]	23	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	10	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	9	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	2	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	4	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	3	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	3	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	16	2	0	0	0	0	0	0	0	0	0
[08:00-09:00]	22	0	0	0	0	0	0	0	0	0	0
[09:00-10:00]	12	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	13	1	0	0	0	0	0	0	0	0	0
[11:00-12:00]	22	1	0	0	0	0	0	0	0	0	0
[12:00-13:00]	16	0	0	0	1	1	0	0	0	1	0
[13:00-14:00]	18	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	17	0	0	0	0	0	0	0	0	0	0
[15:00-16:00]	17	1	0	0	1	1	0	0	0	1	0
[16:00-17:00]	24	2	0	0	0	0	0	0	0	0	0
[17:00-18:00]	19	1	0	0	0	0	0	0	0	0	0
[18:00-19:00]	27	2	0	0	0	0	0	0	0	0	0
[19:00-20:00]	16	2	0	0	0	0	0	0	0	0	0
[20:00-21:00]	6	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	1	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	4	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	2	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	2	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	2	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	13	2	0	0	0	0	0	0	0	0	0
[08:00-09:00]	16	2	0	0	0	0	0	0	0	0	0
[09:00-10:00]	12	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	11	0	0	0	0	0	0	0	0	0	0
[11:00-12:00]	14	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	23	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	19	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	15	1	0	0	0	0	0	0	0	0	0
[15:00-16:00]	23	1	0	0	0	0	0	0	0	0	0
[16:00-17:00]	18	1	0	0	0	0	0	0	0	0	0
[17:00-18:00]	29	2	0	0	1	1	0	0	0	1	0
[18:00-19:00]	16	0	0	0	0	0	0	0	0	0	0
[19:00-20:00]	15	1	0	0	1	1	0	0	0	1	0
[20:00-21:00]	8	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	11	0	0	0	1	1	0	0	0	1	0
[22:00-23:00]	3	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	0	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	2	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	4	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	11	0	0	0	1	0	0	0	0	0	0
[07:00-08:00]	24	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	27	0	0	0	1	0	0	0	0	0	0
[09:00-10:00]	24	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	30	1	0	0	0	0	0	0	0	0	0
[11:00-12:00]	34	0	0	0	0	0	0	0	0	0	0
[12:00-13:00]	28	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	29	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	42	0	0	0	1	0	0	0	0	0	0
[15:00-16:00]	38	0	0	0	0	0	0	0	0	0	0
[16:00-17:00]	46	2	0	0	1	0	0	0	0	0	0
[17:00-18:00]	54	0	0	0	0	0	0	0	0	0	0
[18:00-19:00]	36	0	0	0	0	0	0	0	0	0	0
[19:00-20:00]	33	3	0	0	0	0	0	0	0	0	0
[20:00-21:00]	15	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	10	2	0	0	1	0	0	0	0	0	0
[22:00-23:00]	7	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	4	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	6	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	12	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	30	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	19	0	0	0	0	0	0	0	0	0	0
[09:00-10:00]	18	0	0	0	0	0	0	0	0	0	0
[10:00-11:00]	20	0	0	0	0	0	0	0	0	0	0
[11:00-12:00]	32	1	0	0	0	0	0	0	0	0	0
[12:00-13:00]	37	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	23	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	31	1	0	0	2	0	0	0	0	0	0
[15:00-16:00]	33	1	0	0	0	0	0	0	0	0	0
[16:00-17:00]	45	2	0	0	0	0	0	0	0	0	0
[17:00-18:00]	48	0	0	0	0	0	0	0	0	0	0
[18:00-19:00]	44	2	0	0	1	0	0	0	0	0	0
[19:00-20:00]	40	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	42	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	27	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	8	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	3	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	10	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	3	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	6	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	11	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	22	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	20	3	0	0	0	0	0	0	0	0	0
[09:00-10:00]	27	2	0	0	0	0	0	0	0	0	0
[10:00-11:00]	22	2	0	0	0	0	0	0	0	0	0
[11:00-12:00]	30	3	0	0	0	0	0	0	0	0	0
[12:00-13:00]	29	2	0	0	0	0	0	0	0	0	0
[13:00-14:00]	27	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	28	2	0	0	1	0	0	0	0	0	0
[15:00-16:00]	37	4	0	0	1	0	0	0	0	0	0
[16:00-17:00]	32	4	0	0	1	0	0	0	0	0	0
[17:00-18:00]	47	5	0	0	0	0	0	0	0	0	0
[18:00-19:00]	35	2	0	0	0	0	0	0	0	0	0
[19:00-20:00]	24	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	22	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	13	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	15	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	5	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	5	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	11	2	0	0	1	0	0	0	0	0	0
[07:00-08:00]	18	3	0	0	1	0	0	0	0	0	0
[08:00-09:00]	26	2	0	0	0	0	0	0	0	0	0
[09:00-10:00]	20	4	0	0	1	0	0	0	0	0	0
[10:00-11:00]	21	4	0	0	0	0	0	0	0	0	0
[11:00-12:00]	20	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	28	1	0	0	1	0	0	0	0	0	0
[13:00-14:00]	37	1	0	0	0	0	0	0	0	0	0
[14:00-15:00]	28	3	0	0	0	0	0	0	0	0	0
[15:00-16:00]	42	0	0	0	1	0	0	0	0	0	0
[16:00-17:00]	41	3	0	0	0	0	0	0	0	0	0
[17:00-18:00]	70	4	0	0	0	0	0	0	0	0	0
[18:00-19:00]	33	2	0	0	0	0	0	0	0	0	0
[19:00-20:00]	24	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	25	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	19	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	12	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	6	0	0	0	0	0	0	0	0	0	0

Location C27 - Front St (NB) from US 41 to Fair Ave

Date : Tuesday, 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	29	0	0	0	0	1	1	0	0	0	0	0	0
[01:00-02:00]	15	1	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	17	3	2	1	0	1	0	0	0	0	0	0	1
[03:00-04:00]	4	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	30	3	2	1	0	2	1	1	0	0	0	0	0
[05:00-06:00]	84	6	5	1	0	6	3	3	0	0	0	0	0
[06:00-07:00]	175	10	8	2	0	8	4	3	0	0	0	1	0
[07:00-08:00]	349	33	27	6	0	7	3	3	0	0	0	1	0
[08:00-09:00]	388	37	30	7	0	9	4	4	0	0	0	1	0
[09:00-10:00]	344	25	20	5	0	8	4	3	0	0	0	1	0
[10:00-11:00]	289	22	18	4	0	8	4	3	0	0	0	1	0
[11:00-12:00]	337	29	23	5	1	6	3	3	0	0	0	0	0
[12:00-13:00]	380	27	22	5	0	10	4	4	1	0	0	1	0
[13:00-14:00]	358	32	25	7	0	4	2	2	0	0	0	0	0
[14:00-15:00]	353	42	34	8	0	12	5	5	1	0	0	1	0
[15:00-16:00]	406	28	23	5	0	6	3	3	0	0	0	0	0
[16:00-17:00]	424	25	20	5	0	4	2	2	0	0	0	0	0
[17:00-18:00]	441	28	23	5	0	3	1	1	0	1	0	0	0
[18:00-19:00]	350	20	16	4	0	6	3	3	0	0	0	0	0
[19:00-20:00]	219	18	15	3	0	1	0	0	0	0	0	1	0
[20:00-21:00]	176	13	10	2	1	0	0	0	0	0	0	0	0
[21:00-22:00]	108	6	5	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	71	1	1	0	0	2	1	1	0	0	0	0	0
[23:00-00:00]	34	1	1	0	0	0	0	0	0	0	0	0	0

Location C27 - Front St (NB) from US 41 to Fair Ave

Date : Wednesday, 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	31	2	2	0	0	1	0	0	0	0	0	1	0
[01:00-02:00]	10	2	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	16	0	0	0	0	1	0	0	0	0	0	1	0
[03:00-04:00]	4	1	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	30	3	2	1	0	3	1	1	0	0	0	0	1
[05:00-06:00]	89	3	2	1	0	2	1	1	0	0	0	0	0
[06:00-07:00]	185	17	14	3	0	8	4	3	0	0	0	1	0
[07:00-08:00]	367	26	21	5	0	12	5	5	1	0	0	1	0
[08:00-09:00]	366	19	15	4	0	10	5	4	0	0	0	1	0
[09:00-10:00]	352	31	25	6	0	13	6	6	0	0	0	1	0
[10:00-11:00]	304	27	22	5	0	9	4	4	0	0	0	1	0
[11:00-12:00]	394	25	20	5	0	5	2	2	1	0	0	0	0
[12:00-13:00]	373	38	30	7	1	5	2	2	0	1	0	0	0
[13:00-14:00]	320	30	24	6	0	10	5	4	0	0	0	1	0
[14:00-15:00]	357	24	19	5	0	5	2	2	0	0	0	0	1
[15:00-16:00]	364	28	23	5	0	6	3	3	0	0	0	0	0
[16:00-17:00]	395	31	25	6	0	2	1	1	0	0	0	0	0
[17:00-18:00]	523	26	21	5	0	6	3	3	0	0	0	0	0
[18:00-19:00]	379	26	21	5	0	4	2	2	0	0	0	0	0
[19:00-20:00]	244	17	14	3	0	4	2	2	0	0	0	0	0
[20:00-21:00]	218	13	10	2	1	2	1	1	0	0	0	0	0
[21:00-22:00]	137	2	2	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	68	2	2	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	50	2	2	0	0	0	0	0	0	0	0	0	0

Location C27 - Front St (SB) from US 41 to Fair Ave

Date : Tuesday, 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	16	1	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	11	0	0	0	0	1	1	0	0	0	0	0	0
[02:00-03:00]	7	1	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	4	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	12	0	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	35	10	8	2	0	3	1	1	1	0	0	0	0
[06:00-07:00]	90	13	10	2	1	3	2	1	0	0	0	0	0
[07:00-08:00]	146	20	16	4	0	4	2	2	0	0	0	0	0
[08:00-09:00]	198	13	11	2	0	4	2	2	0	0	0	0	0
[09:00-10:00]	184	17	14	3	0	7	3	3	0	0	0	1	0
[10:00-11:00]	193	25	20	5	0	3	1	1	0	1	0	0	0
[11:00-12:00]	250	22	18	4	0	11	5	5	0	0	0	1	0
[12:00-13:00]	285	20	16	4	0	14	6	7	0	0	0	1	0
[13:00-14:00]	310	33	27	6	0	8	4	3	0	0	0	1	0
[14:00-15:00]	321	31	25	6	0	9	4	4	0	0	0	1	0
[15:00-16:00]	365	26	21	5	0	5	3	2	0	0	0	0	0
[16:00-17:00]	432	42	34	8	0	9	4	4	0	0	0	1	0
[17:00-18:00]	458	32	26	6	0	12	5	5	1	0	0	1	0
[18:00-19:00]	334	19	15	4	0	4	2	2	0	0	0	0	0
[19:00-20:00]	246	19	15	4	0	2	1	1	0	0	0	0	0
[20:00-21:00]	206	12	10	2	0	1	0	0	0	0	0	0	1
[21:00-22:00]	159	20	16	4	0	1	0	0	0	0	0	1	0
[22:00-23:00]	72	3	2	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	42	1	1	0	0	0	0	0	0	0	0	0	0

Location C27 - Front St (SB) from US 41 to Fair Ave

Date : Wednesday, 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	25	0	0	0	0	1	0	0	0	0	0	1	0
[01:00-02:00]	14	1	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	8	1	1	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	8	1	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	14	1	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	29	5	4	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	97	8	6	2	0	1	0	1	0	0	0	0	0
[07:00-08:00]	170	23	19	4	0	2	1	1	0	0	0	0	0
[08:00-09:00]	189	20	16	4	0	7	3	3	0	0	0	1	0
[09:00-10:00]	191	18	14	3	1	6	3	3	0	0	0	0	0
[10:00-11:00]	213	18	15	3	0	10	5	4	0	0	0	1	0
[11:00-12:00]	264	33	26	7	0	6	3	3	0	0	0	0	0
[12:00-13:00]	290	26	21	5	0	1	0	0	1	0	0	0	0
[13:00-14:00]	267	21	17	4	0	3	1	1	0	1	0	0	0
[14:00-15:00]	340	32	26	6	0	8	4	3	0	0	0	1	0
[15:00-16:00]	373	27	22	5	0	3	1	1	0	0	0	1	0
[16:00-17:00]	450	39	30	8	1	10	5	4	0	0	0	1	0
[17:00-18:00]	495	32	26	6	0	5	2	2	0	0	0	0	1
[18:00-19:00]	343	20	16	4	0	6	3	3	0	0	0	0	0
[19:00-20:00]	275	16	13	3	0	2	1	1	0	0	0	0	0
[20:00-21:00]	281	23	19	4	0	2	1	1	0	0	0	0	0
[21:00-22:00]	168	5	4	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	87	6	5	1	0	2	1	1	0	0	0	0	0
[23:00-00:00]	41	1	1	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	1	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	25	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	37	3	0	0	1	0	0	0	0	0	0
[07:00-08:00]	150	3	0	0	3	1	1	0	0	2	1
[08:00-09:00]	126	3	0	0	2	1	0	0	0	1	0
[09:00-10:00]	77	6	1	0	1	0	0	0	0	0	0
[10:00-11:00]	116	6	1	0	1	0	0	0	0	1	0
[11:00-12:00]	125	5	1	0	1	0	0	0	0	0	0
[12:00-13:00]	128	5	1	0	2	1	0	0	0	1	0
[13:00-14:00]	119	10	1	0	1	0	0	0	0	0	0
[14:00-15:00]	133	6	1	0	1	0	0	0	0	1	0
[15:00-16:00]	136	9	1	0	0	0	0	0	0	0	0
[16:00-17:00]	150	7	1	0	1	0	0	0	0	1	0
[17:00-18:00]	192	3	0	0	1	0	0	0	0	1	0
[18:00-19:00]	106	4	0	0	1	0	0	0	0	1	0
[19:00-20:00]	70	6	1	0	1	0	0	0	0	0	0
[20:00-21:00]	44	1	0	0	1	0	0	0	0	1	0
[21:00-22:00]	27	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	17	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	11	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	2	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	4	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	8	0	0	0	1	0	0	0	0	0	0
[05:00-06:00]	17	1	0	0	1	0	0	0	0	0	0
[06:00-07:00]	40	3	0	0	0	0	0	0	0	0	0
[07:00-08:00]	138	3	0	0	2	1	0	0	0	1	0
[08:00-09:00]	130	4	0	0	1	0	0	0	0	1	0
[09:00-10:00]	96	7	1	0	0	0	0	0	0	0	0
[10:00-11:00]	85	5	1	0	1	0	0	0	0	1	0
[11:00-12:00]	103	8	1	0	0	0	0	0	0	0	0
[12:00-13:00]	154	7	1	0	2	0	0	0	0	1	0
[13:00-14:00]	125	4	0	0	2	1	1	0	0	2	1
[14:00-15:00]	123	7	1	0	0	0	0	0	0	0	0
[15:00-16:00]	101	4	0	0	1	0	0	0	0	1	0
[16:00-17:00]	164	5	1	0	2	1	0	0	0	1	0
[17:00-18:00]	151	6	1	0	1	0	0	0	0	1	0
[18:00-19:00]	94	4	0	0	2	1	0	0	0	2	1
[19:00-20:00]	71	4	0	0	2	1	0	0	0	1	0
[20:00-21:00]	56	3	0	0	0	0	0	0	0	0	0
[21:00-22:00]	25	2	0	0	1	0	0	0	0	1	0
[22:00-23:00]	29	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	13	2	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	10	2	0	0	0	0	0	0	0	0	0
[01:00-02:00]	10	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	10	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	4	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	10	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	28	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	84	4	0	0	2	0	0	0	0	1	0
[08:00-09:00]	94	7	1	0	1	0	0	0	0	1	0
[09:00-10:00]	101	10	1	1	2	1	0	0	0	2	0
[10:00-11:00]	135	15	2	1	4	1	1	0	0	3	1
[11:00-12:00]	181	12	1	1	1	0	0	0	0	1	0
[12:00-13:00]	192	13	1	1	1	0	0	0	0	1	0
[13:00-14:00]	183	13	1	1	3	1	0	0	0	2	0
[14:00-15:00]	221	19	2	1	3	1	1	0	0	2	1
[15:00-16:00]	184	11	1	1	7	2	1	0	0	5	1
[16:00-17:00]	215	19	2	1	3	1	0	0	0	2	0
[17:00-18:00]	287	16	2	1	3	1	1	0	0	3	1
[18:00-19:00]	210	9	1	0	1	0	0	0	0	1	0
[19:00-20:00]	176	5	1	0	1	0	0	0	0	1	0
[20:00-21:00]	111	5	1	0	1	0	0	0	0	1	0
[21:00-22:00]	101	8	1	0	0	0	0	0	0	0	0
[22:00-23:00]	54	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	28	1	0	0	0	0	0	0	0	0	0

	PC Total	SU					MU				
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	14	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	10	1	0	0	0	0	0	0	0	0	0
[02:00-03:00]	7	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	6	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	11	0	0	0	1	0	0	0	0	0	0
[06:00-07:00]	28	0	0	0	1	0	0	0	0	1	0
[07:00-08:00]	67	7	1	0	1	0	0	0	0	0	0
[08:00-09:00]	79	8	1	0	1	0	0	0	0	1	0
[09:00-10:00]	107	9	1	0	1	0	0	0	0	1	0
[10:00-11:00]	135	18	2	1	2	1	1	0	0	2	1
[11:00-12:00]	157	12	1	1	3	1	1	0	0	2	1
[12:00-13:00]	212	14	1	1	1	0	0	0	0	0	0
[13:00-14:00]	184	11	1	1	1	0	0	0	0	1	0
[14:00-15:00]	207	11	1	1	3	1	1	0	0	2	1
[15:00-16:00]	226	14	1	1	2	1	0	0	0	1	0
[16:00-17:00]	277	16	2	1	1	0	0	0	0	0	0
[17:00-18:00]	278	16	2	1	1	0	0	0	0	1	0
[18:00-19:00]	215	6	1	0	2	1	1	0	0	2	0
[19:00-20:00]	151	6	1	0	1	0	0	0	0	1	0
[20:00-21:00]	133	4	0	0	0	0	0	0	0	0	0
[21:00-22:00]	85	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	48	3	0	0	0	0	0	0	0	0	0
[23:00-00:00]	30	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	7	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	5	0	0	0	1	0	0	0	0	0	0
[02:00-03:00]	3	1	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	8	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	60	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	147	5	0	0	0	0	0	0	0	0	0
[08:00-09:00]	114	3	0	0	1	0	0	0	0	0	0
[09:00-10:00]	111	6	0	0	1	0	0	0	0	0	0
[10:00-11:00]	89	3	0	0	1	0	0	0	0	0	0
[11:00-12:00]	108	2	0	0	1	0	0	0	0	0	0
[12:00-13:00]	116	4	0	0	0	0	0	0	0	0	0
[13:00-14:00]	123	5	0	0	0	0	0	0	0	0	0
[14:00-15:00]	140	2	0	0	1	0	0	0	0	0	0
[15:00-16:00]	99	3	0	0	1	0	0	0	0	0	0
[16:00-17:00]	134	6	0	0	1	0	0	0	0	0	0
[17:00-18:00]	94	2	0	0	0	0	0	0	0	0	0
[18:00-19:00]	76	1	0	0	0	0	0	0	0	0	0
[19:00-20:00]	51	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	37	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	17	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	22	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	12	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	6	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	1	0	0	0	0	0	0
[04:00-05:00]	5	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	9	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	63	1	0	0	1	0	0	0	0	0	0
[07:00-08:00]	158	1	0	0	1	0	0	0	0	0	0
[08:00-09:00]	106	3	0	0	0	0	0	0	0	0	0
[09:00-10:00]	103	3	0	0	1	0	0	0	0	0	0
[10:00-11:00]	79	2	0	0	1	0	0	0	0	0	0
[11:00-12:00]	91	2	0	0	1	0	0	0	0	0	0
[12:00-13:00]	118	5	0	0	1	0	0	0	0	0	0
[13:00-14:00]	104	2	0	0	1	0	0	0	0	0	0
[14:00-15:00]	120	6	0	0	1	0	0	0	0	0	0
[15:00-16:00]	91	5	0	0	1	0	0	0	0	0	0
[16:00-17:00]	99	2	0	0	1	0	0	0	0	0	0
[17:00-18:00]	99	2	0	0	1	0	0	0	0	0	0
[18:00-19:00]	64	2	0	0	0	0	0	0	0	0	0
[19:00-20:00]	45	3	0	0	2	0	0	0	0	0	0
[20:00-21:00]	37	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	27	1	0	0	1	0	0	0	0	0	0
[22:00-23:00]	21	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	13	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	14	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	8	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	4	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	2	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	6	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	17	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	101	5	1	0	0	0	0	0	0	0	1
[08:00-09:00]	66	5	1	0	0	0	0	0	0	0	0
[09:00-10:00]	81	5	1	0	0	0	0	0	0	0	1
[10:00-11:00]	91	4	1	0	0	0	0	0	0	0	1
[11:00-12:00]	114	3	0	0	0	0	0	0	0	0	1
[12:00-13:00]	130	2	0	0	0	0	0	0	0	0	1
[13:00-14:00]	161	3	0	0	0	0	0	0	0	0	1
[14:00-15:00]	180	2	0	0	0	0	0	0	0	0	2
[15:00-16:00]	188	3	0	0	0	0	1	0	0	1	4
[16:00-17:00]	196	5	1	0	0	0	0	0	0	0	1
[17:00-18:00]	198	5	1	0	0	0	0	0	0	0	1
[18:00-19:00]	128	2	0	0	0	0	0	0	0	0	1
[19:00-20:00]	119	6	1	0	0	0	0	0	0	0	1
[20:00-21:00]	73	2	0	0	0	0	0	0	0	0	1
[21:00-22:00]	53	1	0	0	0	0	0	0	0	0	1
[22:00-23:00]	39	2	0	0	0	0	0	0	0	0	0
[23:00-00:00]	29	1	0	0	0	0	0	0	0	0	0

	PC Total	SU					MU				
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	14	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	8	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	4	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	3	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	10	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	23	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	101	3	0	0	0	0	0	0	0	0	1
[08:00-09:00]	65	2	0	0	0	0	0	0	0	0	1
[09:00-10:00]	87	5	1	0	0	0	0	0	0	0	1
[10:00-11:00]	80	5	1	0	0	0	0	0	0	0	0
[11:00-12:00]	139	2	0	0	0	0	0	0	0	0	2
[12:00-13:00]	135	7	1	0	0	0	0	0	0	0	2
[13:00-14:00]	151	5	1	0	0	0	0	0	0	0	1
[14:00-15:00]	161	6	1	0	0	0	1	0	0	0	2
[15:00-16:00]	175	7	1	0	0	0	0	0	0	0	1
[16:00-17:00]	212	4	1	0	0	0	0	0	0	0	1
[17:00-18:00]	185	7	1	0	0	0	0	0	0	0	2
[18:00-19:00]	145	6	1	0	0	0	0	0	0	0	1
[19:00-20:00]	87	2	0	0	0	0	0	0	0	0	0
[20:00-21:00]	72	1	0	0	0	0	0	0	0	0	1
[21:00-22:00]	50	0	0	0	0	0	0	0	0	0	1
[22:00-23:00]	34	3	0	0	0	0	0	0	0	0	1
[23:00-00:00]	25	1	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	2	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	5	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	17	0	0	0	0	1	0	0	0	0	0
[06:00-07:00]	47	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	140	0	0	0	0	2	0	0	0	0	0
[08:00-09:00]	112	1	0	0	0	1	0	0	0	0	0
[09:00-10:00]	77	3	0	0	0	1	0	0	0	0	0
[10:00-11:00]	58	3	0	0	0	0	0	0	0	0	0
[11:00-12:00]	59	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	93	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	108	2	0	0	0	0	0	0	0	0	0
[14:00-15:00]	90	3	0	0	0	1	0	0	0	0	0
[15:00-16:00]	114	4	0	0	0	0	0	0	0	0	0
[16:00-17:00]	128	2	0	0	0	1	0	0	0	0	0
[17:00-18:00]	103	4	0	0	0	2	0	0	0	0	0
[18:00-19:00]	88	4	0	0	0	0	0	0	0	0	0
[19:00-20:00]	76	0	0	0	0	0	0	0	0	0	0
[20:00-21:00]	24	0	0	0	0	1	0	0	0	0	0
[21:00-22:00]	20	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	10	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	9	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	3	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	18	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	43	1	0	0	0	0	0	0	0	0	0
[07:00-08:00]	143	2	0	0	0	1	0	0	0	0	0
[08:00-09:00]	124	2	0	0	0	1	0	0	0	0	0
[09:00-10:00]	71	2	0	0	0	1	0	0	0	0	0
[10:00-11:00]	61	3	0	0	0	0	0	0	0	0	0
[11:00-12:00]	79	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	86	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	72	6	0	0	0	1	0	0	0	0	0
[14:00-15:00]	106	3	0	0	0	0	0	0	0	0	0
[15:00-16:00]	122	1	0	0	0	1	0	0	0	0	0
[16:00-17:00]	118	6	0	0	0	0	0	0	0	0	0
[17:00-18:00]	118	3	0	0	0	1	0	0	0	0	0
[18:00-19:00]	118	1	0	0	0	0	0	0	0	0	0
[19:00-20:00]	79	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	56	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	21	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	11	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	6	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU					
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	5	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	6	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	5	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	7	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	30	0	0	0	0	1	0	0	0	0	0
[07:00-08:00]	87	4	0	0	0	2	0	0	0	0	0
[08:00-09:00]	66	1	0	0	0	2	0	0	0	0	0
[09:00-10:00]	70	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	75	2	0	0	0	1	0	0	0	0	0
[11:00-12:00]	74	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	98	1	0	0	0	2	0	0	0	0	0
[13:00-14:00]	79	4	0	0	0	0	0	0	0	0	0
[14:00-15:00]	98	3	0	0	0	1	0	0	0	0	0
[15:00-16:00]	124	3	0	0	0	0	0	0	0	0	0
[16:00-17:00]	186	2	0	0	0	3	0	0	0	0	0
[17:00-18:00]	142	2	0	0	0	1	0	0	0	0	0
[18:00-19:00]	99	1	0	0	0	1	0	0	0	0	0
[19:00-20:00]	82	2	0	0	0	0	0	0	0	0	0
[20:00-21:00]	59	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	37	2	0	0	0	0	0	0	0	0	0
[22:00-23:00]	26	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	22	0	0	0	0	0	0	0	0	0	0

	PC Total	SU			MU						
Tue,Oct/08/2013		Class 5	Class 6	Class 7	Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	9	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	2	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	1	1	0	0	0	0	0	0	0	0	0
[05:00-06:00]	6	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	28	1	0	0	0	1	0	0	0	0	0
[07:00-08:00]	62	0	0	0	0	1	0	0	0	0	0
[08:00-09:00]	65	2	0	0	0	0	0	0	0	0	0
[09:00-10:00]	77	4	0	0	0	1	0	0	0	0	0
[10:00-11:00]	62	3	0	0	0	0	0	0	0	0	0
[11:00-12:00]	75	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	103	3	0	0	0	1	0	0	0	0	0
[13:00-14:00]	87	5	0	0	0	2	0	0	0	0	0
[14:00-15:00]	118	6	0	0	0	2	0	0	0	0	0
[15:00-16:00]	142	2	0	0	0	0	0	0	0	0	0
[16:00-17:00]	187	2	0	0	0	1	0	0	0	0	0
[17:00-18:00]	177	4	0	0	0	1	0	0	0	0	0
[18:00-19:00]	100	2	0	0	0	1	0	0	0	0	0
[19:00-20:00]	85	4	0	0	0	0	0	0	0	0	0
[20:00-21:00]	67	3	0	0	0	0	0	0	0	0	0
[21:00-22:00]	33	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	27	0	0	0	0	1	0	0	0	0	0
[23:00-00:00]	11	0	0	0	0	0	0	0	0	0	0

Location C31 - Lincoln Ave (NB) from Washington St to Wright St

Date : Tuesday, 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	13	4	3	1	0	1	0	0	0	0	0	1	0
[01:00-02:00]	4	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	2	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	10	1	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	32	6	5	1	0	0	0	0	0	0	0	0	0
[06:00-07:00]	86	14	11	3	0	4	2	2	0	0	0	0	0
[07:00-08:00]	194	18	15	3	0	13	6	6	0	0	0	1	0
[08:00-09:00]	126	8	6	2	0	3	2	1	0	0	0	0	0
[09:00-10:00]	124	11	9	2	0	2	1	1	0	0	0	0	0
[10:00-11:00]	128	10	8	2	0	3	1	2	0	0	0	0	0
[11:00-12:00]	152	10	8	2	0	2	1	1	0	0	0	0	0
[12:00-13:00]	158	7	6	1	0	2	1	1	0	0	0	0	0
[13:00-14:00]	144	6	5	1	0	2	1	1	0	0	0	0	0
[14:00-15:00]	171	9	7	2	0	2	1	1	0	0	0	0	0
[15:00-16:00]	150	13	10	2	1	0	0	0	0	0	0	0	0
[16:00-17:00]	162	8	6	2	0	1	0	0	0	0	0	1	0
[17:00-18:00]	154	9	7	2	0	4	2	2	0	0	0	0	0
[18:00-19:00]	100	5	4	1	0	0	0	0	0	0	0	0	0
[19:00-20:00]	96	7	6	1	0	1	0	0	1	0	0	0	0
[20:00-21:00]	71	5	4	1	0	1	1	0	0	0	0	0	0
[21:00-22:00]	45	2	2	0	0	2	1	1	0	0	0	0	0
[22:00-23:00]	52	4	3	1	0	1	1	0	0	0	0	0	0
[23:00-00:00]	27	0	0	0	0	1	0	0	0	0	0	0	1

Location C31 - Lincoln Ave (NB) from Washington St to Wright St

Date : Wednesday, 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	14	0	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	11	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	6	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	4	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	11	2	2	0	0	1	1	0	0	0	0	0	0
[05:00-06:00]	30	4	3	1	0	1	0	1	0	0	0	0	0
[06:00-07:00]	84	10	8	2	0	4	2	2	0	0	0	0	0
[07:00-08:00]	213	11	9	2	0	3	2	1	0	0	0	0	0
[08:00-09:00]	120	10	8	2	0	2	1	1	0	0	0	0	0
[09:00-10:00]	135	6	5	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	104	5	4	1	0	2	1	1	0	0	0	0	0
[11:00-12:00]	110	10	8	2	0	1	0	0	0	0	0	1	0
[12:00-13:00]	188	10	8	2	0	1	0	0	0	0	0	1	0
[13:00-14:00]	142	13	10	2	1	1	0	1	0	0	0	0	0
[14:00-15:00]	174	12	10	2	0	2	1	1	0	0	0	0	0
[15:00-16:00]	131	11	9	2	0	3	2	1	0	0	0	0	0
[16:00-17:00]	132	17	14	3	0	4	2	2	0	0	0	0	0
[17:00-18:00]	139	15	12	3	0	3	2	1	0	0	0	0	0
[18:00-19:00]	120	7	6	1	0	1	0	0	1	0	0	0	0
[19:00-20:00]	70	4	3	1	0	2	1	1	0	0	0	0	0
[20:00-21:00]	50	13	11	2	0	3	1	2	0	0	0	0	0
[21:00-22:00]	51	4	3	1	0	2	1	1	0	0	0	0	0
[22:00-23:00]	40	5	4	1	0	1	0	0	0	0	0	1	0
[23:00-00:00]	24	3	2	1	0	0	0	0	0	0	0	0	0

Location C31 - Lincoln Ave (SB) from Washington St to Wright St

Date : Tuesday, 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	19	1	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	10	1	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	1	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	15	4	3	1	0	4	2	2	0	0	0	0	0
[06:00-07:00]	45	6	5	1	0	7	3	3	0	0	0	1	0
[07:00-08:00]	153	4	3	1	0	6	3	3	0	0	0	0	0
[08:00-09:00]	125	6	5	1	0	4	2	2	0	0	0	0	0
[09:00-10:00]	121	5	4	1	0	2	1	1	0	0	0	0	0
[10:00-11:00]	145	6	5	1	0	3	1	1	0	0	0	1	0
[11:00-12:00]	193	8	7	1	0	1	0	0	1	0	0	0	0
[12:00-13:00]	198	8	6	2	0	4	2	2	0	0	0	0	0
[13:00-14:00]	201	5	4	1	0	1	0	0	0	1	0	0	0
[14:00-15:00]	290	9	7	2	0	10	5	4	0	0	0	1	0
[15:00-16:00]	274	5	4	1	0	4	2	2	0	0	0	0	0
[16:00-17:00]	249	17	14	3	0	0	0	0	0	0	0	0	0
[17:00-18:00]	236	4	3	1	0	3	1	1	0	0	0	0	1
[18:00-19:00]	166	4	3	1	0	8	4	3	0	0	0	1	0
[19:00-20:00]	180	5	4	1	0	3	1	1	0	0	0	1	0
[20:00-21:00]	106	2	2	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	69	3	2	1	0	2	1	1	0	0	0	0	0
[22:00-23:00]	47	2	2	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	52	0	0	0	0	0	0	0	0	0	0	0	0

Location C31 - Lincoln Ave (SB) from Washington St to Wright St

Date : Wednesday, 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	10	0	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	11	1	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	1	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	4	1	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	20	0	0	0	0	3	2	1	0	0	0	0	0
[06:00-07:00]	36	7	6	1	0	3	1	1	0	0	0	1	0
[07:00-08:00]	174	10	8	2	0	6	3	3	0	0	0	0	0
[08:00-09:00]	110	10	8	2	0	2	1	1	0	0	0	0	0
[09:00-10:00]	147	5	4	1	0	3	2	1	0	0	0	0	0
[10:00-11:00]	134	5	4	1	0	3	1	2	0	0	0	0	0
[11:00-12:00]	194	6	5	1	0	3	1	1	0	0	0	0	1
[12:00-13:00]	241	7	5	2	0	2	1	1	0	0	0	0	0
[13:00-14:00]	203	5	4	1	0	3	2	1	0	0	0	0	0
[14:00-15:00]	295	12	10	2	0	9	4	4	0	0	0	1	0
[15:00-16:00]	252	10	8	2	0	2	1	1	0	0	0	0	0
[16:00-17:00]	250	11	9	2	0	6	3	3	0	0	0	0	0
[17:00-18:00]	238	5	4	1	0	7	3	3	0	0	0	1	0
[18:00-19:00]	165	10	8	2	0	3	1	1	0	0	0	1	0
[19:00-20:00]	107	3	2	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	116	5	4	1	0	2	1	1	0	0	0	0	0
[21:00-22:00]	72	1	1	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	45	0	0	0	0	1	0	0	1	0	0	0	0
[23:00-00:00]	41	1	1	0	0	0	0	0	0	0	0	0	0

Location C32 - Lincoln Ave (NB) from Washington St to Wright St

Date : Tuesday, 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	12	2	2	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	8	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	3	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	13	1	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	19	0	0	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	32	2	2	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	94	2	2	0	0	1	1	0	0	0	0	0	0
[08:00-09:00]	81	2	2	0	0	1	0	1	0	0	0	0	0
[09:00-10:00]	99	7	6	1	0	0	0	0	0	0	0	0	0
[10:00-11:00]	90	3	2	1	0	0	0	0	0	0	0	0	0
[11:00-12:00]	125	4	3	1	0	1	1	0	0	0	0	0	0
[12:00-13:00]	143	2	2	0	0	2	1	1	0	0	0	0	0
[13:00-14:00]	115	8	6	2	0	1	0	0	0	0	0	1	0
[14:00-15:00]	127	6	5	1	0	3	1	2	0	0	0	0	0
[15:00-16:00]	139	7	6	1	0	0	0	0	0	0	0	0	0
[16:00-17:00]	127	9	7	2	0	1	1	0	0	0	0	0	0
[17:00-18:00]	136	6	5	1	0	1	0	1	0	0	0	0	0
[18:00-19:00]	95	2	2	0	0	1	0	1	0	0	0	0	0
[19:00-20:00]	100	0	0	0	0	2	1	1	0	0	0	0	0
[20:00-21:00]	73	2	2	0	0	1	1	0	0	0	0	0	0
[21:00-22:00]	62	2	2	0	0	0	0	0	0	0	0	0	0
[22:00-23:00]	47	1	1	0	0	1	1	0	0	0	0	0	0
[23:00-00:00]	30	1	1	0	0	0	0	0	0	0	0	0	0

Location C32 - Lincoln Ave (NB) from Washington St to Wright St

Date : Wednesday, 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	19	0	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	7	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	16	1	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	17	1	1	0	0	1	1	0	0	0	0	0	0
[06:00-07:00]	33	1	1	0	0	1	0	1	0	0	0	0	0
[07:00-08:00]	73	3	2	1	0	0	0	0	0	0	0	0	0
[08:00-09:00]	70	3	2	1	0	1	1	0	0	0	0	0	0
[09:00-10:00]	103	1	1	0	0	2	1	1	0	0	0	0	0
[10:00-11:00]	92	2	2	0	0	1	0	0	1	0	0	0	0
[11:00-12:00]	98	4	3	1	0	2	1	1	0	0	0	0	0
[12:00-13:00]	142	4	3	1	0	0	0	0	0	0	0	0	0
[13:00-14:00]	120	6	5	1	0	3	2	1	0	0	0	0	0
[14:00-15:00]	126	1	1	0	0	2	1	1	0	0	0	0	0
[15:00-16:00]	116	5	4	1	0	1	0	0	0	0	0	1	0
[16:00-17:00]	124	6	5	1	0	3	1	2	0	0	0	0	0
[17:00-18:00]	142	4	3	1	0	2	1	1	0	0	0	0	0
[18:00-19:00]	119	5	4	1	0	2	1	1	0	0	0	0	0
[19:00-20:00]	86	1	1	0	0	2	1	1	0	0	0	0	0
[20:00-21:00]	56	2	2	0	0	0	0	0	0	0	0	0	0
[21:00-22:00]	54	3	2	1	0	3	1	1	0	0	0	1	0
[22:00-23:00]	34	0	0	0	0	0	0	0	0	0	0	0	0
[23:00-00:00]	27	0	0	0	0	0	0	0	0	0	0	0	0

Location C32 - Lincoln Ave (SB) from Washington St to Wright St

Date : Tuesday, 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	17	1	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	8	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	3	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	2	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	0	0	0	0	1	1	0	0	0	0	0	0
[05:00-06:00]	14	1	1	0	0	0	0	0	0	0	0	0	0
[06:00-07:00]	32	2	2	0	0	0	0	0	0	0	0	0	0
[07:00-08:00]	86	5	4	1	0	1	0	0	0	0	0	1	0
[08:00-09:00]	73	10	8	2	0	2	1	1	0	0	0	0	0
[09:00-10:00]	71	6	5	1	0	3	2	1	0	0	0	0	0
[10:00-11:00]	89	7	6	1	0	1	0	0	0	0	0	0	1
[11:00-12:00]	104	11	9	2	0	3	1	2	0	0	0	0	0
[12:00-13:00]	102	13	10	2	1	4	2	2	0	0	0	0	0
[13:00-14:00]	101	9	7	2	0	3	2	1	0	0	0	0	0
[14:00-15:00]	127	4	3	1	0	7	3	3	0	0	0	1	0
[15:00-16:00]	111	10	8	2	0	6	3	3	0	0	0	0	0
[16:00-17:00]	124	10	8	2	0	4	2	2	0	0	0	0	0
[17:00-18:00]	126	6	5	1	0	3	1	1	0	0	0	1	0
[18:00-19:00]	103	2	2	0	0	5	2	2	1	0	0	0	0
[19:00-20:00]	104	4	3	1	0	0	0	0	0	0	0	0	0
[20:00-21:00]	71	4	3	1	0	0	0	0	0	0	0	0	0
[21:00-22:00]	44	6	5	1	0	0	0	0	0	0	0	0	0
[22:00-23:00]	35	3	2	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	20	0	0	0	0	0	0	0	0	0	0	0	0

Location C32 - Lincoln Ave (SB) from Washington St to Wright St

Date : Wednesday, 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	15	0	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	6	0	0	0	0	1	0	0	0	0	0	1	0
[02:00-03:00]	2	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	1	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	7	0	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	16	0	0	0	0	1	0	0	0	0	0	1	0
[06:00-07:00]	38	2	2	0	0	2	1	1	0	0	0	0	0
[07:00-08:00]	80	8	6	2	0	4	2	2	0	0	0	0	0
[08:00-09:00]	89	6	5	1	0	2	1	1	0	0	0	0	0
[09:00-10:00]	96	8	6	2	0	2	1	1	0	0	0	0	0
[10:00-11:00]	69	6	5	1	0	4	2	2	0	0	0	0	0
[11:00-12:00]	113	10	8	2	0	0	0	0	0	0	0	0	0
[12:00-13:00]	120	6	5	1	0	9	4	4	0	0	0	1	0
[13:00-14:00]	123	5	4	1	0	2	1	1	0	0	0	0	0
[14:00-15:00]	146	2	2	0	0	0	0	0	0	0	0	0	0
[15:00-16:00]	147	11	9	2	0	2	1	1	0	0	0	0	0
[16:00-17:00]	136	9	7	2	0	2	1	1	0	0	0	0	0
[17:00-18:00]	136	9	7	2	0	7	3	3	0	0	0	1	0
[18:00-19:00]	100	10	8	2	0	5	3	2	0	0	0	0	0
[19:00-20:00]	84	3	2	1	0	3	2	1	0	0	0	0	0
[20:00-21:00]	78	2	2	0	0	1	0	0	0	0	0	0	1
[21:00-22:00]	53	2	2	0	0	2	1	1	0	0	0	0	0
[22:00-23:00]	34	0	0	0	0	1	0	0	1	0	0	0	0
[23:00-00:00]	25	2	2	0	0	0	0	0	0	0	0	0	0

Location 33 - Washington Street (EB) from U.S. 41 to Lincoln Ave
Date: Tuesday 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	50	2	2	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	26	1	1	0	0	1	0	0	0	0	0	1	0
[02:00-03:00]	9	2	2	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	13	2	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	31	0	0	0	0	2	1	1	0	0	0	0	0
[05:00-06:00]	66	4	3	1	0	4	2	2	0	0	0	0	0
[06:00-07:00]	174	19	15	4	0	12	5	5	1	0	0	1	0
[07:00-08:00]	337	36	29	7	0	9	4	4	0	0	0	1	0
[08:00-09:00]	386	31	25	6	0	16	8	7	0	0	0	1	0
[09:00-10:00]	370	33	27	6	0	16	7	7	0	1	0	1	0
[10:00-11:00]	371	34	27	6	1	10	5	4	0	0	0	1	0
[11:00-12:00]	477	41	33	8	0	18	8	7	0	1	0	1	1
[12:00-13:00]	526	37	30	7	0	25	11	11	1	0	0	2	0
[13:00-14:00]	492	40	32	8	0	18	8	8	1	0	0	1	0
[14:00-15:00]	510	41	33	8	0	21	10	9	0	0	0	2	0
[15:00-16:00]	477	54	43	11	0	13	6	6	0	0	0	1	0
[16:00-17:00]	479	30	24	6	0	16	8	7	0	0	0	1	0
[17:00-18:00]	450	36	29	7	0	13	6	6	0	0	0	1	0
[18:00-19:00]	373	32	26	6	0	7	3	3	0	0	0	1	0
[19:00-20:00]	321	18	15	3	0	5	2	2	1	0	0	0	0
[20:00-21:00]	247	18	15	3	0	3	1	1	0	0	0	0	1
[21:00-22:00]	179	13	10	2	1	3	2	1	0	0	0	0	0
[22:00-23:00]	149	7	6	1	0	2	1	1	0	0	0	0	0
[23:00-00:00]	81	2	2	0	0	1	0	0	0	0	0	0	1

Location 33 - Washington Street (EB) from U.S. 41 to Lincoln Ave
Date: Wednesday 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	44	1	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	22	1	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	11	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	14	1	1	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	31	3	2	1	0	3	1	1	1	0	0	0	0
[05:00-06:00]	62	6	5	1	0	3	2	1	0	0	0	0	0
[06:00-07:00]	187	18	15	3	0	1	0	0	1	0	0	0	0
[07:00-08:00]	345	25	20	5	0	13	6	6	0	0	0	1	0
[08:00-09:00]	321	31	25	6	0	12	5	5	0	0	0	2	0
[09:00-10:00]	404	51	41	10	0	13	6	6	0	0	0	1	0
[10:00-11:00]	416	33	27	6	0	15	7	6	1	0	0	1	0
[11:00-12:00]	463	36	29	7	0	10	5	4	0	0	0	1	0
[12:00-13:00]	610	51	41	10	0	24	11	10	0	1	0	2	0
[13:00-14:00]	482	36	29	7	0	20	9	9	1	0	0	1	0
[14:00-15:00]	545	39	31	7	1	18	8	8	0	0	0	1	1
[15:00-16:00]	488	38	31	7	0	18	8	8	0	0	0	1	1
[16:00-17:00]	519	40	32	8	0	15	7	6	0	0	0	2	0
[17:00-18:00]	471	34	27	6	1	20	10	9	0	0	0	1	0
[18:00-19:00]	425	23	19	4	0	11	5	5	0	0	0	1	0
[19:00-20:00]	312	14	11	3	0	12	5	5	0	1	0	1	0
[20:00-21:00]	261	16	13	3	0	6	3	3	0	0	0	0	0
[21:00-22:00]	194	7	6	1	0	3	1	1	0	0	0	0	1
[22:00-23:00]	124	6	5	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	79	4	3	1	0	0	0	0	0	0	0	0	0

Location 33 - Washington Street (WB) from U.S. 41 to Lincoln Ave
Date: Tuesday 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	43	3	2	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	26	1	1	0	0	1	0	0	1	0	0	0	0
[02:00-03:00]	23	1	1	0	0	1	0	0	1	0	0	0	0
[03:00-04:00]	15	2	2	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	17	1	1	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	41	4	3	1	0	5	2	2	0	0	0	1	0
[06:00-07:00]	103	5	4	1	0	3	1	2	0	0	0	0	0
[07:00-08:00]	240	14	11	3	0	5	3	2	0	0	0	0	0
[08:00-09:00]	283	18	15	3	0	9	4	4	0	0	0	1	0
[09:00-10:00]	366	23	19	4	0	7	3	3	0	0	0	1	0
[10:00-11:00]	424	33	27	6	0	13	6	6	0	0	0	1	0
[11:00-12:00]	530	38	30	7	1	16	8	7	0	0	0	1	0
[12:00-13:00]	600	44	36	8	0	12	5	5	1	0	0	1	0
[13:00-14:00]	549	27	22	5	0	17	8	7	0	0	0	2	0
[14:00-15:00]	606	42	34	8	0	18	8	8	0	1	0	1	0
[15:00-16:00]	621	34	27	7	0	20	10	9	0	0	0	1	0
[16:00-17:00]	659	43	34	8	1	23	10	10	0	0	0	2	1
[17:00-18:00]	590	33	27	6	0	15	7	6	0	1	0	1	0
[18:00-19:00]	440	30	24	6	0	7	3	3	0	0	0	1	0
[19:00-20:00]	411	27	22	5	0	3	2	1	0	0	0	0	0
[20:00-21:00]	317	12	10	2	0	6	3	3	0	0	0	0	0
[21:00-22:00]	197	8	6	2	0	4	2	2	0	0	0	0	0
[22:00-23:00]	110	6	5	1	0	1	0	0	1	0	0	0	0
[23:00-00:00]	110	4	3	1	0	1	0	0	0	0	0	0	1

Location 33 - Washington Street (WB) from U.S. 41 to Lincoln Ave
Date: Wednesday 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	33	3	2	1	0	0	0	0	0	0	0	0	0
[01:00-02:00]	24	1	1	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	26	1	1	0	0	1	0	0	1	0	0	0	0
[03:00-04:00]	10	0	0	0	0	1	0	0	1	0	0	0	0
[04:00-05:00]	22	0	0	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	47	3	2	1	0	3	1	1	0	1	0	0	0
[06:00-07:00]	112	8	6	2	0	4	2	2	0	0	0	0	0
[07:00-08:00]	242	18	15	3	0	5	3	2	0	0	0	0	0
[08:00-09:00]	271	23	19	4	0	6	3	3	0	0	0	0	0
[09:00-10:00]	392	31	25	6	0	12	5	6	0	0	0	1	0
[10:00-11:00]	466	34	27	7	0	8	4	3	0	0	0	1	0
[11:00-12:00]	528	53	43	10	0	10	5	4	0	0	0	1	0
[12:00-13:00]	595	45	36	8	1	22	10	9	0	0	0	2	1
[13:00-14:00]	591	45	36	9	0	11	5	5	0	0	0	1	0
[14:00-15:00]	630	45	36	9	0	14	7	6	0	0	0	1	0
[15:00-16:00]	655	44	36	8	0	23	10	10	1	0	0	2	0
[16:00-17:00]	711	45	36	8	1	22	10	9	0	0	0	2	1
[17:00-18:00]	539	47	38	9	0	15	7	6	1	0	0	1	0
[18:00-19:00]	406	23	19	4	0	12	5	5	0	1	0	1	0
[19:00-20:00]	399	20	16	4	0	9	4	4	0	0	0	1	0
[20:00-21:00]	310	15	12	3	0	6	3	3	0	0	0	0	0
[21:00-22:00]	210	7	6	1	0	6	3	3	0	0	0	0	0
[22:00-23:00]	121	6	5	1	0	0	0	0	0	0	0	0	0
[23:00-00:00]	102	2	2	0	0	0	0	0	0	0	0	0	0

Location 34 - Washington Street (EB) from Lincoln Ave to Lakeshore Blvd
Date: Tuesday 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	36	0	0	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	13	0	0	0	0	1	0	0	1	0	0	0	0
[02:00-03:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	12	2	2	0	0	1	0	0	0	0	0	0	1
[05:00-06:00]	33	5	4	1	0	3	1	1	1	0	0	0	0
[06:00-07:00]	67	12	10	2	0	3	2	1	0	0	0	0	0
[07:00-08:00]	173	13	10	3	0	9	4	4	0	0	0	1	0
[08:00-09:00]	307	9	7	2	0	5	3	2	0	0	0	0	0
[09:00-10:00]	277	16	13	3	0	2	1	1	0	0	0	0	0
[10:00-11:00]	309	16	13	3	0	4	2	2	0	0	0	0	0
[11:00-12:00]	410	19	15	4	0	9	4	4	0	0	0	1	0
[12:00-13:00]	462	16	13	3	0	7	3	3	0	0	0	1	0
[13:00-14:00]	424	10	8	2	0	7	3	3	0	0	0	1	0
[14:00-15:00]	372	34	27	6	1	13	6	6	0	0	0	1	0
[15:00-16:00]	359	20	16	4	0	7	3	3	0	0	0	1	0
[16:00-17:00]	354	25	20	5	0	23	11	10	0	0	0	2	0
[17:00-18:00]	307	28	23	5	0	12	5	6	0	0	0	1	0
[18:00-19:00]	288	17	14	3	0	6	3	3	0	0	0	0	0
[19:00-20:00]	228	15	12	3	0	7	3	3	0	0	0	1	0
[20:00-21:00]	163	7	6	1	0	3	2	1	0	0	0	0	0
[21:00-22:00]	113	6	5	1	0	3	1	1	1	0	0	0	0
[22:00-23:00]	104	4	3	1	0	5	3	2	0	0	0	0	0
[23:00-00:00]	49	2	2	0	0	1	0	0	0	1	0	0	0

Location 34 - Washington Street (EB) from U.S. 41 to Lakeshore Blvd
Date: Wednesday 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	21	1	1	0	0	0	0	0	0	0	0	0	0
[01:00-02:00]	11	0	0	0	0	1	0	0	0	0	0	1	0
[02:00-03:00]	7	0	0	0	0	0	0	0	0	0	0	0	0
[03:00-04:00]	5	0	0	0	0	0	0	0	0	0	0	0	0
[04:00-05:00]	20	2	2	0	0	2	1	1	0	0	0	0	0
[05:00-06:00]	33	2	2	0	0	1	0	0	1	0	0	0	0
[06:00-07:00]	69	3	2	1	0	5	3	2	0	0	0	0	0
[07:00-08:00]	212	11	9	2	0	2	1	1	0	0	0	0	0
[08:00-09:00]	243	7	6	1	0	4	2	2	0	0	0	0	0
[09:00-10:00]	344	21	17	4	0	6	3	3	0	0	0	0	0
[10:00-11:00]	345	14	11	3	0	5	2	2	0	0	0	1	0
[11:00-12:00]	434	18	15	3	0	4	2	2	0	0	0	0	0
[12:00-13:00]	504	18	15	3	0	9	4	4	0	0	0	1	0
[13:00-14:00]	472	20	16	4	0	9	4	4	0	0	0	1	0
[14:00-15:00]	465	21	17	4	0	8	4	3	0	0	0	1	0
[15:00-16:00]	417	28	23	5	0	9	4	4	0	0	0	1	0
[16:00-17:00]	383	22	18	4	0	16	8	7	0	0	0	1	0
[17:00-18:00]	398	21	17	4	0	11	5	5	0	0	0	1	0
[18:00-19:00]	396	12	10	2	0	1	0	0	0	1	0	0	0
[19:00-20:00]	281	5	4	1	0	2	1	1	0	0	0	0	0
[20:00-21:00]	242	5	4	1	0	1	0	0	1	0	0	0	0
[21:00-22:00]	116	9	7	2	0	2	1	1	0	0	0	0	0
[22:00-23:00]	83	1	1	0	0	1	0	0	0	0	0	0	1
[23:00-00:00]	44	3	2	1	0	0	0	0	0	0	0	0	0

Location 34 - Washington Street (WB) from U.S. 41 to Lakeshore Blvd
Date: Tuesday 09/30/2014

	PC Total	SU Total	SU			MU Total	MU						
Tue,Sept/30/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	18	3	2	1	0	1	0	1	0	0	0	0	0
[01:00-02:00]	16	0	0	0	0	0	0	0	0	0	0	0	0
[02:00-03:00]	15	0	0	0	0	1	0	0	1	0	0	0	0
[03:00-04:00]	6	0	0	0	0	1	0	0	0	0	0	0	1
[04:00-05:00]	9	2	2	0	0	0	0	0	0	0	0	0	0
[05:00-06:00]	17	7	6	1	0	1	0	0	0	0	0	0	1
[06:00-07:00]	39	2	2	0	0	3	1	2	0	0	0	0	0
[07:00-08:00]	108	13	10	2	1	5	3	2	0	0	0	0	0
[08:00-09:00]	149	15	12	3	0	10	5	4	0	0	0	1	0
[09:00-10:00]	249	18	15	3	0	11	5	5	0	0	0	1	0
[10:00-11:00]	233	33	27	6	0	13	6	6	0	0	0	1	0
[11:00-12:00]	314	32	26	6	0	23	11	10	0	0	0	2	0
[12:00-13:00]	323	45	35	9	1	22	10	9	0	1	0	2	0
[13:00-14:00]	343	21	17	4	0	17	8	7	1	0	0	1	0
[14:00-15:00]	363	33	27	6	0	24	11	10	1	0	0	2	0
[15:00-16:00]	338	32	26	6	0	19	9	8	0	1	0	1	0
[16:00-17:00]	402	37	30	7	0	18	8	9	0	0	0	1	0
[17:00-18:00]	318	32	26	6	0	26	12	11	1	0	0	2	0
[18:00-19:00]	271	27	22	5	0	10	5	4	0	0	0	1	0
[19:00-20:00]	228	26	21	5	0	9	4	4	0	0	0	1	0
[20:00-21:00]	134	8	6	2	0	10	5	4	0	0	0	1	0
[21:00-22:00]	86	7	6	1	0	1	0	0	1	0	0	0	0
[22:00-23:00]	55	4	3	1	0	2	1	1	0	0	0	0	0
[23:00-00:00]	54	3	2	1	0	1	0	0	0	0	0	0	1

Location 34 - Washington Street (WB) from U.S. 41 to Lakeshore Blvd
Date: Wednesday 10/01/2014

	PC Total	SU Total	SU			MU Total	MU						
Wed,Oct/01/2014			Class 5	Class 6	Class 7		Class 4	Class 8	Class 10	Class 11	Class 12	Class 9	Class 13
[00:00-01:00]	29	0	0	0	0	2	1	1	0	0	0	0	0
[01:00-02:00]	15	1	1	0	0	1	0	1	0	0	0	0	0
[02:00-03:00]	17	1	1	0	0	1	1	0	0	0	0	0	0
[03:00-04:00]	5	1	1	0	0	1	0	0	0	1	0	0	0
[04:00-05:00]	13	0	0	0	0	2	1	1	0	0	0	0	0
[05:00-06:00]	27	7	6	1	0	2	1	1	0	0	0	0	0
[06:00-07:00]	63	3	2	1	0	1	0	0	1	0	0	0	0
[07:00-08:00]	111	17	14	3	0	9	4	4	0	0	0	1	0
[08:00-09:00]	135	18	15	3	0	12	5	5	0	0	0	2	0
[09:00-10:00]	220	27	22	5	0	16	8	7	0	0	0	1	0
[10:00-11:00]	258	34	27	7	0	19	9	8	0	0	0	1	1
[11:00-12:00]	273	39	31	7	1	16	7	7	0	0	0	2	0
[12:00-13:00]	351	43	35	8	0	19	9	8	1	0	0	1	0
[13:00-14:00]	352	36	29	7	0	29	13	12	1	0	0	2	1
[14:00-15:00]	342	37	30	7	0	19	9	8	0	1	0	1	0
[15:00-16:00]	326	35	28	7	0	25	11	11	1	0	0	2	0
[16:00-17:00]	407	34	27	6	1	27	12	12	1	0	0	2	0
[17:00-18:00]	359	31	25	6	0	11	5	5	0	0	0	1	0
[18:00-19:00]	324	19	15	4	0	13	6	6	0	0	0	1	0
[19:00-20:00]	268	17	14	3	0	18	9	8	0	0	0	1	0
[20:00-21:00]	195	14	11	3	0	10	5	4	0	0	0	1	0
[21:00-22:00]	123	5	4	1	0	3	1	1	0	1	0	0	0
[22:00-23:00]	62	11	9	2	0	1	0	0	0	0	0	0	1
[23:00-00:00]	37	5	4	1	0	0	0	0	0	0	0	0	0

APPENDIX C

STAKEHOLDER INPUT

BOARD OF LIGHT AND POWER

CITY OF MARQUETTE
2200 WRIGHT STREET
MARQUETTE, MI 49855-1398

PAUL A. KITTI
EXECUTIVE DIRECTOR

PHONE 906-228-0313
FAX 906-228-0329
PLANT FAX 906-228-0359

January 22, 2014

Mr. Keith Wittington
City Engineer/Street Administrator
850 West Baraga Avenue
Marquette, MI 49855

Dear Mr. Wittington:

I have received your letter dated January 17, 2014, regarding the current City-wide traffic study being conducted by DLZ Michigan. We have been in limited contact with DLZ regarding settings of the existing City owned traffic controls. We have provided the information they have requested in a printed format as they do not possess the software necessary to read the computer programs within the traffic control systems. We appreciate the opportunity to provide input to the City Engineering Department regard the City traffic issues.

Currently the Marquette Board of Light and Power, (BLP), provides for the maintenance of the City owned traffic signal equipment. Through the years the BLP has been able to acquire upgraded signal control equipment through the grant process and through reclamation from the Michigan Department of Transportation, (MDOT), at no cost to the City. The City currently owns 16 traffic controllers and conflict monitors which provide for traffic control on 20 intersections. Our main concern is that several of these locations are equipped with traffic controllers that are obsolete and no longer supported by the manufacturer. Five (5) of these locations are being controlled with equipment dating back to the 1990's. Listing Attached. The BLP would like the DLZ study to include recommendations to the City on the best practice for maintaining and upgrading/replacing traffic control equipment and devices. The City has incurred increasing maintenance invoices from the BLP to maintain and repair the existing equipment after it fails. I would like to see to study address a more proactive approach for these systems allowing the City to adequately budget for the operational expenditures required to maintain the traffic controller systems. I would also like to see recommendations from the study to standardize the controller systems and the installation specifications for all signal controlled intersections. In the long term this would have a beneficial fiscal effect on the City budget allowing for more inter-operability between systems. It would also allow for the BLP to reduce current inventories of spare parts needed to maintain these systems.

The BLP currently has approximately $40,000.00 in traffic signal inventory that we are stocking for maintaining the current systems. This inventory is billed to the City only after it has been used to repair and or replace existing equipment.

As we discussed in our joint session on December 4, 2013, with the City department heads and the MBLP, this may be the right time to have DLZ incorporate a plan for the future direction of the City owned traffic control system. This may include centralized programming and control from the Police Department to adjust for changes in the City traffic flows, coordinated timing patterns, etc. I would also like to re-iterate that if the City intends on continuing with the arrangement of the BLP providing maintenance services for these systems, that training is required to keep our current technicians proficient in the operation, programing and maintenance of the signal systems. These costs are billed to the City. I appreciate the opportunity for the BLP to comment on the City traffic study and my Staff and I stand ready to answer any questions you may have.

Respectfully,

David A. Lynch
Assistant Director – Utility Operations

Copy: P. Kitti, K. Downs, Board Chairman
Attachment: Spreadsheet of existing systems

Traffic Signal and Intersection Locations - Maintenance Report 1-23-2014

The following items have been identified as maintenance issues needing to be addressed by the MBLP .

Location	Controller Date	Con. Date	TYPE	Cabinet Cond.	Pole Cond.	Pin Cond.	Clevis Cond.	Head Cond.	Junction Box Cond.	Ped. Cond/ Type	Ped Size	Loops
	(15 Years)	(18 Years)										
Hewitt/ Front	1999	2005	EPAC 300	Good	Poor	2013	Poor	Fair	Poor	Combo/ Good	12'	No
Hewitt/ Third					Good	2013	?	?	Poor	Combo	12"	No
Lincoln/ College	2003	2003	EPAC 300	Cab OK/ Bad Straps	Poor	?	?	Good	Good	None	-	No
Lincoln/ Fair					Fair	Good	Poor	Good	Good	None	-	No
Presque Isle / College	2005	2005	EPAC 300	Good	Good	2013	?	Good	?	Combo	12"	No
Presque Isle/ Magnetic					Good	2013	?	Good	?	Combo	12"	No
Seventh/ College	2005	1994	EPAC 300	Poor- Obsolete	Good	?	?	Good	Poor	None	-	No
Seventh/ Magnetic				Wire Damaged	Good	?	?	Poor	Good	None	-	No
Wright/ P.I.	2006	2005	EPAC 300	Good	Good	Good	Good	Good	N/A	Combo	12"	Yes
Wright/ Sugar Loaf	2000	2000	EPAC 300	Good	Good	Good	Good	Good	N/A	Combo	12"	?
Wright/ McClellan	2011	2011	TS2 SEIM.	Good	Good	Good	Good	Good	N/A	Combo	16"- C/D	Yes
McClellan/ Fair	2012	2011	TS2 SEIM.	Good	Good	Good	Good	Good	N/A	Combo	16"-C/D	Yes
Wash./ McClellan	2000	2002	EPIC 140	Poor- Obsolete	?	2013	?	?	N/A	Split	12"	?
Wash./ Lincoln	2013	2013	TS2 SEIM.	Good	Good	2013	2013	2013	N/A	Combo	16"-C/D	Yes
Wash. / Seventh	2006	2006	EPAC 300	Good	Good	Good	Good	Good	N/A	Combo	12"	Yes
Wash./ Fifth	1994	1994	EPIC 140	Poor- Obsolete	Good	?	?	8" Heads	Poor	Split	12"	?
Wash./ Fourth	2004	2004	EPAC 300	Good	Good	?	?	Good	N/A	Combo	12"	?
Wash./ Third	2004	2004	EPAC 300	Good	Good	?	?	Good	N/A	Combo	12"	?
Wash./ Front	2005	1994	EPIC 140	Poor- Obsolete	Good	?	?	OK	N/A	Split	12"	Yes
Front/ Spring	1993	1994	EPIC 140	Poor- Obsolete	Good	2013	?	8" Heads	Poor	Split	12"	?

PHONE RECORD

DATE:	January 15, 2014
CLIENT:	City of Marquette, MI
PROJECT:	Marquette Traffic Study
PROJECT #:	1341-6553-00
PURPOSE OF CALL:	Marquette Traffic Study Input
ATTENDED BY:	Charles Teuer, DLZ Kathy Meyerkord, DLZ Jim Thams, NMU Art Bishop, NMU Kathy Richards, NMU

Discussion:

Pedestrians:

1. Significant pedestrian traffic between the main campus and the Jacobetti Center
2. Pedestrians cross the west leg of the Wright/Sugar Loaf intersection
3. Need sidewalk along Wright Avenue between Sugar Loaf and Presque Isle, also north side of Wright west of Sugar Loaf
4. Pedestrians cross Wright at commuter parking lot on north side of Wright between Sugar Loaf and Lincoln. NMU added high visibility cross walk this year. Speed limit is 25 mph now and there is no lighting.
5. Lincoln Avenue between Wright and Center, pedestrians crossing between campus and large apartment complex on west side of Lincoln. Need additional crosswalk.
6. Presque Isle north of Fair at two flashing stop controlled intersections: heavy pedestrian crossings. Wide right of way, pedestrian refuge island has been suggested.
7. 7th Street entrance, vehicle entering campus at high speed, conflict with pedestrians crossing east to west. Posted speed limit is 25 mph. NMU necked down roadway at their entrance in attempt to slow traffic. Need to slow traffic on 7th Street.
8. Need continuous sidewalk along Fair west of 8th Street between City on street parking and McClintock.

9. No sidewalk on either side of Wright Avenue west of campus. Consider bike path to west off road instead of on-street.

Miscellaneous:

1. Lots of truck traffic on Wright Street. Impacts pedestrian and bike accommodations along Wright.
2. Proposed mining operation north of Marquette will increase trucks by 100/day
3. Most commuter traffic comes from west and south. Traffic flows fine within city limits
4. Difficult to make a left turn at Lincoln and Wright during peak traffic periods. Consider need for a traffic signal at this intersection
5. Campus Master Plan
    a. Includes proposed road changes
    b. Most probable road change is the closure of 7th Street entrance
    c. Connect Kaye and Fair across south side of campus in conjunction with 7th Street closure. Traffic from the north on Sugar Loaf would need to be directed around campus to the east if the through road of Tracy/7th Street is closed.
    d. Hospital move would impact these plans.
    e. Realign Kaye Entrance to intersect at Presque Isle/Kaye with roundabout.
6. Most campus related crashes occur at Sugar Loaf/Wright.
7. Pedestrian/Bikes conflict with vehicle/truck traffic on west leg of intersection. Desire to shift ped/bike traffic to cross east leg.
8. Fair and 3rd Street intersection: confusing as to who has right of way at this unsignalized intersection due to driveway that serves as the north leg of the intersection.
9. Fair/Presque Isle: Drivers make westbound left from Fair to southbound Presque Isle and then right to westbound Kaye. Queuing from Kaye can extend through both intersections.

The foregoing constitutes our understanding of matters discussed and conclusions reached. Please review these items and advise the undersigned, in writing and within five (5) business days, or any errors or omissions.

CC:
Wes Butch
Keith Whittington, City of Marquette
Greg Borzick, City of Marquette
Dennis Stachewicz, City of Marquette

DLZ REPRESENTATIVE

Charles H Teuer, PE, PTOE
Sr. Transportation Engineer

From: Keith Whittington [mailto:kwhittington@mqtcty.org]
Sent: Tuesday, February 04, 2014 7:24 AM
To: Wes Butch
Subject: Fwd: Traffic Study

Hi Wes,

Please see the fire chief's comments below. Currently the fire halls are located and Rock and Third, and Ohio and Front. The new consolidated hall will be located at the NW corner of Spring and Seventh.

Thank You!

Keith

---------- Forwarded message ----------
From: **Tom Belt** <tbelt@mqtcty.org>
Date: Fri, Jan 31, 2014 at 4:34 PM
Subject: Re: Traffic Study
To: Keith Whittington <kwhittington@mqtcty.org>

Keith,

The potential location of the consolidated fire station would probably need flashing red beacons and signage 300' both north and south on seventh street.

Other intersections that seem to provide us with problems are Lincoln/Washington.(executing north turn on to Lincoln when traffic is backed up at the signal)

Front and Washington. (proceeding either north or south through the signal when traffic is present)

I suspect that not much can be done about the locations cited, however, those two intersections are perennial logjams for emergency responses. We do try to avoid them as much as possible, however, we do get loused up there when we have no choice.

Tom B.

On Fri, Jan 31, 2014 at 11:07 AM, Keith Whittington <kwhittington@mqtcty.org> wrote:
Hi Tom,

The City has contracted with DLZ for a city wide traffic study. I have attached draft outline of what they envision being in the report. If you have any comments please let me know.

Thank You!

Keith
--
City of Marquette
City Engineer/Street Administrator
300 W. Baraga Avenue
Marquette, MI. 49855
906-228-0440
906-228-0445 (Fax)
kwhittington@mqtcty.org

February 18, 2014

Keith Whittington – City Engineer
City of Marquette
850 W. Baraga Ave.
Marquette, MI 49855

Dear Keith,

The Marquette Bikeability Committee met recently to discuss non-motorized deficiencies in the transportation network and potential improvements per your letter dated January 17. We appreciate the opportunity to provide comments as part of the city-wide traffic study and offer the following recommendations:

Bikeability Committee

Iron Ore Heritage Rec. Area
Kitchi-Mi-Kana Cycling
Marquette CVB
Marquette DDA
MQT Parks & Rec. Dept.
Noquemanon Trail Network
Michigan Energy Options
YMCA of Marquette County
Volunteer Members

C/o Brad Neumann
339 E. Arch St.
Marquette, MI 49855

906-235-2008
neuman36@gmail.com

Bicycle-related

- Addition of bike lanes to:
  - Washington (Lincoln to Seventh)
  - Presque Isle (Hawley to Fair)
  - Fair (Presque Isle to Lakeshore)
  - Division (553 to Genesee)
  - N. McClellan (Washington to W. Fair)
  - W. Fair (McClellan to Lincoln)
- Bike lane uphill and sharrow downhill on (and add sharrow signs):
  - Third (Ridge to Fair)
  - Seventh (Fisher to W. Fair)
  - Altamont (Hampton to Fisher)
- Add Bicycle Route signs along:
  - Altamont, Fisher, Seventh to W. Fair
  - Champion (from Genesee), Fisher, Third to Spring

Pedestrian-related

- Traffic calming and improved pedestrian crossing of:
  - S. Front at Genesee and Lakeshore
  - S. Front at Baraga
- Direct pedestrian access (ramp and/or stairs) from Main St. to the Marquette Commons (and marked crossing of Third)
- Pedestrian accommodations (sidewalk or wider paved shoulder) on south side of Wright St. extension from Presque Isle to Lakeshore
- Addition of sidewalks to:
  - East side of US-41/S. Front from Lakeshore to Hampton
  - Altamont from US-41 crossing to Mesnard
  - Mesnard from Division to Bothwell Middle School
  - East side of McClellan between Baraga and US-41
- Pedestrian bridge (multi-use tunnel) over (under) US-41 at McClellan (pedestrians will not go out of the way to the IOHT crossing)

By no means is the above list a complete assessment of all aspects of the City's bicycle and pedestrian accommodations/facilities. Our list of recommendations is based on the personal knowledge of our members and our individual familiarities with different areas of the city. As such, please accept our recommendations as an initial list of needed non-motorized transportation improvements.

Again, we thank you for the opportunity to provide feedback on needed non-motorized improvements to the transportation network. We would also like to thank the City for making the many bicycle and pedestrian improvements in the City to date. Please do not hesitate to contact me if you need any clarification on the recommendations herein.

Sincerely,

Brad Neumann

Brad Neumann, Chair
Marquette Bikeability Committee

MARQUETTE ACCESS GROUP

PROMOTING an INCLUSIVE COMMUNITY

Principals
David R. Boyd, Ph.D., Chair
Robert Chapman, V. Chair
Joan Reynolds Miller, Secretary
Don W. Miller, F.A.

February 12, 2014

City of Marquette
Keith Whittington, City Engineer/Street Administrator
850 West Baraga Avenue
Marquette, Michigan 49855

Dear Mr. Whittington:

The Marquette Access Group is pleased to respond to your letter of January 17, 2014 regarding the Traffic Study currently being conducted in the City of Marquette. These comments cover a broad spectrum of concerns, including major roads, streets, sidewalks, non-motorized traffic and public transit. In addition, some comments are based on general awareness.

While the following thoughts do not represent a complete and final commentary on this topic, they do indicate some of the more problematic issues people with disabilities deal with in their day-to-day travels and traffic encounters in the City of Marquette area.

1. PUBLIC TRANSPORTATION

a. *Could the MarqTran system provide fixed route service to the entirety of Third Street?*

b. *Could door-to-door service be routinely provided during evening hours in the MarqTran system?*

c. *Could the Marquette Shopper fixed bus service loop be extended from the City of Marquette to the shopping centers located immediately west of Walmart/Target?*

d. *Could safe stops and shelters be established on streets or at locations known to host patrons?*

e. *Could the current policy of stopping buses in moving traffic lanes, to discharge or take on passengers, including those using a wheelchair lift, be revised?*

f. *Could the MarqTran system also provide public door-to-door service at the same time it is solely dedicated to transporting persons undergoing dialysis?*

g. *Could the City of Marquette proper be served by IndianTrails inter-city buses? (Currently, passengers must find their way to Commerce Drive in Marquette Township for 2 a.m. and 6 a.m. buses at the MarqTran main facility. No restrooms are available to waiting passengers when MarqTran is closed. The new MarqTran Transfer Station located on the corner of Third Street and Spring Street is not used for IndianTrails buses).*

2. **ROADWAYS (non-snow season)**

   a. *Warmer weather often begins with local clouds of blowing sand whipped up by gusting spring winds. Due to the rough surface of many streets the use of dual action sweeping machines is inefficient and dust producing. Would a suitably powered vacuum unit possibly be more effective for this operation?*

   b. *The deteriorated condition of many of our streets is clearly apparent when using a wheelchair. The mechanized patching operations often overlook sizeable holes and cracks as well as smaller deteriorating areas which may lend themselves to preventive treatment.*

   c. *Could the amount of debris on the streets be reduced by adding electro magnet and vacuum units?*

   d. *Could non-motorized crossing of well-traveled roads be safer? (More noticeable overhead or roadside signage, control lights, audible signals, intersection caution signs, automatic camera/violation coverage, advisory signs at City entry points, cooperative educational effort with NMU and MSHS).*

   e. *On-street parking for disabled drivers or passengers is generally undesirable. Even off-street spaces for lift/ramp equipped vehicles are practically-speaking, under-sized and usually not situated for safe and easy maneuverability.*

   f. *Could most maintenance operations be more "conditions-timed" and less "calendar-timed"?*

3. **ROADWAYS (snow season)**

   a. *Could more off-street parking locations for people with disabilities be pursued? Parking spaces at curbside are not practical for those with mobility problems.*

   b. *Could snow ridges left at intersections be cleared as soon as possible following plowing?*

   c. *Could the temporary placement of a warning cone/flag alongside the near traffic lane when entering a street from a private drive be helpful when snow banks block a driver's vision?*

   d. *Could a bank topper be used for speedier clearance to increase vision?*

4. **SIDEWALKS (non-snow season)**

   a. *Could "Wet lines, control lines, break lines" routinely be specified as to be installed by saw to be as unobtrusive as possible when crossed by a wheelchair or those with mobility problems?*

   b. *Could existing hazardous intersection ramps be reinstalled to eliminate unacceptable slopes and other conditions arising from obsolete specifications?*

   c. *Could the sidewalk system be reviewed for excessive cross slopes, interruptions, etc.?*

   d. *Could corner lot hedges and fences be reviewed for ordinance noncompliance?*

   e. *Could work with NMU create pedestrian access with safe bus stops on their southwestern boundary (Norway Avenue between Kaye Avenue and Center Street)? On the southeastern boundary (Fair Avenue between Presque Isle Avenue and Pine Street)? On the boundary along the west side of Presque Isle Avenue (between Kaye Avenue and Waldo Street)? On the east side of Presque Isle Avenue (between Fair Avenue and Norwood Street) including the entrance walk at the Superior Dome sign?*

   f. *Could pressed concrete décor be minimized, by-passed or passed-through where ever it is proposed in a path of travel?*

5. EXISTING DOCUMENTS and REFERENCES

a. *The Marquette Access Group has submitted several documents and made numerous suggestions to the various divisions of the City of Marquette. We would like to recommend the Traffic Study participants read pertinent portions of the following and talk with the associated management personnel.*

- Third Street Project
- Tourist Park Master Plan
- Parks and Recreation Master Plan
- Presque Isle Park Children's Playground Plan
- Promotion Fund Narrative 12-29-10
- Marquette Arts and Culture Master Plan
- City of Marquette Master Plan

The Marquette Access Group is pleased to have been invited to submit comments as part of the Traffic Study. We look forward to learning the results and seeing them become part of Marquette. If we can be of help by clarifying any of the above or other possible concerns, please don't hesitate to contact Bob Chapman, upbob@charter.net or myself, drbmqt@aol.com.

Sincerely,

David Boyd, Chair

Marquette Traffic Study
Summary of Stakeholder Input

Intersection			Stakeholders Comments							
DLZ #	NS	EW	Kickoff Meeting	2/5/14 Comments from City	NMU	Fire Dept	BLP	Bikability Committee	Access Group	Mitigation Recommended?*
3	Presque Isle Avenue	Hawley Street								
5	Sugarloaf Avenue	Wright Street	x	x	x					x
6	McClellan Avenue	Wright Street								x
7	McClellan Avenue	Fair Avenue								x
8	McClellan Avenue	Cleveland Street								
9	Seventh Street	College Avenue					x			
10	Presque Isle Avenue	Center Street			x					
11	Presque Isle Avenue	Wright Street		x						x
12	Lakeshore Blvd	Wright Street	x	x						
14	Pine Street	Fair Avenue		x						
16	Presque Isle Avenue	Fair Avenue	x	x	x					x
17	Third Street	Fair Avenue		x	x					x
19	Presque Isle Avenue	Kaye Avenue			x					
21	Third Street	College Avenue								
24	Third Street	Magnetic Street								
30	Front Street	Hewitt Avenue					x			
36	Lakeshore Blvd	Baraga Avenue	x							x
37	Front Street	Baraga Avenue						x		x
38	Front Street	Spring Street					x			
41	Seventh Street	Spring Street				x				
42	Seventh Street	Baraga Avenue								
47	Altamont Street	Fisher Street								
48	Seventh Street	Fisher Street								
49	US 41	Grove Street	x							x
50	US 41	Genesee Street						x		
51	Division Street	Genesee Street								
52	Altamont Street	Genesee Street								
53	Altamont Street	Hampton Street								
54	Division Street	Hampton Street								
55	US 41	Hampton Street								x
56	Division Street	Joliet Road								
57	Division Street	Pioneer Road								
59	Division Street	McClellan Avenue								
60	Third Street	Spring Street	x							
61	US 41	Washington Street								x
62	McClellan Avenue	Ridge Street	x	x						x
63	McClellan Avenue	Washington Street	x				x			x
64	McClellan Avenue	Baraga Avenue								x
65	McClellan Avenue	US 41	x							
66	McClellan Avenue	O'Dovero Drive								x
67	McClellan Avenue	Grove Street	x	x						
69	Lincoln Avenue	Wright Street		x	x					x
70	Lincoln Avenue	Fair Avenue								
73	Lincoln Avenue	Washington Street				x				x
74	Seventh Street	Magnetic Street					x			
75	Seventh Street	Washington Street								x
76	Fifth Street	Washington Street	x				x			x
77	Fourth Street	Washington Street					x			x
78	Third Street	Washington Street								x
79	Front Street	Washington Street				x				x

	Corridor	From	To							
1	McClellan Avenue	US 41	Wright Street	x					x		
3	Seventh Street	US 41	Fair Avenue						x		x
4	Lincoln Avenue	Washington Street	Wright Street			x					x
5	Washington Street	US 41	Lakeshore Blvd	x					x		x
6	Sugarloaf Avenue	Wright Street	Hawley Street			x					
7	Wright Street	City Limits	Lakeshore Blvd			x			x		x
9	Presque Isle Avenue	College Avenue	Hawley Street	x		x			x	x	x
10	Third Street	Fisher Street	Fair Avenue	x					x		x
12	Pine Street	Ridge Street	Fair Avenue								x
15	Hewitt Avenue	Seventh Street	Lakeshore Blvd								x
16	Fair Avenue	City Limits	Seventh Street			x			x		
17	Fair Avenue	Presque Isle Avenue	Lakeshore Blvd						x	x	
	Division Street	McClellan Avenue	Genesee Street						x		x
	Altamont Street	Hampton Street	Fisher Street						x		x
	Mesnard Street	Tierney Street	Altamont Street						x		x

***Rows highlighted in blue require possible mitigation measures. Additional locations also have mitigation recommended and are noted as such.**

APPENDIX D

SIGNALIZED INTERSECTION CAPACITY ANALYSES

2013

AM PEAK HOUR
MID-DAY PEAK HOUR
PM PEAK HOUR

AM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	210	139	90	33	209	41	22	59	7	8	47	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.98		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	178.8	186.3	197.6	178.8	186.3	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	429	421	273	442	603	119	525	649	81	590	211	446
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1056	1055	684	1079	1509	299	1205	1620	202	1249	526	1115
Grp Volume(v), veh/h	228	0	249	36	0	272	24	0	72	9	0	159
Grp Sat Flow(s),veh/h/ln	1056	0	1739	1079	0	1809	1205	0	1822	1249	0	1641
Q Serve(g_s), s	11.7	0.0	6.0	1.5	0.0	6.4	0.8	0.0	1.5	0.3	0.0	3.9
Cycle Q Clear(g_c), s	18.0	0.0	6.0	7.5	0.0	6.4	4.7	0.0	1.5	1.7	0.0	3.9
Prop In Lane	1.00		0.39	1.00		0.17	1.00		0.11	1.00		0.68
Lane Grp Cap(c), veh/h	429	0	694	442	0	722	525	0	730	590	0	657
V/C Ratio(X)	0.53	0.00	0.36	0.08	0.00	0.38	0.05	0.00	0.10	0.02	0.00	0.24
Avail Cap(c_a), veh/h	607	0	987	624	0	1026	525	0	730	590	0	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	12.6	15.2	0.0	12.7	13.5	0.0	11.2	11.8	0.0	11.9
Incr Delay (d2), s/veh	1.0	0.0	0.3	0.1	0.0	0.3	0.2	0.0	0.3	0.0	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.8	0.0	2.2	0.4	0.0	2.4	0.2	0.0	0.6	0.1	0.0	1.4
Lane Grp Delay (d), s/veh	20.1	0.0	12.9	15.3	0.0	13.1	13.6	0.0	11.5	11.8	0.0	12.8
Lane Grp LOS	C		B	B		B	B		B	B		B
Approach Vol, veh/h		477			308			96			168	
Approach Delay, s/veh		16.4			13.3			12.0			12.7	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	29.9	29.9	30.0	30.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	34.0	24.0	24.0
Max Q Clear Time (g_c+I1), s	20.0	9.5	6.7	5.9
Green Ext Time (p_c), s	3.4	4.0	0.3	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	389	56	86	179	0	14	1	81	0	0	2
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	180.4	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	74	590	85	277	648	0	701	7	619	0	0	563
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.00	0.39	0.39	0.39	0.00	0.00	0.39
Sat Flow, veh/h	1	1541	221	889	1693	0	1409	18	1568	0	0	1425
Grp Volume(v), veh/h	486	0	0	93	195	0	15	0	89	0	0	2
Grp Sat Flow(s),veh/h/ln	1764	0	0	889	1693	0	1409	0	1586	0	0	1425
Q Serve(g_s), s	0.0	0.0	0.0	4.9	4.0	0.0	0.3	0.0	1.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.6	0.0	0.0	16.5	4.0	0.0	0.4	0.0	1.8	0.0	0.0	0.0
Prop In Lane	0.00		0.13	1.00		0.00	1.00		0.99	0.00		1.00
Lane Grp Cap(c), veh/h	748	0	0	277	648	0	701	0	626	0	0	563
V/C Ratio(X)	0.65	0.00	0.00	0.34	0.30	0.00	0.02	0.00	0.14	0.00	0.00	0.00
Avail Cap(c_a), veh/h	770	0	0	288	668	0	701	0	626	0	0	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	0.0	20.0	10.6	0.0	9.2	0.0	9.6	0.0	0.0	9.1
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.7	0.3	0.0	0.1	0.0	0.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.4	0.0	0.0	1.0	1.3	0.0	0.1	0.0	0.6	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	14.9	0.0	0.0	20.7	10.9	0.0	9.2	0.0	10.1	0.0	0.0	9.1
Lane Grp LOS	B			C	B		A		B			A
Approach Vol, veh/h		486			288			104			2	
Approach Delay, s/veh		14.9			14.1			9.9			9.1	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	24.4	24.4	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	13.6	18.5	3.8	2.0
Green Ext Time (p_c), s	1.7	0.4	0.4	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	151	63	45	46	6	19	215	235	15	90	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	607	325	135	419	424	59	595	181	197	144	596	18
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1284	834	346	1142	1087	152	1295	464	505	904	1528	47
Grp Volume(v), veh/h	33	0	232	49	0	57	21	0	489	16	0	101
Grp Sat Flow(s),veh/h/ln	1284	0	1180	1142	0	1239	1295	0	969	904	0	1575
Q Serve(g_s), s	0.8	0.0	7.5	1.7	0.0	1.5	0.5	0.0	19.5	0.0	0.0	2.1
Cycle Q Clear(g_c), s	2.3	0.0	7.5	9.2	0.0	1.5	2.6	0.0	19.5	19.5	0.0	2.1
Prop In Lane	1.00		0.29	1.00		0.12	1.00		0.52	1.00		0.03
Lane Grp Cap(c), veh/h	607	0	460	419	0	483	595	0	378	144	0	614
V/C Ratio(X)	0.05	0.00	0.50	0.12	0.00	0.12	0.04	0.00	1.29	0.11	0.00	0.16
Avail Cap(c_a), veh/h	607	0	460	419	0	483	595	0	378	144	0	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	11.6	15.1	0.0	9.8	10.8	0.0	15.3	25.0	0.0	9.9
Incr Delay (d2), s/veh	0.2	0.0	3.9	0.6	0.0	0.5	0.1	0.0	150.8	1.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	2.4	0.5	0.0	0.5	0.2	0.0	19.6	0.2	0.0	0.7
Lane Grp Delay (d), s/veh	10.7	0.0	15.5	15.6	0.0	10.2	10.9	0.0	166.0	26.6	0.0	10.5
Lane Grp LOS	B		B	B		B	B		F	C		B
Approach Vol, veh/h		265			106			510			117	
Approach Delay, s/veh		14.9			12.7			159.7			12.7	
Approach LOS		B			B			F			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	9.5	11.2	21.5	21.5
Green Ext Time (p_c), s	1.1	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	88.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	160	53	20	113	36	63	170	95	21	47	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.79	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	184.4	184.4	188.1	188.1	184.9	191.9	183.5	174.9	194.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	461	478	159	397	479	152	756	474	264	634	687	0
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	1.00	1.00	0.97	0.50	0.50	0.00
Sat Flow, veh/h	1227	1339	446	1129	1342	425	1359	949	528	1069	1373	0
Grp Volume(v), veh/h	14	0	232	22	0	162	68	0	288	23	51	0
Grp Sat Flow(s),veh/h/ln	1227	0	1785	1129	0	1767	1359	0	1477	1069	1373	0
Q Serve(g_s), s	0.6	0.0	6.7	1.0	0.0	4.6	0.2	0.0	0.2	0.8	1.4	0.0
Cycle Q Clear(g_c), s	5.1	0.0	6.7	7.8	0.0	4.6	1.5	0.0	0.2	1.0	1.4	0.0
Prop In Lane	1.00		0.25	1.00		0.24	1.00		0.36	1.00		0.00
Lane Grp Cap(c), veh/h	461	0	638	397	0	631	756	0	739	634	687	0
V/C Ratio(X)	0.03	0.00	0.36	0.06	0.00	0.26	0.09	0.00	0.39	0.04	0.07	0.00
Avail Cap(c_a), veh/h	461	0	638	397	0	631	756	0	739	634	687	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.7	0.0	16.7	19.5	0.0	16.0	0.0	0.0	0.2	9.1	9.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.6	0.3	0.0	1.0	0.2	0.0	1.5	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	3.1	0.3	0.0	2.0	0.0	0.0	0.4	0.2	0.5	0.0
Lane Grp Delay (d), s/veh	17.9	0.0	18.3	19.8	0.0	17.0	0.3	0.0	1.7	9.2	9.3	0.0
Lane Grp LOS	B		B	B		B	A		A	A	A	
Approach Vol, veh/h		246			184			356			74	
Approach Delay, s/veh		18.3			17.3			1.4			9.3	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	8.7	9.8	3.5	3.4
Green Ext Time (p_c), s	1.6	1.5	1.9	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	61	71	7	70	4	111	72	8	5	66	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.68	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	168.1	186.3	190.0	158.3	186.3	197.6	186.3	183.9	197.6	186.3	188.9	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	503	136	159	444	309	16	632	302	35	626	317	128
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1180	773	902	1050	1754	92	1279	1091	126	1296	1146	461
Grp Volume(v), veh/h	15	0	143	8	0	80	121	0	87	5	0	101
Grp Sat Flow(s),veh/h/ln	1180	0	1676	1050	0	1846	1279	0	1217	1296	0	1607
Q Serve(g_s), s	0.2	0.0	1.6	0.1	0.0	0.8	1.7	0.0	1.2	0.1	0.0	1.0
Cycle Q Clear(g_c), s	1.0	0.0	1.6	1.8	0.0	0.8	2.7	0.0	1.2	1.2	0.0	1.0
Prop In Lane	1.00		0.54	1.00		0.05	1.00		0.10	1.00		0.29
Lane Grp Cap(c), veh/h	503	0	295	444	0	325	632	0	337	626	0	445
V/C Ratio(X)	0.03	0.00	0.48	0.02	0.00	0.25	0.19	0.00	0.26	0.01	0.00	0.23
Avail Cap(c_a), veh/h	1642	0	1912	1457	0	2106	2340	0	1963	2356	0	2591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.0	0.0	7.9	8.7	0.0	7.5	7.0	0.0	6.0	6.5	0.0	5.9
Incr Delay (d2), s/veh	0.0	0.0	1.2	0.0	0.0	0.4	0.1	0.0	0.4	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.5	0.0	0.0	0.2	0.4	0.0	0.3	0.0	0.0	0.3
Lane Grp Delay (d), s/veh	8.0	0.0	9.1	8.7	0.0	7.9	7.1	0.0	6.4	6.5	0.0	6.2
Lane Grp LOS	A		A	A		A	A		A	A		A
Approach Vol, veh/h		158			88			208			106	
Approach Delay, s/veh		9.0			8.0			6.8			6.2	
Approach LOS		A			A			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	9.5	9.5	11.7	11.7
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	24.2	24.2	34.2	34.2
Max Q Clear Time (g_c+I1), s	3.6	3.8	4.7	3.2
Green Ext Time (p_c), s	0.9	0.9	1.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	23	17	22	4	56	26	36	105	1	0	105	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.99		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	0.82	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	188.2	195.7	194.6	188.6	194.6	187.2	187.2	191.0	184.4	183.1	188.1
Lanes	1	1	1	0	1	0	1	1	0	1	1	0
Cap, veh/h	646	815	581	71	529	231	579	699	6	120	540	213
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.42	0.43	0.43	0.42	0.00	0.43	0.42
Sat Flow, veh/h	1309	1882	1340	19	1220	534	1221	1612	14	1259	1247	492
Grp Volume(v), veh/h	25	18	24	93	0	0	39	0	115	0	0	159
Grp Sat Flow(s),veh/h/ln	1309	1882	1340	1773	0	0	1221	0	1626	1259	0	1739
Q Serve(g_s), s	0.7	0.3	0.6	0.0	0.0	0.0	1.2	0.0	2.6	0.0	0.0	3.4
Cycle Q Clear(g_c), s	2.6	0.3	0.6	1.9	0.0	0.0	4.7	0.0	2.6	0.0	0.0	3.4
Prop In Lane	1.00		1.00	0.04		0.30	1.00		0.01	1.00		0.28
Lane Grp Cap(c), veh/h	646	815	581	831	0	0	579	0	705	120	0	754
V/C Ratio(X)	0.04	0.02	0.04	0.11	0.00	0.00	0.07	0.00	0.16	0.00	0.00	0.21
Avail Cap(c_a), veh/h	646	815	581	831	0	0	579	0	705	120	0	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.9	9.7	9.8	10.3	0.0	0.0	12.1	0.0	10.4	0.0	0.0	10.7
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.3	0.0	0.0	0.2	0.0	0.5	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.1	0.2	0.8	0.0	0.0	0.4	0.0	1.0	0.0	0.0	1.4
Lane Grp Delay (d), s/veh	11.1	9.8	9.9	10.5	0.0	0.0	12.3	0.0	10.9	0.0	0.0	11.3
Lane Grp LOS	B	A	A	B			B		B			B
Approach Vol, veh/h		67			93			154			159	
Approach Delay, s/veh		10.3			10.5			11.2			11.3	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	4.6	3.9	6.7	5.4
Green Ext Time (p_c), s	0.6	0.6	1.2	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	53	38	3	125	2	58	125	1	0	112	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	186.0	192.8	188.1	184.4	188.1	188.1	188.1	191.9	185.3	180.8	189.0
Lanes	1	1	0	0	1	0	1	1	0	1	1	0
Cap, veh/h	320	188	133	91	334	5	907	841	6	172	934	161
Arrive On Green	0.19	0.19	0.16	0.19	0.19	0.16	0.62	0.62	0.60	0.00	0.62	0.60
Sat Flow, veh/h	1243	1006	711	18	1787	26	1249	1352	10	1241	1503	259
Grp Volume(v), veh/h	16	0	99	141	0	0	63	0	137	0	0	143
Grp Sat Flow(s),veh/h/ln	1243	0	1717	1831	0	0	1249	0	1362	1241	0	1761
Q Serve(g_s), s	0.5	0.0	2.1	0.0	0.0	0.0	0.9	0.0	1.8	0.0	0.0	1.4
Cycle Q Clear(g_c), s	3.3	0.0	2.1	2.8	0.0	0.0	2.3	0.0	1.8	0.0	0.0	1.4
Prop In Lane	1.00		0.41	0.02		0.01	1.00		0.01	1.00		0.15
Lane Grp Cap(c), veh/h	320	0	321	430	0	0	907	0	847	172	0	1095
V/C Ratio(X)	0.05	0.00	0.31	0.33	0.00	0.00	0.07	0.00	0.16	0.00	0.00	0.13
Avail Cap(c_a), veh/h	861	0	1068	1223	0	0	907	0	847	172	0	1095
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	14.9	15.0	0.0	0.0	3.7	0.0	3.3	0.0	0.0	3.3
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.4	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	0.8	1.2	0.0	0.0	0.2	0.0	0.5	0.0	0.0	0.4
Lane Grp Delay (d), s/veh	16.5	0.0	15.4	15.4	0.0	0.0	3.9	0.0	3.7	0.0	0.0	3.5
Lane Grp LOS	B		B	B			A		A			A
Approach Vol, veh/h		115			141			200			143	
Approach Delay, s/veh		15.6			15.4			3.8			3.5	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	11.8	11.8	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	5.3	4.8	4.3	3.4
Green Ext Time (p_c), s	0.9	0.9	1.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Notes

HCM 2010 Signalized Intersection Summary
30: Front St & Hewitt Ave

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	7	8	7	21	6	15	88	7	1	67	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	182.4	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	232	208	196	151	410	113	135	761	60	53	810	110
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	474	608	573	260	1196	329	157	1568	123	3	1667	226
Grp Volume(v), veh/h	26	0	0	38	0	0	120	0	0	84	0	0
Grp Sat Flow(s),veh/h/ln	1654	0	0	1784	0	0	1848	0	0	1896	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.0	0.0	0.0	2.4	0.0	0.0	1.7	0.0	0.0
Prop In Lane	0.35		0.35	0.21		0.18	0.13		0.07	0.01		0.12
Lane Grp Cap(c), veh/h	636	0	0	674	0	0	956	0	0	973	0	0
V/C Ratio(X)	0.04	0.00	0.00	0.06	0.00	0.00	0.13	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	636	0	0	674	0	0	956	0	0	973	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.3	0.0	0.0	15.4	0.0	0.0	9.9	0.0	0.0	9.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.0	0.4	0.0	0.0	1.0	0.0	0.0	0.7	0.0	0.0
Lane Grp Delay (d), s/veh	15.5	0.0	0.0	15.6	0.0	0.0	10.1	0.0	0.0	9.9	0.0	0.0
Lane Grp LOS	B			B			B			A		
Approach Vol, veh/h		26			38			120			84	
Approach Delay, s/veh		15.5			15.6			10.1			9.9	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	2.7	3.0	4.4	3.7
Green Ext Time (p_c), s	0.2	0.2	1.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
31: N 3rd St/N 3 rd St & Hewitt Ave

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	15	9	7	15	18	1	204	12	7	173	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	86	374	212	130	254	269	52	880	51	64	876	41
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	86	1091	620	203	739	785	1	1811	106	21	1804	84
Grp Volume(v), veh/h	29	0	0	44	0	0	236	0	0	205	0	0
Grp Sat Flow(s),veh/h/ln	1797	0	0	1728	0	0	1918	0	0	1909	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.2	0.0	0.0	5.0	0.0	0.0	4.3	0.0	0.0
Prop In Lane	0.10		0.34	0.18		0.45	0.00		0.06	0.04		0.04
Lane Grp Cap(c), veh/h	673	0	0	653	0	0	983	0	0	981	0	0
V/C Ratio(X)	0.04	0.00	0.00	0.07	0.00	0.00	0.24	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	673	0	0	653	0	0	983	0	0	981	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	15.5	0.0	0.0	10.6	0.0	0.0	10.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	0.0	0.5	0.0	0.0	2.1	0.0	0.0	1.8	0.0	0.0
Lane Grp Delay (d), s/veh	15.5	0.0	0.0	15.7	0.0	0.0	11.1	0.0	0.0	10.8	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		29			44			236			205	
Approach Delay, s/veh		15.5			15.7			11.1			10.8	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	2.7	3.2	7.0	6.3
Green Ext Time (p_c), s	0.3	0.3	2.6	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	14	11	4	28	302	0	0	184	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	0.0	186.3	0.0	186.3	186.3	197.6	178.8	186.3	0.0	0.0	186.3	197.6
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	333	0	420	238	79	830	1221	0	0	1093	109
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.66	0.66	0.00	0.00	1.00	1.00
Sat Flow, veh/h	0	1863	0	1774	1334	445	1108	1863	0	0	1666	167
Grp Volume(v), veh/h	0	0	0	15	0	16	30	328	0	0	0	220
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	0	1778	1108	1863	0	0	0	1833
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	0.5	0.7	5.2	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.5	0.0	0.5	0.7	5.2	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	1.00		0.25	1.00		0.00	0.00		0.09
Lane Grp Cap(c), veh/h	0	333	0	420	0	318	830	1221	0	0	0	1202
V/C Ratio(X)	0.00	0.00	0.00	0.04	0.00	0.05	0.04	0.27	0.00	0.00	0.00	0.18
Avail Cap(c_a), veh/h	0	333	0	420	0	318	830	1221	0	0	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	23.8	0.0	23.8	4.3	5.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.3	0.1	0.5	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.2	1.9	0.0	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	24.0	0.0	24.1	4.3	5.6	0.0	0.0	0.0	0.3
Lane Grp LOS				C		C	A	A				A
Approach Vol, veh/h		0			31			358			220	
Approach Delay, s/veh		0.0			24.1			5.5			0.3	
Approach LOS					C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	18.3	18.3	51.7	51.7
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	12.5	12.5	45.9	45.9
Max Q Clear Time (g_c+I1), s	0.0	2.5	7.2	2.0
Green Ext Time (p_c), s	0.0	0.0	3.6	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	4.6
HCM 2010 LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	19	169	32	19	63	113	110	350	54	34	526	96
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	186.0	191.0	190.0	190.0	193.8	193.7	186.3	186.3	191.8	184.4	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	111	207	39	133	83	149	203	1807	768	201	1789	760
Arrive On Green	0.16	0.14	0.14	0.16	0.14	0.14	0.11	0.49	0.49	0.11	0.49	0.49
Sat Flow, veh/h	1109	1520	289	1181	611	1096	1845	3725	1583	1827	3688	1568
Grp Volume(v), veh/h	21	0	219	29	0	271	175	556	86	42	649	119
Grp Sat Flow(s),veh/h/ln	1109	0	1809	1181	0	1707	1845	1863	1583	1827	1844	1568
Q Serve(g_s), s	1.5	0.0	9.5	1.9	0.0	10.9	7.5	7.2	2.4	1.7	8.8	3.4
Cycle Q Clear(g_c), s	12.4	0.0	9.5	11.5	0.0	10.9	7.5	7.2	2.4	1.7	8.8	3.4
Prop In Lane	1.00		0.16	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	247	133	0	233	203	1807	768	201	1789	760
V/C Ratio(X)	0.19	0.00	0.89	0.22	0.00	1.17	0.86	0.31	0.11	0.21	0.36	0.16
Avail Cap(c_a), veh/h	111	0	247	133	0	233	203	1807	768	201	1789	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	0.0	34.0	38.1	0.0	34.6	35.0	12.5	11.2	32.4	12.9	11.5
Incr Delay (d2), s/veh	0.8	0.0	30.0	0.8	0.0	111.0	35.4	0.4	0.3	2.4	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	6.4	0.6	0.0	11.8	5.3	2.9	0.8	0.9	3.5	1.2
Lane Grp Delay (d), s/veh	40.1	0.0	64.0	38.9	0.0	145.6	70.4	12.9	11.5	34.8	13.4	11.9
Lane Grp LOS	D		E	D		F	E	B	B	C	B	B
Approach Vol, veh/h		240			300			817			810	
Approach Delay, s/veh		61.9			135.3			25.1			14.3	
Approach LOS		E			F			C			B	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		20.0			20.0		15.0	45.0		15.0	45.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		10.9			10.9		8.8	38.8		8.8	38.8	
Max Q Clear Time (g_c+I1), s		14.4			13.5		9.5	9.2		3.7	10.8	
Green Ext Time (p_c), s		0.0			0.0		0.0	5.7		0.0	5.6	

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

Notes

HCM 2010 Signalized Intersection Summary
50: Genesee St & S Front St

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	62	45	48	31	26	5	20	949	63	0	370	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	483	249	264	420	462	82	553	1910	126	90	1839	187
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.55	0.55	0.55	0.00	0.55	0.55
Sat Flow, veh/h	1370	828	879	1288	1539	275	943	3458	228	510	3328	338
Grp Volume(v), veh/h	67	0	101	34	0	33	22	556	544	0	224	219
Grp Sat Flow(s),veh/h/ln	1370	0	1708	1288	0	1814	943	1863	1823	510	1863	1803
Q Serve(g_s), s	2.9	0.0	3.5	1.6	0.0	1.0	1.0	15.2	15.2	0.0	4.9	4.9
Cycle Q Clear(g_c), s	4.0	0.0	3.5	5.1	0.0	1.0	5.9	15.2	15.2	0.0	4.9	4.9
Prop In Lane	1.00		0.51	1.00		0.15	1.00		0.12	1.00		0.19
Lane Grp Cap(c), veh/h	483	0	512	420	0	544	553	1029	1007	90	1029	996
V/C Ratio(X)	0.14	0.00	0.20	0.08	0.00	0.06	0.04	0.54	0.54	0.00	0.22	0.22
Avail Cap(c_a), veh/h	483	0	512	420	0	544	553	1029	1007	90	1029	996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	20.8	22.7	0.0	20.0	10.6	11.4	11.4	0.0	9.1	9.1
Incr Delay (d2), s/veh	0.6	0.0	0.9	0.4	0.0	0.2	0.1	2.0	2.1	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	1.6	0.6	0.0	0.5	0.2	6.4	6.3	0.0	2.0	2.0
Lane Grp Delay (d), s/veh	22.0	0.0	21.7	23.1	0.0	20.2	10.8	13.5	13.5	0.0	9.6	9.6
Lane Grp LOS	C		C	C		C	B	B	B		A	A
Approach Vol, veh/h		168			67			1122			443	
Approach Delay, s/veh		21.8			21.7			13.4			9.6	
Approach LOS		C			C			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	50.0	50.0
Change Period (Y+Rc), s	6.0	6.0	5.8	5.8
Max Green Setting (Gmax), s	24.0	24.0	44.2	44.2
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	0	0	284	500	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	16
Total Lost time (s)				7.7	6.0	
Lane Util. Factor				0.95	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3539	3433	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3539	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	309	543	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	309	543	0
Turn Type				NA	NA	
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				32.3	34.0	
Effective Green, g (s)				32.3	34.0	
Actuated g/C Ratio				0.40	0.42	
Clearance Time (s)				7.7	6.0	
Lane Grp Cap (vph)				1428	1459	
v/s Ratio Prot				c0.09	c0.16	
v/s Ratio Perm						
v/c Ratio				0.22	0.37	
Uniform Delay, d1				15.6	15.7	
Progression Factor				1.00	0.08	
Incremental Delay, d2				0.3	0.7	
Delay (s)				15.9	2.0	
Level of Service				B	A	
Approach Delay (s)	0.0			15.9	2.0	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Volume (vph)	0	434	0	0	0	0	0	0	0	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	12	16	16	16	16	13	16	16	16
Total Lost time (s)		7.7								6.0
Lane Util. Factor		0.95								0.88
Frt		1.00								0.85
Flt Protected		1.00								1.00
Satd. Flow (prot)		3539								3158
Flt Permitted		1.00								1.00
Satd. Flow (perm)		3539								3158
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	472	0	0	0	0	0	0	0	543
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	472	0	0	0	0	0	0	0	543
Turn Type		NA								custom
Protected Phases		1								
Permitted Phases										2
Actuated Green, G (s)		32.3								34.0
Effective Green, g (s)		32.3								34.0
Actuated g/C Ratio		0.40								0.42
Clearance Time (s)		7.7								6.0
Lane Grp Cap (vph)		1428								1342
v/s Ratio Prot		c0.13								
v/s Ratio Perm										c0.17
v/c Ratio		0.33								0.40
Uniform Delay, d1		16.4								16.0
Progression Factor		1.00								2.40
Incremental Delay, d2		0.6								0.9
Delay (s)		17.0								39.2
Level of Service		B								D
Approach Delay (s)		17.0			0.0		0.0		39.2	
Approach LOS		B			A		A		D	

Intersection Summary			
HCM 2000 Control Delay	28.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 Signalized Intersection Summary
63: Washington St & McClellan Ave

4/28/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	87	316	26	55	226	38	44	379	110	56	152	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	184.4	176.8	195.6
Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Cap, veh/h	541	1533	124	494	1407	231	483	1126	324	334	1009	359
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.41	0.38	0.38	0.41	0.38
Sat Flow, veh/h	1087	3400	276	1007	3122	513	1147	2780	801	858	2490	886
Grp Volume(v), veh/h	95	187	184	60	145	142	48	275	257	61	115	111
Grp Sat Flow(s),veh/h/ln	1087	1863	1814	1007	1863	1772	1147	1863	1718	858	1768	1608
Q Serve(g_s), s	4.0	4.3	4.3	2.7	3.3	3.3	2.0	7.2	7.5	3.9	2.9	3.2
Cycle Q Clear(g_c), s	7.4	4.3	4.3	7.1	3.3	3.3	5.2	7.2	7.5	11.4	2.9	3.2
Prop In Lane	1.00		0.15	1.00		0.29	1.00		0.47	1.00		0.55
Lane Grp Cap(c), veh/h	541	840	818	494	840	799	483	755	696	334	716	651
V/C Ratio(X)	0.18	0.22	0.22	0.12	0.17	0.18	0.10	0.36	0.37	0.18	0.16	0.17
Avail Cap(c_a), veh/h	541	840	818	494	840	799	483	755	696	334	716	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	11.8	11.8	13.9	11.5	11.5	16.3	14.5	15.0	20.1	13.3	13.7
Incr Delay (d2), s/veh	0.7	0.6	0.6	0.5	0.4	0.5	0.4	1.4	1.5	1.2	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	1.9	1.8	0.7	1.4	1.4	0.6	3.2	3.1	0.9	1.2	1.2
Lane Grp Delay (d), s/veh	14.4	12.4	12.4	14.4	11.9	12.0	16.8	15.9	16.5	21.3	13.7	14.3
Lane Grp LOS	B	B	B	B	B	B	B	B	B	C	B	B
Approach Vol, veh/h		466			347			580			287	
Approach Delay, s/veh		12.8			12.4			16.2			15.6	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		37.7			37.7			32.4			32.4	
Change Period (Y+Rc), s		6.1			6.1			6.0			6.0	
Max Green Setting (Gmax), s		31.6			31.5			26.4			26.4	
Max Q Clear Time (g_c+I1), s		9.4			9.1			9.5			13.4	
Green Ext Time (p_c), s		4.3			4.3			3.2			2.9	

Intersection Summary												
HCM 2010 Ctrl Delay			14.4									
HCM 2010 LOS			B									

Notes

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE & US 41

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	515	207	0	340	0	0	125	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			2%			0%			6%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3397	1555		1781			1771	1413
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3397	1555		1781			1771	1413
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	560	225	0	370	0	0	136	58
RTOR Reduction (vph)	0	0	0	0	0	126	0	0	0	0	0	34
Lane Group Flow (vph)	0	0	0	0	560	99	0	370	0	0	136	24
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	2%	6%	11%	2%	5%	2%	2%	2%	4%	2%	2%	9%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1490	682		819			726	579
v/s Ratio Prot					c0.16			c0.21			0.08	
v/s Ratio Perm						0.06						0.02
v/c Ratio					0.38	0.14		0.45			0.19	0.04
Uniform Delay, d1					15.1	13.5		14.7			15.1	14.2
Progression Factor					1.00	1.00		0.09			1.00	1.00
Incremental Delay, d2					0.7	0.4		1.7			0.6	0.1
Delay (s)					15.8	13.9		3.0			15.7	14.3
Level of Service					B	B		A			B	B
Approach Delay (s)		0.0			15.3			3.0			15.2	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
110: McCLELLAN AVE/McCLELLEN AVE & US 41

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	443	101	0	0	0	0	340	141	0	125	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	20	20	20	20	20	20
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2006					2359	2006		2359	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2006					2359	2006		2359	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	482	110	0	0	0	0	370	153	0	136	0
RTOR Reduction (vph)	0	0	62	0	0	0	0	0	93	0	0	0
Lane Group Flow (vph)	0	482	48	0	0	0	0	370	60	0	136	0
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1552	880					928	789		1046	
v/s Ratio Prot		c0.14						c0.16			0.06	
v/s Ratio Perm			0.02						0.03			
v/c Ratio		0.31	0.05					0.40	0.08		0.13	
Uniform Delay, d1		14.6	12.9					17.4	15.2		13.1	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		0.5	0.1					1.3	0.2		0.3	
Delay (s)		15.1	13.0					18.7	15.3		0.3	
Level of Service		B	B					B	B		A	
Approach Delay (s)		14.7			0.0			17.7			0.3	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 Signalized Intersection Summary
70: LINCOLN AVE & W Fair Ave

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	74	103	2	46	5	88	72	16	4	55	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.79	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	177.9	167.3	196.6	199.6	192.8	199.6	195.6	183.9	195.6
Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Cap, veh/h	560	196	274	393	471	47	471	367	73	75	635	253
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.33	0.52	0.52	0.50	0.52	0.52	0.50
Sat Flow, veh/h	1353	560	784	1131	1347	135	738	710	141	23	1229	489
Grp Volume(v), veh/h	20	0	192	2	0	55	191	0	0	89	0	0
Grp Sat Flow(s),veh/h/ln	1353	0	1343	1131	0	1482	1589	0	0	1742	0	0
Q Serve(g_s), s	0.6	0.0	6.5	0.1	0.0	1.5	1.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	6.5	6.6	0.0	1.5	3.6	0.0	0.0	1.6	0.0	0.0
Prop In Lane	1.00		0.58	1.00		0.09	0.50		0.09	0.04		0.28
Lane Grp Cap(c), veh/h	560	0	470	393	0	519	911	0	0	963	0	0
V/C Ratio(X)	0.04	0.00	0.41	0.01	0.00	0.11	0.21	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	560	0	470	393	0	519	911	0	0	963	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.9	0.0	14.8	17.3	0.0	13.2	7.8	0.0	0.0	7.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.6	0.0	0.0	0.4	0.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	2.3	0.0	0.0	0.6	1.4	0.0	0.0	0.6	0.0	0.0
Lane Grp Delay (d), s/veh	14.0	0.0	17.4	17.3	0.0	13.6	8.4	0.0	0.0	7.6	0.0	0.0
Lane Grp LOS	B		B	B		B	A			A		
Approach Vol, veh/h		212			57			191			89	
Approach Delay, s/veh		17.1			13.7			8.4			7.6	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	35.0	35.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	20.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	8.5	8.6	5.6	3.6
Green Ext Time (p_c), s	0.8	0.8	1.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	54	27	36	73	64	66	110	98	54	102	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	178.8	178.8	197.6	178.8	178.8	197.6	178.8	178.8	197.6
Lanes	0	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	72	187	89	268	134	119	866	546	486	756	1095	20
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	21	1214	578	1236	868	769	1224	873	778	1103	1751	32
Grp Volume(v), veh/h	91	0	0	39	0	149	72	0	227	59	0	113
Grp Sat Flow(s),veh/h/ln	1813	0	0	1236	0	1638	1224	0	1651	1103	0	1783
Q Serve(g_s), s	0.0	0.0	0.0	1.6	0.0	4.6	1.4	0.0	3.3	1.3	0.0	1.4
Cycle Q Clear(g_c), s	2.4	0.0	0.0	4.0	0.0	4.6	2.7	0.0	3.3	4.6	0.0	1.4
Prop In Lane	0.03		0.32	1.00		0.47	1.00		0.47	1.00		0.02
Lane Grp Cap(c), veh/h	348	0	0	268	0	253	866	0	1032	756	0	1114
V/C Ratio(X)	0.26	0.00	0.00	0.15	0.00	0.59	0.08	0.00	0.22	0.08	0.00	0.10
Avail Cap(c_a), veh/h	863	0	0	623	0	723	866	0	1032	756	0	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	0.0	22.2	0.0	21.4	4.6	0.0	4.4	5.4	0.0	4.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	2.2	0.2	0.0	0.5	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	0.0	0.0	0.5	0.0	1.8	0.3	0.0	1.0	0.3	0.0	0.4
Lane Grp Delay (d), s/veh	20.9	0.0	0.0	22.5	0.0	23.6	4.8	0.0	4.9	5.6	0.0	4.3
Lane Grp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		91			188			299			172	
Approach Delay, s/veh		20.9			23.4			4.9			4.7	
Approach LOS		C			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	14.4	14.4	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	4.4	6.6	5.3	6.6
Green Ext Time (p_c), s	1.4	1.3	2.4	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	115	270	5	0	197	76	2	0	1	65	0	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	190.0	193.7	197.6	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Cap, veh/h	420	690	12	149	482	187	472	25	186	664	0	642
Arrive On Green	0.38	0.38	0.38	0.00	0.38	0.38	0.41	0.00	0.41	0.41	0.00	0.41
Sat Flow, veh/h	1074	1826	31	1077	1276	495	855	62	459	1406	0	1580
Grp Volume(v), veh/h	125	0	298	0	0	297	3	0	0	71	0	101
Grp Sat Flow(s),veh/h/ln	1074	0	1857	1077	0	1772	1376	0	0	1406	0	1580
Q Serve(g_s), s	4.7	0.0	5.7	0.0	0.0	6.0	0.0	0.0	0.0	1.6	0.0	2.0
Cycle Q Clear(g_c), s	10.8	0.0	5.7	0.0	0.0	6.0	2.0	0.0	0.0	3.6	0.0	2.0
Prop In Lane	1.00		0.02	1.00		0.28	0.67		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	420	0	702	149	0	669	684	0	0	664	0	642
V/C Ratio(X)	0.30	0.00	0.42	0.00	0.00	0.44	0.00	0.00	0.00	0.11	0.00	0.16
Avail Cap(c_a), veh/h	906	0	1540	636	0	1470	684	0	0	664	0	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	11.1	0.0	0.0	11.2	8.5	0.0	0.0	10.2	0.0	9.1
Incr Delay (d2), s/veh	0.4	0.0	0.4	0.0	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	2.1	0.0	0.0	2.1	0.0	0.0	0.0	0.5	0.0	0.7
Lane Grp Delay (d), s/veh	15.6	0.0	11.5	0.0	0.0	11.7	8.5	0.0	0.0	10.5	0.0	9.6
Lane Grp LOS	B		B			B	A			B		A
Approach Vol, veh/h		423			297			3			172	
Approach Delay, s/veh		12.7			11.7			8.5			10.0	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	23.2	23.2	25.0	25.0
Change Period (Y+Rc), s	5.0	5.0	5.4	5.4
Max Green Setting (Gmax), s	40.0	40.0	19.6	19.6
Max Q Clear Time (g_c+I1), s	12.8	8.0	4.0	5.6
Green Ext Time (p_c), s	4.1	4.2	0.6	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	77	28	12	50	20	14	307	57	2	77	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	199.6	195.2	199.6	194.6	190.8	194.6	200.6	196.6	200.6	194.6	190.8	194.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	53	491	174	112	420	155	67	792	143	57	946	0
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	0.50	0.50	0.49	1.00	1.00	0.00
Sat Flow, veh/h	3	1374	486	150	1175	435	28	1585	286	8	1892	0
Grp Volume(v), veh/h	115	0	0	89	0	0	411	0	0	86	0	0
Grp Sat Flow(s),veh/h/ln	1863	0	0	1760	0	0	1899	0	0	1901	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.0	2.3	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.01		0.26	0.15		0.25	0.04		0.15	0.02		0.00
Lane Grp Cap(c), veh/h	717	0	0	688	0	0	1003	0	0	1003	0	0
V/C Ratio(X)	0.16	0.00	0.00	0.13	0.00	0.00	0.41	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	717	0	0	688	0	0	1003	0	0	1003	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.5	0.0	0.0	15.3	0.0	0.0	11.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.4	0.0	0.0	1.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	0.0	0.0	1.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	16.0	0.0	0.0	15.7	0.0	0.0	12.4	0.0	0.0	0.2	0.0	0.0
Lane Grp LOS	B			B			B			A		
Approach Vol, veh/h		115			89			411			86	
Approach Delay, s/veh		16.0			15.7			12.4			0.2	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	5.0	4.3	11.6	2.0
Green Ext Time (p_c), s	0.7	0.7	2.1	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	241	40	14	175	20	81	255	21	11	96	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	184.2	191.9	203.5
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	364	440	72	292	462	54	703	847	70	572	620	286
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1161	1560	256	1067	1638	190	1230	1697	141	1063	1243	574
Grp Volume(v), veh/h	58	0	305	15	0	212	88	0	300	12	0	152
Grp Sat Flow(s),veh/h/ln	1161	0	1816	1067	0	1828	1230	0	1838	1063	0	1817
Q Serve(g_s), s	2.1	0.0	7.1	0.6	0.0	4.6	2.1	0.0	4.8	0.3	0.0	2.3
Cycle Q Clear(g_c), s	6.7	0.0	7.1	7.8	0.0	4.6	4.3	0.0	4.8	5.2	0.0	2.3
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.08	1.00		0.32
Lane Grp Cap(c), veh/h	364	0	512	292	0	516	703	0	917	572	0	907
V/C Ratio(X)	0.16	0.00	0.60	0.05	0.00	0.41	0.13	0.00	0.33	0.02	0.00	0.17
Avail Cap(c_a), veh/h	851	0	1274	740	0	1283	703	0	917	572	0	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	0.0	15.3	18.6	0.0	14.4	7.9	0.0	7.4	8.9	0.0	6.8
Incr Delay (d2), s/veh	0.2	0.0	1.1	0.1	0.0	0.5	0.4	0.0	1.0	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	2.9	0.1	0.0	1.8	0.5	0.0	1.8	0.1	0.0	0.9
Lane Grp Delay (d), s/veh	17.3	0.0	16.4	18.7	0.0	14.9	8.3	0.0	8.4	9.0	0.0	7.2
Lane Grp LOS	B		B	B		B	A		A	A		A
Approach Vol, veh/h		363			227			388			164	
Approach Delay, s/veh		16.5			15.1			8.3			7.3	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	19.3	19.3	30.0	30.0
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	34.6	34.6	24.6	24.6
Max Q Clear Time (g_c+I1), s	9.1	9.8	6.8	7.2
Green Ext Time (p_c), s	3.3	3.3	2.8	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	231	21	11	153	1	30	7	31	1	7	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	199.6	186.3	193.7	197.6	186.3	186.3	197.6	186.3	178.8	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	671	866	79	570	981	6	562	104	441	533	376	188
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1225	1698	156	1100	1924	12	1395	310	1318	1357	1125	563
Grp Volume(v), veh/h	2	0	274	12	0	167	33	0	42	1	0	12
Grp Sat Flow(s),veh/h/ln	1225	0	1854	1100	0	1935	1395	0	1628	1357	0	1688
Q Serve(g_s), s	0.1	0.0	5.9	0.4	0.0	3.2	1.1	0.0	1.2	0.0	0.0	0.3
Cycle Q Clear(g_c), s	3.3	0.0	5.9	6.4	0.0	3.2	1.5	0.0	1.2	1.3	0.0	0.3
Prop In Lane	1.00		0.08	1.00		0.01	1.00		0.81	1.00		0.33
Lane Grp Cap(c), veh/h	671	0	945	570	0	987	562	0	544	533	0	564
V/C Ratio(X)	0.00	0.00	0.29	0.02	0.00	0.17	0.06	0.00	0.08	0.00	0.00	0.02
Avail Cap(c_a), veh/h	671	0	945	570	0	987	562	0	544	533	0	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	9.9	11.7	0.0	9.2	16.1	0.0	15.9	16.4	0.0	15.6
Incr Delay (d2), s/veh	0.0	0.0	0.8	0.1	0.0	0.4	0.2	0.0	0.3	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	2.5	0.1	0.0	1.4	0.4	0.0	0.5	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	10.1	0.0	10.6	11.8	0.0	9.6	16.3	0.0	16.2	16.4	0.0	15.7
Lane Grp LOS	B		B	B		A	B		B	B		B
Approach Vol, veh/h		276			179			75			13	
Approach Delay, s/veh		10.6			9.7			16.2			15.7	
Approach LOS		B			A			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		41.2			41.2			28.8			28.8	
Change Period (Y+Rc), s		5.5			5.5			5.4			5.4	
Max Green Setting (Gmax), s		35.7			35.7			23.4			23.4	
Max Q Clear Time (g_c+I1), s		7.9			8.4			3.5			3.3	
Green Ext Time (p_c), s		2.7			2.6			0.3			0.3	

Intersection Summary												
HCM 2010 Ctrl Delay			11.2									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	157	32	9	112	25	19	93	11	15	103	42
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	1.00	1.00	0.99
Adj Sat Flow veh/h/ln	195.7	184.2	191.9	184.4	191.8	195.6	178.0	186.9	190.7	189.1	190.0	200.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	440	397	81	377	407	90	777	764	91	852	705	290
Arrive On Green	0.27	0.27	0.21	0.27	0.27	0.21	0.56	0.56	0.50	0.56	0.56	0.50
Sat Flow, veh/h	1284	1480	303	1150	1516	336	1166	1369	163	1290	1264	519
Grp Volume(v), veh/h	57	0	206	10	0	149	21	0	113	16	0	158
Grp Sat Flow(s),veh/h/ln	1284	0	1783	1150	0	1852	1166	0	1532	1290	0	1783
Q Serve(g_s), s	1.5	0.0	3.9	0.3	0.0	2.6	0.4	0.0	1.4	0.2	0.0	1.8
Cycle Q Clear(g_c), s	4.1	0.0	3.9	4.2	0.0	2.6	2.2	0.0	1.4	1.7	0.0	1.8
Prop In Lane	1.00		0.17	1.00		0.18	1.00		0.11	1.00		0.29
Lane Grp Cap(c), veh/h	440	0	479	377	0	497	777	0	854	852	0	995
V/C Ratio(X)	0.13	0.00	0.43	0.03	0.00	0.30	0.03	0.00	0.13	0.02	0.00	0.16
Avail Cap(c_a), veh/h	1385	0	1790	1223	0	1860	777	0	854	852	0	995
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	12.4	13.9	0.0	11.9	4.9	0.0	4.3	4.7	0.0	4.5
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.0	0.0	0.3	0.1	0.0	0.3	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	1.4	0.1	0.0	1.0	0.1	0.0	0.4	0.1	0.0	0.6
Lane Grp Delay (d), s/veh	13.5	0.0	13.0	14.0	0.0	12.2	4.9	0.0	4.6	4.7	0.0	4.8
Lane Grp LOS	B		B	B		B	A		A	A		A
Approach Vol, veh/h		263			159			134			174	
Approach Delay, s/veh		13.1			12.3			4.7			4.8	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	14.3	14.3	26.0	26.0
Change Period (Y+Rc), s	5.7	5.7	5.7	5.7
Max Green Setting (Gmax), s	38.3	38.3	20.3	20.3
Max Q Clear Time (g_c+I1), s	6.1	6.2	4.2	3.8
Green Ext Time (p_c), s	1.7	1.7	1.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.4
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	84	39	0	74	23	20	114	4	16	89	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	197.6	178.8	178.8	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	257	196	90	127	204	64	864	1147	37	861	701	412
Arrive On Green	0.16	0.16	0.16	0.00	0.16	0.16	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1281	1254	579	1202	1306	408	1220	1794	58	1198	1097	645
Grp Volume(v), veh/h	58	0	133	0	0	105	22	0	128	17	0	154
Grp Sat Flow(s),veh/h/ln	1281	0	1833	1202	0	1715	1220	0	1852	1198	0	1742
Q Serve(g_s), s	2.4	0.0	3.7	0.0	0.0	3.1	0.4	0.0	1.5	0.3	0.0	2.0
Cycle Q Clear(g_c), s	5.5	0.0	3.7	0.0	0.0	3.1	2.4	0.0	1.5	1.8	0.0	2.0
Prop In Lane	1.00		0.32	1.00		0.24	1.00		0.03	1.00		0.37
Lane Grp Cap(c), veh/h	257	0	286	127	0	268	864	0	1184	861	0	1114
V/C Ratio(X)	0.23	0.00	0.46	0.00	0.00	0.39	0.03	0.00	0.11	0.02	0.00	0.14
Avail Cap(c_a), veh/h	559	0	718	411	0	672	864	0	1184	861	0	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	21.7	0.0	0.0	21.5	4.5	0.0	4.0	4.3	0.0	4.0
Incr Delay (d2), s/veh	0.4	0.0	1.2	0.0	0.0	0.9	0.1	0.0	0.2	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	1.6	0.0	0.0	1.3	0.1	0.0	0.5	0.1	0.0	0.6
Lane Grp Delay (d), s/veh	24.4	0.0	22.9	0.0	0.0	22.4	4.6	0.0	4.1	4.4	0.0	4.3
Lane Grp LOS	C		C			C	A		A	A		A
Approach Vol, veh/h		191			105			150			171	
Approach Delay, s/veh		23.4			22.4			4.2			4.3	
Approach LOS		C			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	14.6	14.6	42.0	42.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	22.2	22.2	36.2	36.2
Max Q Clear Time (g_c+I1), s	7.5	5.1	4.4	4.0
Green Ext Time (p_c), s	1.2	1.3	1.8	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	22	48	0	0	0	75	194	4	0	139	22
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		0.97
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	186.3	178.8				197.6	186.3	197.6	197.6	186.3	197.6
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	334	296	527				0	0	0	0	0	0
Arrive On Green	0.35	0.35	0.35				0.97	0.97	0.97	0.00	0.00	0.00
Sat Flow, veh/h	961	854	1518				0	1822	35		-90635	-14406
Grp Volume(v), veh/h	51	0	52				0	0	215		0	175
Grp Sat Flow(s),veh/h/ln	1815	0	1518				0	0	1857		0	-105040
Q Serve(g_s), s	1.3	0.0	1.6				0.0	0.0	70.0		0.0	0.1
Cycle Q Clear(g_c), s	1.3	0.0	1.6				0.0	0.0	70.0		0.0	0.1
Prop In Lane	0.53		1.00				0.00		0.02			0.14
Lane Grp Cap(c), veh/h	630	0	527				0	0	0		0	-150
V/C Ratio(X)	0.08	0.00	0.10				0.00	0.00	0.00		0.00	-1.17
Avail Cap(c_a), veh/h	630	0	527				0	0	0		0	-31062
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	2.00		1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00		0.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	15.4				0.0	0.0	0.0		0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.4				0.0	0.0	0.0		0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	1.7				0.0	0.0	0.0		0.0	0.0
Lane Grp Delay (d), s/veh	15.6	0.0	15.8				0.0	0.0	0.0		0.0	0.0
Lane Grp LOS	B		B									
Approach Vol, veh/h		103						215			175	
Approach Delay, s/veh		15.7						0.0			0.0	
Approach LOS		B						A			A	

Timer												
Assigned Phs		4					5	2			6	
Phs Duration (G+Y+Rc), s		30.1					39.9	39.9			0.0	
Change Period (Y+Rc), s		5.8					5.8	5.8			5.8	
Max Green Setting (Gmax), s		24.3					7.6	34.1			20.7	
Max Q Clear Time (g_c+I1), s		3.6					0.0	72.0			0.0	
Green Ext Time (p_c), s		0.3					0.0	0.0			0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			3.3									
HCM 2010 LOS			A									

Notes

MID-DAY PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	177	298	79	27	314	32	57	41	21	34	61	177
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.98		0.97	0.97		0.97
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	178.8	186.3	197.6	178.8	186.3	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	389	615	163	361	721	74	396	434	222	550	155	451
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	959	1417	376	930	1661	170	1097	1150	588	1240	411	1196
Grp Volume(v), veh/h	192	0	410	29	0	376	62	0	68	37	0	258
Grp Sat Flow(s),veh/h/ln	959	0	1793	930	0	1831	1097	0	1737	1240	0	1607
Q Serve(g_s), s	11.3	0.0	10.7	1.5	0.0	9.3	2.8	0.0	1.6	1.3	0.0	7.6
Cycle Q Clear(g_c), s	20.6	0.0	10.7	12.2	0.0	9.3	10.4	0.0	1.6	2.9	0.0	7.6
Prop In Lane	1.00		0.21	1.00		0.09	1.00		0.34	1.00		0.74
Lane Grp Cap(c), veh/h	389	0	778	361	0	795	396	0	655	550	0	606
V/C Ratio(X)	0.49	0.00	0.53	0.08	0.00	0.47	0.16	0.00	0.10	0.07	0.00	0.43
Avail Cap(c_a), veh/h	486	0	958	454	0	979	396	0	655	550	0	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	13.2	17.7	0.0	12.8	18.6	0.0	12.8	13.8	0.0	14.7
Incr Delay (d2), s/veh	1.0	0.0	0.6	0.1	0.0	0.4	0.8	0.0	0.3	0.2	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.6	0.0	4.1	0.3	0.0	3.5	0.8	0.0	0.7	0.4	0.0	2.9
Lane Grp Delay (d), s/veh	21.1	0.0	13.8	17.8	0.0	13.3	19.4	0.0	13.2	14.0	0.0	16.9
Lane Grp LOS	C		B	B		B	B		B	B		B
Approach Vol, veh/h		602			405			130			295	
Approach Delay, s/veh		16.1			13.6			16.1			16.5	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	33.6	33.6	30.0	30.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	34.0	24.0	24.0
Max Q Clear Time (g_c+I1), s	22.6	14.2	12.4	9.6
Green Ext Time (p_c), s	4.2	5.5	0.3	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	358	52	88	395	0	36	1	98	0	0	1
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	180.5	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	75	575	84	296	633	0	712	6	629	0	0	570
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.00	0.40	0.40	0.40	0.00	0.00	0.40
Sat Flow, veh/h	2	1537	224	921	1693	0	1410	15	1571	0	0	1425
Grp Volume(v), veh/h	448	0	0	96	429	0	39	0	108	0	0	1
Grp Sat Flow(s),veh/h/ln	1763	0	0	921	1693	0	1410	0	1586	0	0	1425
Q Serve(g_s), s	0.0	0.0	0.0	4.8	10.4	0.0	0.8	0.0	2.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.4	0.0	0.0	15.1	10.4	0.0	0.9	0.0	2.1	0.0	0.0	0.0
Prop In Lane	0.00		0.13	1.00		0.00	1.00		0.99	0.00		1.00
Lane Grp Cap(c), veh/h	733	0	0	296	633	0	712	0	635	0	0	570
V/C Ratio(X)	0.61	0.00	0.00	0.32	0.68	0.00	0.05	0.00	0.17	0.00	0.00	0.00
Avail Cap(c_a), veh/h	780	0	0	320	678	0	712	0	635	0	0	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	0.0	0.0	19.1	12.8	0.0	9.0	0.0	9.4	0.0	0.0	8.8
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.6	2.5	0.0	0.1	0.0	0.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.9	0.0	0.0	1.0	3.9	0.0	0.3	0.0	0.8	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	14.1	0.0	0.0	19.8	15.3	0.0	9.2	0.0	10.0	0.0	0.0	8.8
Lane Grp LOS	B			B	B		A		A			A
Approach Vol, veh/h		448			525			147			1	
Approach Delay, s/veh		14.1			16.1			9.8			8.8	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	23.7	23.7	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	12.4	17.1	4.1	2.0
Green Ext Time (p_c), s	2.5	1.1	0.6	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
7: McCLELLAN AVE & W Fair Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	105	62	126	113	12	43	165	146	18	156	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	520	286	168	475	439	46	515	201	179	213	566	43
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1194	733	431	1194	1126	119	1199	516	459	1037	1452	111
Grp Volume(v), veh/h	16	0	181	137	0	136	47	0	338	20	0	183
Grp Sat Flow(s),veh/h/ln	1194	0	1163	1194	0	1245	1199	0	975	1037	0	1563
Q Serve(g_s), s	0.5	0.0	5.6	4.7	0.0	3.7	1.4	0.0	16.2	0.9	0.0	4.0
Cycle Q Clear(g_c), s	4.2	0.0	5.6	10.3	0.0	3.7	5.5	0.0	16.2	17.1	0.0	4.0
Prop In Lane	1.00		0.37	1.00		0.10	1.00		0.47	1.00		0.07
Lane Grp Cap(c), veh/h	520	0	454	475	0	486	515	0	380	213	0	610
V/C Ratio(X)	0.03	0.00	0.40	0.29	0.00	0.28	0.09	0.00	0.89	0.09	0.00	0.30
Avail Cap(c_a), veh/h	520	0	454	475	0	486	515	0	380	213	0	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.9	0.0	11.0	14.7	0.0	10.4	12.4	0.0	14.2	22.2	0.0	10.5
Incr Delay (d2), s/veh	0.1	0.0	2.6	1.5	0.0	1.4	0.4	0.0	25.2	0.9	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	1.7	1.5	0.0	1.2	0.4	0.0	5.8	0.3	0.0	1.4
Lane Grp Delay (d), s/veh	12.0	0.0	13.6	16.3	0.0	11.9	12.8	0.0	39.4	23.1	0.0	11.8
Lane Grp LOS	B		B	B		B	B		D	C		B
Approach Vol, veh/h		197			273			385			203	
Approach Delay, s/veh		13.5			14.1			36.2			12.9	
Approach LOS		B			B			D			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	7.6	12.3	18.2	19.1
Green Ext Time (p_c), s	1.6	1.2	0.4	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	234	55	36	183	28	64	94	38	58	103	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.85	1.00	1.00	0.79
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	184.4	184.4	188.1	188.1	185.5	191.9	183.5	173.2	194.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	408	521	123	335	559	84	676	533	214	609	633	40
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	0.17	0.17	0.16	0.50	0.50	0.49
Sat Flow, veh/h	1157	1460	345	1050	1566	236	1269	1067	429	1212	1265	79
Grp Volume(v), veh/h	12	0	314	39	0	229	70	0	143	63	0	119
Grp Sat Flow(s),veh/h/ln	1157	0	1805	1050	0	1802	1269	0	1496	1212	0	1345
Q Serve(g_s), s	0.5	0.0	9.5	2.1	0.0	6.6	3.3	0.0	5.8	2.2	0.0	3.4
Cycle Q Clear(g_c), s	7.1	0.0	9.5	11.6	0.0	6.6	6.8	0.0	5.8	8.0	0.0	3.4
Prop In Lane	1.00		0.19	1.00		0.13	1.00		0.29	1.00		0.06
Lane Grp Cap(c), veh/h	408	0	645	335	0	644	676	0	748	609	0	672
V/C Ratio(X)	0.03	0.00	0.49	0.12	0.00	0.36	0.10	0.00	0.19	0.10	0.00	0.18
Avail Cap(c_a), veh/h	408	0	645	335	0	644	676	0	748	609	0	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	17.6	22.0	0.0	16.6	18.9	0.0	17.1	12.5	0.0	9.6
Incr Delay (d2), s/veh	0.1	0.0	2.6	0.7	0.0	1.5	0.3	0.0	0.6	0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	4.5	0.6	0.0	3.0	1.2	0.0	2.3	0.7	0.0	1.1
Lane Grp Delay (d), s/veh	19.3	0.0	20.2	22.7	0.0	18.2	19.2	0.0	17.6	12.9	0.0	10.2
Lane Grp LOS	B		C	C		B	B		B	B		B
Approach Vol, veh/h		326			268			213			182	
Approach Delay, s/veh		20.2			18.8			18.1			11.1	
Approach LOS		C			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	11.5	13.6	8.8	10.0
Green Ext Time (p_c), s	2.1	1.9	1.6	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	118	158	14	81	12	177	134	32	14	124	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.68	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	168.1	186.3	190.0	158.3	186.3	197.6	186.3	181.8	197.6	186.3	188.9	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	485	202	272	320	452	67	563	369	88	532	441	180
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1156	710	954	911	1585	234	1180	955	229	1190	1141	465
Grp Volume(v), veh/h	53	0	300	15	0	101	192	0	181	15	0	190
Grp Sat Flow(s),veh/h/ln	1156	0	1664	911	0	1819	1180	0	1184	1190	0	1606
Q Serve(g_s), s	1.3	0.0	5.6	0.5	0.0	1.5	4.8	0.0	3.9	0.3	0.0	2.9
Cycle Q Clear(g_c), s	2.8	0.0	5.6	6.1	0.0	1.5	7.7	0.0	3.9	4.2	0.0	2.9
Prop In Lane	1.00		0.57	1.00		0.13	1.00		0.19	1.00		0.29
Lane Grp Cap(c), veh/h	485	0	474	320	0	519	563	0	457	532	0	620
V/C Ratio(X)	0.11	0.00	0.63	0.05	0.00	0.19	0.34	0.00	0.40	0.03	0.00	0.31
Avail Cap(c_a), veh/h	948	0	1141	685	0	1247	1250	0	1147	1225	0	1555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	11.0	13.7	0.0	9.6	10.2	0.0	7.8	9.4	0.0	7.5
Incr Delay (d2), s/veh	0.1	0.0	1.4	0.1	0.0	0.2	0.4	0.0	0.6	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	1.9	0.1	0.0	0.5	1.2	0.0	0.9	0.1	0.0	0.9
Lane Grp Delay (d), s/veh	10.7	0.0	12.4	13.7	0.0	9.7	10.6	0.0	8.4	9.4	0.0	7.8
Lane Grp LOS	B		B	B		A	B		A	A		A
Approach Vol, veh/h		353			116			373			205	
Approach Delay, s/veh		12.1			10.2			9.5			7.9	
Approach LOS		B			B			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		15.9			15.9			19.4			19.4	
Change Period (Y+Rc), s		5.8			5.8			5.8			5.8	
Max Green Setting (Gmax), s		24.2			24.2			34.2			34.2	
Max Q Clear Time (g_c+I1), s		7.6			8.1			9.7			6.2	
Green Ext Time (p_c), s		1.7			1.7			2.5			2.5	

Intersection Summary												
HCM 2010 Ctrl Delay			10.2									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	59	44	54	1	44	20	36	195	5	6	195	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.98	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	0.82	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	188.2	195.7	194.6	188.5	194.6	187.2	187.2	191.0	184.4	182.9	188.1
Lanes	1	1	1	0	1	0	1	1	0	1	1	0
Cap, veh/h	665	815	581	63	529	238	494	687	16	516	625	141
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.42	0.43	0.43	0.42	0.43	0.43	0.42
Sat Flow, veh/h	1331	1882	1340	4	1220	550	1115	1585	37	1144	1442	327
Grp Volume(v), veh/h	64	48	59	71	0	0	39	0	217	7	0	260
Grp Sat Flow(s),veh/h/ln	1331	1882	1340	1774	0	0	1115	0	1622	1144	0	1769
Q Serve(g_s), s	1.8	0.9	1.6	0.0	0.0	0.0	1.4	0.0	5.3	0.2	0.0	5.9
Cycle Q Clear(g_c), s	3.2	0.9	1.6	1.4	0.0	0.0	7.3	0.0	5.3	5.5	0.0	5.9
Prop In Lane	1.00		1.00	0.01		0.31	1.00		0.02	1.00		0.18
Lane Grp Cap(c), veh/h	665	815	581	830	0	0	494	0	703	516	0	766
V/C Ratio(X)	0.10	0.06	0.10	0.09	0.00	0.00	0.08	0.00	0.31	0.01	0.00	0.34
Avail Cap(c_a), veh/h	665	815	581	830	0	0	494	0	703	516	0	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.0	9.9	10.1	10.1	0.0	0.0	13.7	0.0	11.1	12.9	0.0	11.4
Incr Delay (d2), s/veh	0.3	0.1	0.4	0.2	0.0	0.0	0.3	0.0	1.1	0.0	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.4	0.5	0.6	0.0	0.0	0.4	0.0	2.1	0.1	0.0	2.5
Lane Grp Delay (d), s/veh	11.3	10.0	10.4	10.3	0.0	0.0	14.0	0.0	12.3	13.0	0.0	12.6
Lane Grp LOS	B	B	B	B			B		B	B		B
Approach Vol, veh/h		171			71			256			267	
Approach Delay, s/veh		10.6			10.3			12.5			12.6	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	5.2	3.4	9.3	7.9
Green Ext Time (p_c), s	0.9	0.9	2.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	126	96	6	100	9	46	188	8	7	214	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	185.9	192.8	188.1	184.4	188.1	188.1	188.1	191.9	185.3	180.8	189.0
Lanes	1	1	0	0	1	0	1	1	0	1	1	0
Cap, veh/h	404	243	185	94	402	36	709	743	33	727	872	138
Arrive On Green	0.25	0.25	0.23	0.25	0.25	0.23	0.57	0.57	0.55	0.57	0.57	0.55
Sat Flow, veh/h	1263	972	738	41	1607	142	1110	1296	57	1151	1521	242
Grp Volume(v), veh/h	50	0	241	126	0	0	50	0	213	8	0	270
Grp Sat Flow(s),veh/h/ln	1263	0	1710	1790	0	0	1110	0	1353	1151	0	1762
Q Serve(g_s), s	1.5	0.0	5.6	0.0	0.0	0.0	1.1	0.0	3.6	0.2	0.0	3.5
Cycle Q Clear(g_c), s	4.0	0.0	5.6	2.5	0.0	0.0	4.6	0.0	3.6	3.8	0.0	3.5
Prop In Lane	1.00		0.43	0.06		0.08	1.00		0.04	1.00		0.14
Lane Grp Cap(c), veh/h	404	0	428	532	0	0	709	0	776	727	0	1010
V/C Ratio(X)	0.12	0.00	0.56	0.24	0.00	0.00	0.07	0.00	0.27	0.01	0.00	0.27
Avail Cap(c_a), veh/h	812	0	980	1098	0	0	709	0	776	727	0	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	15.0	13.7	0.0	0.0	6.0	0.0	4.9	5.9	0.0	4.9
Incr Delay (d2), s/veh	0.1	0.0	1.2	0.2	0.0	0.0	0.2	0.0	0.9	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	2.2	1.1	0.0	0.0	0.3	0.0	1.1	0.0	0.0	1.3
Lane Grp Delay (d), s/veh	15.5	0.0	16.2	14.0	0.0	0.0	6.2	0.0	5.8	5.9	0.0	5.6
Lane Grp LOS	B		B	B			A		A	A		A
Approach Vol, veh/h		291			126			263			278	
Approach Delay, s/veh		16.1			14.0			5.9			5.6	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	15.4	15.4	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	7.6	4.5	6.6	5.8
Green Ext Time (p_c), s	1.6	1.7	2.1	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

Notes

HCM 2010 Signalized Intersection Summary
30: Front St & Hewitt Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	19	11	10	24	3	15	140	13	5	88	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	182.4	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	89	384	200	194	434	46	97	799	70	67	832	75
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	93	1120	582	375	1266	133	84	1646	144	28	1712	155
Grp Volume(v), veh/h	37	0	0	40	0	0	182	0	0	110	0	0
Grp Sat Flow(s),veh/h/ln	1795	0	0	1774	0	0	1874	0	0	1895	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.0	0.0	0.0	3.8	0.0	0.0	2.2	0.0	0.0
Prop In Lane	0.11		0.32	0.27		0.07	0.09		0.08	0.05		0.08
Lane Grp Cap(c), veh/h	672	0	0	674	0	0	966	0	0	974	0	0
V/C Ratio(X)	0.06	0.00	0.00	0.06	0.00	0.00	0.19	0.00	0.00	0.11	0.00	0.00
Avail Cap(c_a), veh/h	672	0	0	674	0	0	966	0	0	974	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	15.4	0.0	0.0	10.2	0.0	0.0	9.8	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.4	0.0	0.0	1.6	0.0	0.0	0.9	0.0	0.0
Lane Grp Delay (d), s/veh	15.6	0.0	0.0	15.6	0.0	0.0	10.7	0.0	0.0	10.1	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		37			40			182			110	
Approach Delay, s/veh		15.6			15.6			10.7			10.1	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.0	3.0	5.8	4.2
Green Ext Time (p_c), s	0.3	0.3	1.7	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
31: N 3rd St/N 3 rd St & Hewitt Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	17	10	11	17	18	15	279	17	13	291	11
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	212	287	153	167	249	235	71	853	49	67	878	32
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	422	836	446	300	726	684	35	1756	101	29	1808	67
Grp Volume(v), veh/h	42	0	0	50	0	0	337	0	0	342	0	0
Grp Sat Flow(s),veh/h/ln	1704	0	0	1710	0	0	1892	0	0	1904	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	1.3	0.0	0.0	7.7	0.0	0.0	7.8	0.0	0.0
Prop In Lane	0.31		0.26	0.24		0.40	0.05		0.05	0.04		0.04
Lane Grp Cap(c), veh/h	652	0	0	650	0	0	973	0	0	978	0	0
V/C Ratio(X)	0.06	0.00	0.00	0.08	0.00	0.00	0.35	0.00	0.00	0.35	0.00	0.00
Avail Cap(c_a), veh/h	652	0	0	650	0	0	973	0	0	978	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.5	0.0	0.0	15.5	0.0	0.0	11.2	0.0	0.0	11.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	0.0	0.6	0.0	0.0	3.3	0.0	0.0	3.3	0.0	0.0
Lane Grp Delay (d), s/veh	15.7	0.0	0.0	15.8	0.0	0.0	12.2	0.0	0.0	12.2	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		42			50			337			342	
Approach Delay, s/veh		15.7			15.8			12.2			12.2	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.1	3.3	9.7	9.8
Green Ext Time (p_c), s	0.4	0.4	4.2	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	31	15	18	36	302	0	0	256	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	0.99		1.00	1.00		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	0.0	186.3	0.0	186.3	186.3	197.6	178.8	186.3	0.0	0.0	186.3	197.6
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	333	0	420	131	164	754	1221	0	0	1004	181
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.66	0.66	0.00	0.00	1.00	1.00
Sat Flow, veh/h	0	1863	0	1774	736	920	993	1863	0	0	1532	276
Grp Volume(v), veh/h	0	0	0	34	0	36	39	328	0	0	0	328
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	0	1656	993	1863	0	0	0	1807
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	1.3	1.0	5.2	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.1	0.0	1.3	1.0	5.2	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	1.00		0.56	1.00		0.00	0.00		0.15
Lane Grp Cap(c), veh/h	0	333	0	420	0	296	754	1221	0	0	0	1185
V/C Ratio(X)	0.00	0.00	0.00	0.08	0.00	0.12	0.05	0.27	0.00	0.00	0.00	0.28
Avail Cap(c_a), veh/h	0	333	0	420	0	296	754	1221	0	0	0	1185
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	24.1	0.0	24.1	4.3	5.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.8	0.1	0.5	0.0	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.5	0.0	0.6	0.2	1.9	0.0	0.0	0.0	0.2
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	24.5	0.0	25.0	4.4	5.6	0.0	0.0	0.0	0.6
Lane Grp LOS				C		C	A	A				A
Approach Vol, veh/h		0			70			367			328	
Approach Delay, s/veh		0.0			24.7			5.5			0.6	
Approach LOS					C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	18.3	18.3	51.7	51.7
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	12.5	12.5	45.9	45.9
Max Q Clear Time (g_c+I1), s	0.0	3.3	7.2	2.0
Green Ext Time (p_c), s	0.0	0.1	4.5	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	5.1
HCM 2010 LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	27	89	47	36	106	165	121	538	34	39	491	37
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	184.7	191.0	190.0	171.6	193.8	193.7	146.2	142.9	191.8	162.2	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	110	212	111	253	113	176	157	1482	616	69	1492	721
Arrive On Green	0.20	0.19	0.19	0.20	0.19	0.19	0.09	0.51	0.51	0.04	0.46	0.46
Sat Flow, veh/h	1086	1137	598	1259	606	943	1845	2923	1214	1827	3243	1568
Grp Volume(v), veh/h	29	0	148	39	0	294	132	585	37	42	534	40
Grp Sat Flow(s),veh/h/ln	1086	0	1734	1259	0	1549	1845	1462	1214	1827	1622	1568
Q Serve(g_s), s	1.5	0.0	6.1	2.2	0.0	14.9	5.6	9.9	1.2	1.8	8.5	1.1
Cycle Q Clear(g_c), s	16.4	0.0	6.1	8.3	0.0	14.9	5.6	9.9	1.2	1.8	8.5	1.1
Prop In Lane	1.00		0.34	1.00		0.61	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	0	323	253	0	289	157	1482	616	69	1492	721
V/C Ratio(X)	0.26	0.00	0.46	0.15	0.00	1.02	0.84	0.39	0.06	0.61	0.36	0.06
Avail Cap(c_a), veh/h	110	0	323	253	0	289	157	1482	616	155	1492	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	29.0	31.3	0.0	32.6	36.1	12.2	10.0	37.9	14.0	12.0
Incr Delay (d2), s/veh	1.3	0.0	1.0	0.3	0.0	57.9	31.7	0.8	0.2	8.3	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	2.7	0.7	0.0	10.4	3.8	3.1	0.3	0.9	3.0	0.4
Lane Grp Delay (d), s/veh	40.7	0.0	30.0	31.6	0.0	90.5	67.8	12.9	10.2	46.2	14.6	12.1
Lane Grp LOS	D		C	C		F	E	B	B	D	B	B
Approach Vol, veh/h		177			333			754			616	
Approach Delay, s/veh		31.7			83.6			22.4			16.6	
Approach LOS		C			F			C			B	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		24.0			24.0		13.0	46.8		9.2	43.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		14.9			14.9		6.8	36.8		6.8	36.8	
Max Q Clear Time (g_c+I1), s		18.4			16.9		7.6	11.9		3.8	10.5	
Green Ext Time (p_c), s		0.0			0.0		0.0	4.7		0.0	4.7	

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
50: Genesee St & S Front St

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	68	30	57	54	32	15	19	615	40	10	654	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	193.7	186.3	197.6	193.7	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	466	174	327	424	363	166	402	1914	123	431	1861	167
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1348	580	1090	1295	1211	554	721	3463	223	765	3369	303
Grp Volume(v), veh/h	74	0	95	59	0	51	21	359	352	11	393	382
Grp Sat Flow(s),veh/h/ln	1348	0	1670	1295	0	1765	721	1863	1823	765	1863	1809
Q Serve(g_s), s	3.3	0.0	3.4	2.8	0.0	1.7	1.4	8.5	8.6	0.6	9.6	9.6
Cycle Q Clear(g_c), s	5.0	0.0	3.4	6.2	0.0	1.7	10.9	8.5	8.6	9.2	9.6	9.6
Prop In Lane	1.00		0.65	1.00		0.31	1.00		0.12	1.00		0.17
Lane Grp Cap(c), veh/h	466	0	501	424	0	530	402	1029	1007	431	1029	1000
V/C Ratio(X)	0.16	0.00	0.19	0.14	0.00	0.10	0.05	0.35	0.35	0.03	0.38	0.38
Avail Cap(c_a), veh/h	466	0	501	424	0	530	402	1029	1007	431	1029	1000
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	20.8	23.1	0.0	20.2	13.3	9.9	9.9	12.5	10.2	10.2
Incr Delay (d2), s/veh	0.7	0.0	0.8	0.7	0.0	0.4	0.2	0.9	1.0	0.1	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	1.5	0.9	0.0	0.7	0.2	3.6	3.5	0.1	4.0	3.9
Lane Grp Delay (d), s/veh	22.7	0.0	21.6	23.8	0.0	20.5	13.5	10.9	10.9	12.6	11.2	11.3
Lane Grp LOS	C		C	C		C	B	B	B	B	B	B
Approach Vol, veh/h		169			110			732			786	
Approach Delay, s/veh		22.1			22.3			10.9			11.3	
Approach LOS		C			C			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	50.0	50.0
Change Period (Y+Rc), s	6.0	6.0	5.8	5.8
Max Green Setting (Gmax), s	24.0	24.0	44.2	44.2
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	0	0	694	528	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	16
Total Lost time (s)				5.5	7.7	
Lane Util. Factor				0.95	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3539	3433	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3539	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	754	574	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	754	574	0
Turn Type				NA	NA	
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				35.5	31.3	
Effective Green, g (s)				35.5	31.3	
Actuated g/C Ratio				0.44	0.39	
Clearance Time (s)				5.5	7.7	
Lane Grp Cap (vph)				1570	1343	
v/s Ratio Prot				c0.21	c0.17	
v/s Ratio Perm						
v/c Ratio				0.48	0.43	
Uniform Delay, d1				15.7	17.8	
Progression Factor				1.00	0.31	
Incremental Delay, d2				1.1	0.9	
Delay (s)				16.8	6.4	
Level of Service				B	A	
Approach Delay (s)	0.0			16.8	6.4	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
270: Washington & US 41

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Volume (vph)	0	634	0	0	0	0	0	0	0	528
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	12	16	16	16	16	13	16	16	12
Total Lost time (s)		5.5								7.7
Lane Util. Factor		0.95								0.88
Frt		1.00								0.85
Flt Protected		1.00								1.00
Satd. Flow (prot)		3539								2787
Flt Permitted		1.00								1.00
Satd. Flow (perm)		3539								2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	689	0	0	0	0	0	0	0	574
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	689	0	0	0	0	0	0	0	574
Turn Type		NA								custom
Protected Phases		1								
Permitted Phases										2
Actuated Green, G (s)		35.5								31.3
Effective Green, g (s)		35.5								31.3
Actuated g/C Ratio		0.44								0.39
Clearance Time (s)		5.5								7.7
Lane Grp Cap (vph)		1570								1090
v/s Ratio Prot		c0.19								
v/s Ratio Perm										c0.21
v/c Ratio		0.44								0.53
Uniform Delay, d1		15.4								18.7
Progression Factor		1.00								1.48
Incremental Delay, d2		0.9								1.8
Delay (s)		16.3								29.4
Level of Service		B								C
Approach Delay (s)		16.3			0.0		0.0		29.4	
Approach LOS		B			A		A		C	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 Signalized Intersection Summary
63: Washington St & McClellan Ave

4/28/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	137	485	69	111	470	79	87	278	123	105	231	148
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	184.4	178.0	195.6
Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Cap, veh/h	383	1439	204	381	1403	235	382	999	433	374	835	516
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.41	0.38	0.38	0.41	0.38
Sat Flow, veh/h	817	3193	453	814	3112	521	969	2466	1069	939	2060	1273
Grp Volume(v), veh/h	149	307	295	121	305	292	95	226	210	114	216	196
Grp Sat Flow(s),veh/h/ln	817	1863	1783	814	1863	1770	969	1863	1672	939	1780	1553
Q Serve(g_s), s	10.3	7.6	7.6	8.1	7.5	7.6	5.4	5.8	6.1	6.9	5.7	6.2
Cycle Q Clear(g_c), s	17.9	7.6	7.6	15.7	7.5	7.6	11.6	5.8	6.1	13.0	5.7	6.2
Prop In Lane	1.00		0.25	1.00		0.29	1.00		0.64	1.00		0.82
Lane Grp Cap(c), veh/h	383	840	804	381	840	798	382	755	677	374	721	629
V/C Ratio(X)	0.39	0.37	0.37	0.32	0.36	0.37	0.25	0.30	0.31	0.30	0.30	0.31
Avail Cap(c_a), veh/h	383	840	804	381	840	798	382	755	677	374	721	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	12.7	12.7	17.8	12.6	12.7	19.7	14.1	14.7	20.2	14.1	14.8
Incr Delay (d2), s/veh	3.0	1.2	1.3	2.2	1.2	1.3	1.6	1.0	1.2	2.1	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.2	3.3	3.2	1.7	3.2	3.1	1.4	2.5	2.4	1.7	2.4	2.3
Lane Grp Delay (d), s/veh	21.5	13.9	14.0	20.0	13.9	14.0	21.3	15.1	15.8	22.2	15.2	16.1
Lane Grp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		751			718			531			526	
Approach Delay, s/veh		15.4			14.9			16.5			17.1	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		37.7			37.7			32.4			32.4	
Change Period (Y+Rc), s		6.1			6.1			6.0			6.0	
Max Green Setting (Gmax), s		31.6			31.5			26.4			26.4	
Max Q Clear Time (g_c+I1), s		19.9			17.7			13.6			15.0	
Green Ext Time (p_c), s		6.1			6.8			3.5			3.4	

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Notes

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE & US 41

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	510	170	0	271	0	0	231	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			2%			0%			6%	
Total Lost time (s)					6.4	6.4		3.2			10.0	10.0
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3397	1555		1781			1771	1431
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3397	1555		1781			1771	1431
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	554	185	0	295	0	0	251	133
RTOR Reduction (vph)	0	0	0	0	0	93	0	0	0	0	0	93
Lane Group Flow (vph)	0	0	0	0	554	92	0	295	0	0	251	40
Heavy Vehicles (%)	2%	6%	11%	2%	5%	2%	2%	2%	4%	2%	2%	9%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1		2			2	2
Actuated Green, G (s)					39.6	39.6		28.0			24.0	24.0
Effective Green, g (s)					39.6	39.6		30.8			24.0	24.0
Actuated g/C Ratio					0.50	0.50		0.39			0.30	0.30
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1681	769		685			531	429
v/s Ratio Prot					c0.16			c0.17			0.14	
v/s Ratio Perm						0.06						0.03
v/c Ratio					0.33	0.12		0.43			0.47	0.09
Uniform Delay, d1					12.2	10.8		18.1			22.8	20.2
Progression Factor					1.00	1.00		0.07			1.00	1.00
Incremental Delay, d2					0.5	0.3		1.8			3.0	0.4
Delay (s)					12.7	11.2		3.1			25.8	20.6
Level of Service					B	B		A			C	C
Approach Delay (s)		0.0			12.3			3.1			24.0	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
110: McCLELLAN AVE/McCLELLEN AVE & US 41

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	525	190	0	0	0	0	271	141	0	231	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	20	20	20	20	20	20
Total Lost time (s)		6.4	6.4					10.0	8.5		6.0	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2006					2359	2006		2359	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2006					2359	2006		2359	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	571	207	0	0	0	0	295	153	0	251	0
RTOR Reduction (vph)	0	0	105	0	0	0	0	0	104	0	0	0
Lane Group Flow (vph)	0	571	102	0	0	0	0	295	49	0	251	0
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		39.6	39.6					24.0	24.0		28.0	
Effective Green, g (s)		39.6	39.6					24.0	25.5		28.0	
Actuated g/C Ratio		0.50	0.50					0.30	0.32		0.35	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1751	992					707	639		825	
v/s Ratio Prot		c0.16						c0.13			0.11	
v/s Ratio Perm			0.05						0.02			
v/c Ratio		0.33	0.10					0.42	0.08		0.30	
Uniform Delay, d1		12.2	10.8					22.4	19.0		18.9	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		0.5	0.2					1.8	0.2		0.9	
Delay (s)		12.7	11.0					24.2	19.3		0.9	
Level of Service		B	B					C	B		A	
Approach Delay (s)		12.2			0.0			22.5			0.9	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	90	137	20	68	2	131	93	12	5	120	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.79	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	177.9	170.1	196.6	199.6	192.5	199.6	195.6	184.2	195.6
Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Cap, veh/h	539	186	283	338	519	14	502	339	40	70	800	120
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.33	0.52	0.52	0.50	0.52	0.52	0.50
Sat Flow, veh/h	1328	531	808	1076	1483	40	792	657	78	15	1548	231
Grp Volume(v), veh/h	21	0	247	22	0	76	256	0	0	155	0	0
Grp Sat Flow(s),veh/h/ln	1328	0	1339	1076	0	1523	1526	0	0	1794	0	0
Q Serve(g_s), s	0.7	0.0	8.8	1.0	0.0	2.0	2.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	8.8	9.8	0.0	2.0	5.1	0.0	0.0	2.7	0.0	0.0
Prop In Lane	1.00		0.60	1.00		0.03	0.55		0.05	0.03		0.13
Lane Grp Cap(c), veh/h	539	0	469	338	0	533	882	0	0	989	0	0
V/C Ratio(X)	0.04	0.00	0.53	0.07	0.00	0.14	0.29	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	539	0	469	338	0	533	882	0	0	989	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.3	0.0	15.5	19.5	0.0	13.4	8.2	0.0	0.0	7.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	4.2	0.4	0.0	0.6	0.8	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	3.2	0.3	0.0	0.8	2.0	0.0	0.0	1.1	0.0	0.0
Lane Grp Delay (d), s/veh	14.4	0.0	19.7	19.8	0.0	13.9	9.0	0.0	0.0	8.0	0.0	0.0
Lane Grp LOS	B		B	B		B	A			A		
Approach Vol, veh/h		268			98			256			155	
Approach Delay, s/veh		19.3			15.2			9.0			8.0	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	35.0	35.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	20.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	10.8	11.8	7.1	4.7
Green Ext Time (p_c), s	1.1	1.0	1.7	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	28	34	69	18	92	21	147	67	102	169	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.96		0.95	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	178.8	178.8	197.6	178.8	178.8	197.6	178.8	178.8	197.6
Lanes	0	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	0	136	167	305	44	220	773	707	323	726	1081	6
Arrive On Green	0.00	0.18	0.18	0.18	0.18	0.18	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	0	767	947	1225	249	1245	1143	1162	530	1095	1777	10
Grp Volume(v), veh/h	0	0	67	75	0	120	23	0	233	111	0	185
Grp Sat Flow(s),veh/h/ln	0	0	1714	1225	0	1495	1143	0	1693	1095	0	1786
Q Serve(g_s), s	0.0	0.0	1.9	3.1	0.0	4.0	0.5	0.0	3.5	2.9	0.0	2.5
Cycle Q Clear(g_c), s	0.0	0.0	1.9	5.0	0.0	4.0	3.0	0.0	3.5	6.4	0.0	2.5
Prop In Lane	0.00		0.55	1.00		0.83	1.00		0.31	1.00		0.01
Lane Grp Cap(c), veh/h	0	0	303	305	0	264	773	0	1030	726	0	1087
V/C Ratio(X)	0.00	0.00	0.22	0.25	0.00	0.45	0.03	0.00	0.23	0.15	0.00	0.17
Avail Cap(c_a), veh/h	0	0	736	614	0	642	773	0	1030	726	0	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.7	21.8	0.0	20.6	5.4	0.0	5.0	6.4	0.0	4.8
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.4	0.0	1.2	0.1	0.0	0.5	0.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.7	0.9	0.0	1.4	0.1	0.0	1.1	0.6	0.0	0.8
Lane Grp Delay (d), s/veh	0.0	0.0	20.1	22.3	0.0	21.8	5.5	0.0	5.5	6.9	0.0	5.1
Lane Grp LOS			C	C		C	A		A	A		A
Approach Vol, veh/h		67			195			256			296	
Approach Delay, s/veh		20.1			22.0			5.5			5.8	
Approach LOS		C			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	15.9	15.9	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.9	7.0	5.5	8.4
Green Ext Time (p_c), s	1.2	1.1	2.9	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	106	557	5	0	532	33	3	2	0	71	0	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	193.7	193.7	197.6	0.0	193.7	197.6	190.0	193.7	197.6	190.0	193.7	190.0
Lanes	1	1	0	0	2	0	0	1	0	0	1	0
Cap, veh/h	431	890	7	0	1675	104	394	240	0	258	39	352
Arrive On Green	0.46	0.46	0.46	0.00	0.46	0.46	0.35	0.35	0.00	0.35	0.00	0.35
Sat Flow, veh/h	835	1918	16	0	3609	224	832	687	0	485	110	1005
Grp Volume(v), veh/h	115	0	610	0	310	304	5	0	0	207	0	0
Grp Sat Flow(s),veh/h/ln	835	0	1934	0	1937	1896	1519	0	0	1600	0	0
Q Serve(g_s), s	5.7	0.0	13.8	0.0	5.7	5.7	0.0	0.0	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	11.4	0.0	13.8	0.0	5.7	5.7	0.1	0.0	0.0	5.1	0.0	0.0
Prop In Lane	1.00		0.01	0.00		0.12	0.60		0.00	0.37		0.63
Lane Grp Cap(c), veh/h	431	0	898	0	899	880	635	0	0	648	0	0
V/C Ratio(X)	0.27	0.00	0.68	0.00	0.34	0.35	0.01	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	640	0	1382	0	1384	1355	635	0	0	648	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	11.7	0.0	9.6	9.6	11.9	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.9	0.0	0.2	0.2	0.0	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	0.0	5.3	0.0	2.1	2.2	0.0	0.0	0.0	2.0	0.0	0.0
Lane Grp Delay (d), s/veh	13.6	0.0	12.7	0.0	9.8	9.8	11.9	0.0	0.0	14.7	0.0	0.0
Lane Grp LOS	B		B		A	A	B			B		
Approach Vol, veh/h		725			614			5			207	
Approach Delay, s/veh		12.8			9.8			11.9			14.7	
Approach LOS		B			A			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	31.0	31.0	25.0	25.0
Change Period (Y+Rc), s	5.0	5.0	5.4	5.4
Max Green Setting (Gmax), s	40.0	40.0	19.6	19.6
Max Q Clear Time (g_c+I1), s	15.8	7.7	2.1	7.1
Green Ext Time (p_c), s	8.9	9.7	1.1	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
74: 7th St & MAGNETIC ST

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	75	28	18	90	18	20	175	19	12	134	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	199.6	195.2	199.6	194.6	190.8	194.6	200.6	196.6	200.6	194.6	190.8	194.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	0	487	178	113	493	93	104	809	85	91	863	28
Arrive On Green	0.00	0.36	0.34	0.36	0.36	0.34	0.50	0.50	0.49	0.17	0.17	0.16
Sat Flow, veh/h	0	1363	499	150	1382	260	95	1618	170	71	1727	57
Grp Volume(v), veh/h	0	0	112	138	0	0	233	0	0	164	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1862	1792	0	0	1883	0	0	1854	0	0
Q Serve(g_s), s	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	2.9	3.6	0.0	0.0	4.8	0.0	0.0	5.2	0.0	0.0
Prop In Lane	0.00		0.27	0.14		0.14	0.09		0.09	0.08		0.03
Lane Grp Cap(c), veh/h	0	0	665	699	0	0	998	0	0	982	0	0
V/C Ratio(X)	0.00	0.00	0.17	0.20	0.00	0.00	0.23	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	0	0	665	699	0	0	998	0	0	982	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	15.5	15.7	0.0	0.0	10.0	0.0	0.0	16.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	0.6	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	1.4	1.7	0.0	0.0	2.2	0.0	0.0	2.5	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	16.0	16.3	0.0	0.0	10.5	0.0	0.0	17.2	0.0	0.0
Lane Grp LOS			B	B			B			B		
Approach Vol, veh/h		112			138			233			164	
Approach Delay, s/veh		16.0			16.3			10.5			17.2	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	4.9	5.6	6.8	7.2
Green Ext Time (p_c), s	0.9	0.9	1.6	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
75: Washington St & 7th St

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	394	66	12	359	25	58	113	27	29	88	67
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	184.2	191.9	203.5
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	323	598	101	260	663	46	570	623	147	581	433	329
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	965	1555	262	894	1722	119	1211	1458	344	1216	1013	770
Grp Volume(v), veh/h	51	0	500	13	0	417	63	0	152	32	0	169
Grp Sat Flow(s),veh/h/ln	965	0	1816	894	0	1842	1211	0	1802	1216	0	1783
Q Serve(g_s), s	2.6	0.0	13.4	0.7	0.0	10.4	2.0	0.0	3.0	1.0	0.0	3.4
Cycle Q Clear(g_c), s	12.9	0.0	13.4	14.2	0.0	10.4	5.4	0.0	3.0	4.0	0.0	3.4
Prop In Lane	1.00		0.14	1.00		0.06	1.00		0.19	1.00		0.43
Lane Grp Cap(c), veh/h	323	0	699	260	0	709	570	0	770	581	0	762
V/C Ratio(X)	0.16	0.00	0.72	0.05	0.00	0.59	0.11	0.00	0.20	0.06	0.00	0.22
Avail Cap(c_a), veh/h	532	0	1092	454	0	1107	570	0	770	581	0	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	15.0	21.0	0.0	14.1	12.1	0.0	10.3	11.5	0.0	10.4
Incr Delay (d2), s/veh	0.2	0.0	1.4	0.1	0.0	0.8	0.4	0.0	0.6	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	5.4	0.2	0.0	4.1	0.6	0.0	1.2	0.3	0.0	1.5
Lane Grp Delay (d), s/veh	19.4	0.0	16.4	21.1	0.0	14.9	12.5	0.0	10.9	11.7	0.0	11.1
Lane Grp LOS	B		B	C		B	B		B	B		B
Approach Vol, veh/h		551			430			215			201	
Approach Delay, s/veh		16.7			15.0			11.4			11.2	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	27.5	27.5	30.0	30.0
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	34.6	34.6	24.6	24.6
Max Q Clear Time (g_c+I1), s	15.4	16.2	7.4	6.0
Green Ext Time (p_c), s	5.9	5.8	2.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
76: Washington St & 5th St

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	392	31	13	346	8	35	8	12	1	6	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	199.6	186.3	193.7	197.6	186.3	186.3	197.6	186.3	178.8	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	492	877	70	426	961	23	559	230	333	552	255	291
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1003	1720	137	927	1884	45	1389	689	995	1380	761	870
Grp Volume(v), veh/h	10	0	460	14	0	385	38	0	22	1	0	15
Grp Sat Flow(s),veh/h/ln	1003	0	1857	927	0	1929	1389	0	1684	1380	0	1632
Q Serve(g_s), s	0.4	0.0	11.3	0.7	0.0	8.6	1.3	0.0	0.6	0.0	0.0	0.4
Cycle Q Clear(g_c), s	9.0	0.0	11.3	12.0	0.0	8.6	1.8	0.0	0.6	0.7	0.0	0.4
Prop In Lane	1.00		0.07	1.00		0.02	1.00		0.59	1.00		0.53
Lane Grp Cap(c), veh/h	492	0	947	426	0	984	559	0	563	552	0	545
V/C Ratio(X)	0.02	0.00	0.49	0.03	0.00	0.39	0.07	0.00	0.04	0.00	0.00	0.03
Avail Cap(c_a), veh/h	492	0	947	426	0	984	559	0	563	552	0	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	11.2	15.1	0.0	10.5	16.2	0.0	15.7	15.9	0.0	15.7
Incr Delay (d2), s/veh	0.1	0.0	1.8	0.1	0.0	1.2	0.2	0.0	0.1	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	4.8	0.2	0.0	3.7	0.5	0.0	0.3	0.0	0.0	0.2
Lane Grp Delay (d), s/veh	13.3	0.0	13.0	15.2	0.0	11.7	16.5	0.0	15.8	15.9	0.0	15.7
Lane Grp LOS	B		B	B		B	B		B	B		B
Approach Vol, veh/h		470			399			60			16	
Approach Delay, s/veh		13.0			11.8			16.2			15.8	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		41.2			41.2			28.8			28.8	
Change Period (Y+Rc), s		5.5			5.5			5.4			5.4	
Max Green Setting (Gmax), s		35.7			35.7			23.4			23.4	
Max Q Clear Time (g_c+I1), s		13.3			14.0			3.8			2.7	
Green Ext Time (p_c), s		5.5			5.4			0.2			0.2	

Intersection Summary												
HCM 2010 Ctrl Delay			12.7									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	66	292	43	11	230	28	33	71	15	26	81	72
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	1.00	1.00	0.99
Adj Sat Flow veh/h/ln	195.7	184.3	191.9	184.4	191.8	195.6	178.0	186.9	190.7	189.1	191.7	200.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	436	563	83	351	603	72	655	611	127	750	450	399
Arrive On Green	0.36	0.36	0.31	0.36	0.36	0.31	0.49	0.49	0.44	0.49	0.49	0.44
Sat Flow, veh/h	1132	1562	232	991	1674	201	1154	1252	260	1309	923	818
Grp Volume(v), veh/h	72	0	364	12	0	280	36	0	93	28	0	166
Grp Sat Flow(s),veh/h/ln	1132	0	1793	991	0	1875	1154	0	1513	1309	0	1741
Q Serve(g_s), s	2.4	0.0	7.6	0.5	0.0	5.2	0.8	0.0	1.6	0.6	0.0	2.6
Cycle Q Clear(g_c), s	7.6	0.0	7.6	8.0	0.0	5.2	3.4	0.0	1.6	2.1	0.0	2.6
Prop In Lane	1.00		0.13	1.00		0.11	1.00		0.17	1.00		0.47
Lane Grp Cap(c), veh/h	436	0	646	351	0	676	655	0	738	750	0	850
V/C Ratio(X)	0.17	0.00	0.56	0.03	0.00	0.41	0.05	0.00	0.13	0.04	0.00	0.20
Avail Cap(c_a), veh/h	1022	0	1575	864	0	1646	655	0	738	750	0	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	12.0	15.1	0.0	11.2	7.7	0.0	6.6	7.0	0.0	7.0
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.0	0.0	0.4	0.2	0.0	0.4	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	2.8	0.1	0.0	2.0	0.2	0.0	0.5	0.2	0.0	1.0
Lane Grp Delay (d), s/veh	14.1	0.0	12.7	15.1	0.0	11.6	7.8	0.0	6.9	7.1	0.0	7.5
Lane Grp LOS	B		B	B		B	A		A	A		A
Approach Vol, veh/h		436			292			129			194	
Approach Delay, s/veh		13.0			11.7			7.2			7.5	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	20.1	20.1	26.0	26.0
Change Period (Y+Rc), s	5.7	5.7	5.7	5.7
Max Green Setting (Gmax), s	38.3	38.3	20.3	20.3
Max Q Clear Time (g_c+I1), s	9.6	10.0	5.4	4.6
Green Ext Time (p_c), s	3.0	3.0	1.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	109	153	65	9	127	36	46	126	31	34	104	114
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.94	0.97		0.94	0.98		0.98	0.98		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	197.6	178.8	178.8	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	315	330	141	270	346	98	657	802	199	696	449	492
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1159	1264	541	1059	1323	374	1120	1434	356	1140	802	880
Grp Volume(v), veh/h	118	0	237	10	0	177	50	0	171	37	0	237
Grp Sat Flow(s),veh/h/ln	1159	0	1805	1059	0	1696	1120	0	1790	1140	0	1682
Q Serve(g_s), s	6.0	0.0	7.2	0.5	0.0	5.6	1.6	0.0	3.0	1.1	0.0	4.7
Cycle Q Clear(g_c), s	11.6	0.0	7.2	7.8	0.0	5.6	6.2	0.0	3.0	4.1	0.0	4.7
Prop In Lane	1.00		0.30	1.00		0.22	1.00		0.20	1.00		0.52
Lane Grp Cap(c), veh/h	315	0	472	270	0	444	657	0	1001	696	0	941
V/C Ratio(X)	0.38	0.00	0.50	0.04	0.00	0.40	0.08	0.00	0.17	0.05	0.00	0.25
Avail Cap(c_a), veh/h	409	0	619	356	0	582	657	0	1001	696	0	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	0.0	20.3	23.6	0.0	19.7	8.9	0.0	6.9	7.9	0.0	7.3
Incr Delay (d2), s/veh	0.7	0.0	0.8	0.1	0.0	0.6	0.2	0.0	0.4	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.7	0.0	3.0	0.1	0.0	2.2	0.4	0.0	1.1	0.3	0.0	1.7
Lane Grp Delay (d), s/veh	25.2	0.0	21.1	23.7	0.0	20.3	9.1	0.0	7.3	8.1	0.0	8.0
Lane Grp LOS	C		C	C		C	A		A	A		A
Approach Vol, veh/h		355			187			221			274	
Approach Delay, s/veh		22.5			20.5			7.7			8.0	
Approach LOS		C			C			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		22.7			22.7			42.0			42.0	
Change Period (Y+Rc), s		5.8			5.8			5.8			5.8	
Max Green Setting (Gmax), s		22.2			22.2			36.2			36.2	
Max Q Clear Time (g_c+I1), s		13.6			9.8			8.2			6.7	
Green Ext Time (p_c), s		1.8			2.3			2.8			2.8	

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
79: Washington St & Front St

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	58	37	121	0	0	0	109	149	6	0	154	60
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.98	1.00		0.87
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	186.3	178.8				197.6	186.3	197.6	197.6	186.3	197.6
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	384	244	517				0	0	0	0	0	0
Arrive On Green	0.35	0.35	0.35				0.97	0.97	0.97	0.00	0.00	0.00
Sat Flow, veh/h	1106	702	1489				0	1771	77		-70749	-27537
Grp Volume(v), veh/h	103	0	132				0	0	169		0	232
Grp Sat Flow(s),veh/h/ln	1807	0	1489				0	0	1848		0	-98285
Q Serve(g_s), s	2.8	0.0	4.4				0.0	0.0	70.0		0.0	0.1
Cycle Q Clear(g_c), s	2.8	0.0	4.4				0.0	0.0	70.0		0.0	0.1
Prop In Lane	0.61		1.00				0.00		0.04			0.28
Lane Grp Cap(c), veh/h	627	0	517				0	0	0		0	-140
V/C Ratio(X)	0.16	0.00	0.26				0.00	0.00	0.00		0.00	-1.65
Avail Cap(c_a), veh/h	627	0	517				0	0	0		0	-29064
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	2.00		1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00		0.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	16.4				0.0	0.0	0.0		0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	1.2				0.0	0.0	0.0		0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	4.4				0.0	0.0	0.0		0.0	0.0
Lane Grp Delay (d), s/veh	16.4	0.0	17.6				0.0	0.0	0.0		0.0	0.0
Lane Grp LOS	B		B									
Approach Vol, veh/h		235						169			232	
Approach Delay, s/veh		17.0						0.0			0.0	
Approach LOS		B						A			A	

Timer												
Assigned Phs		4					5	2			6	
Phs Duration (G+Y+Rc), s		30.1					39.9	39.9			0.0	
Change Period (Y+Rc), s		5.8					5.8	5.8			5.8	
Max Green Setting (Gmax), s		24.3					7.6	34.1			20.7	
Max Q Clear Time (g_c+I1), s		6.4					0.0	72.0			0.0	
Green Ext Time (p_c), s		0.9					0.0	0.0			0.0	

Intersection Summary			
HCM 2010 Ctrl Delay			6.3
HCM 2010 LOS			A

Notes

PM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	195	390	73	28	379	26	94	66	38	52	69	284
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.98		0.94	0.96		0.94
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	178.8	186.3	197.6	178.8	186.3	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	379	715	133	331	808	55	245	386	220	467	108	443
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	902	1524	284	852	1723	117	973	1090	621	1170	304	1252
Grp Volume(v), veh/h	212	0	503	30	0	440	102	0	113	57	0	384
Grp Sat Flow(s),veh/h/ln	902	0	1808	852	0	1840	973	0	1711	1170	0	1556
Q Serve(g_s), s	14.5	0.0	13.9	1.8	0.0	11.3	6.8	0.0	3.1	2.4	0.0	14.4
Cycle Q Clear(g_c), s	25.9	0.0	13.9	15.7	0.0	11.3	21.2	0.0	3.1	5.5	0.0	14.4
Prop In Lane	1.00		0.16	1.00		0.06	1.00		0.36	1.00		0.80
Lane Grp Cap(c), veh/h	379	0	848	331	0	863	245	0	606	467	0	551
V/C Ratio(X)	0.56	0.00	0.59	0.09	0.00	0.51	0.42	0.00	0.19	0.12	0.00	0.70
Avail Cap(c_a), veh/h	408	0	907	359	0	923	245	0	606	467	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	13.2	19.0	0.0	12.6	27.9	0.0	15.1	17.0	0.0	18.8
Incr Delay (d2), s/veh	1.5	0.0	0.9	0.1	0.0	0.5	5.2	0.0	0.7	0.5	0.0	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.1	0.0	5.4	0.4	0.0	4.4	1.9	0.0	1.3	0.7	0.0	6.0
Lane Grp Delay (d), s/veh	23.1	0.0	14.2	19.1	0.0	13.0	33.0	0.0	15.8	17.6	0.0	25.9
Lane Grp LOS	C		B	B		B	C		B	B		C
Approach Vol, veh/h		715			470			215			441	
Approach Delay, s/veh		16.8			13.4			24.0			24.9	
Approach LOS		B			B			C			C	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	37.8	37.8	30.0	30.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	34.0	24.0	24.0
Max Q Clear Time (g_c+I1), s	27.9	17.7	23.2	16.4
Green Ext Time (p_c), s	3.3	6.2	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	447	31	125	562	3	103	4	123	0	2	3
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	179.9	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	648	45	262	657	3	689	18	602	0	236	355
Arrive On Green	0.00	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.39	0.39
Sat Flow, veh/h	0	1662	116	859	1684	8	1405	46	1544	0	606	910
Grp Volume(v), veh/h	0	0	520	136	0	614	112	0	138	0	0	5
Grp Sat Flow(s),veh/h/ln	0	0	1778	859	0	1692	1405	0	1590	0	0	1516
Q Serve(g_s), s	0.0	0.0	12.6	6.9	0.0	17.4	2.6	0.0	2.9	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.0	0.0	12.6	19.5	0.0	17.4	2.8	0.0	2.9	0.0	0.0	0.1
Prop In Lane	0.00		0.07	1.00		0.00	1.00		0.97	0.00		0.60
Lane Grp Cap(c), veh/h	0	0	693	262	0	660	689	0	620	0	0	591
V/C Ratio(X)	0.00	0.00	0.75	0.52	0.00	0.93	0.16	0.00	0.22	0.00	0.00	0.01
Avail Cap(c_a), veh/h	0	0	693	262	0	660	689	0	620	0	0	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	13.1	22.0	0.0	14.6	10.2	0.0	10.2	0.0	0.0	9.3
Incr Delay (d2), s/veh	0.0	0.0	4.5	1.8	0.0	19.9	0.5	0.0	0.8	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	5.4	1.6	0.0	9.4	0.8	0.0	1.1	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	17.7	23.8	0.0	34.5	10.7	0.0	11.0	0.0	0.0	9.3
Lane Grp LOS			B	C		C	B		B			A
Approach Vol, veh/h		520			750			250			5	
Approach Delay, s/veh		17.7			32.6			10.9			9.3	
Approach LOS		B			C			B			A	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	14.6	21.5	4.9	2.1
Green Ext Time (p_c), s	2.5	0.0	0.9	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	105	83	185	178	41	72	148	100	18	206	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	408	250	198	446	387	90	453	229	155	320	546	61
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1088	642	507	1169	993	231	1129	588	398	1103	1399	156
Grp Volume(v), veh/h	9	0	204	201	0	238	78	0	270	20	0	249
Grp Sat Flow(s),veh/h/ln	1088	0	1148	1169	0	1224	1129	0	986	1103	0	1555
Q Serve(g_s), s	0.3	0.0	6.6	7.7	0.0	7.4	2.7	0.0	11.5	0.8	0.0	5.8
Cycle Q Clear(g_c), s	7.7	0.0	6.6	14.3	0.0	7.4	8.5	0.0	11.5	12.3	0.0	5.8
Prop In Lane	1.00		0.44	1.00		0.19	1.00		0.40	1.00		0.10
Lane Grp Cap(c), veh/h	408	0	448	446	0	477	453	0	385	320	0	606
V/C Ratio(X)	0.02	0.00	0.46	0.45	0.00	0.50	0.17	0.00	0.70	0.06	0.00	0.41
Avail Cap(c_a), veh/h	408	0	448	446	0	477	453	0	385	320	0	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	11.3	16.6	0.0	11.5	14.2	0.0	12.8	18.0	0.0	11.1
Incr Delay (d2), s/veh	0.1	0.0	3.3	3.3	0.0	3.7	0.8	0.0	10.3	0.4	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	2.1	2.5	0.0	2.4	0.8	0.0	3.3	0.2	0.0	2.1
Lane Grp Delay (d), s/veh	14.6	0.0	14.6	19.9	0.0	15.2	15.0	0.0	23.1	18.3	0.0	13.1
Lane Grp LOS	B		B	B		B	B		C	B		B
Approach Vol, veh/h		213			439			348			269	
Approach Delay, s/veh		14.6			17.4			21.3			13.5	
Approach LOS		B			B			C			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	9.7	16.3	13.5	14.3
Green Ext Time (p_c), s	2.1	1.0	1.4	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	224	66	63	200	46	85	107	26	64	188	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	184.4	184.4	188.1	188.1	186.4	191.9	183.5	175.6	194.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	375	498	148	335	518	119	585	616	149	688	708	69
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	0.83	0.83	0.81	0.50	0.50	0.49
Sat Flow, veh/h	1116	1395	413	1050	1449	334	1160	1232	297	1216	1417	139
Grp Volume(v), veh/h	5	0	315	68	0	267	92	0	144	70	0	224
Grp Sat Flow(s),veh/h/ln	1116	0	1808	1050	0	1783	1160	0	1530	1216	0	1555
Q Serve(g_s), s	0.2	0.0	9.5	3.8	0.0	7.9	2.0	0.0	1.3	2.2	0.0	5.9
Cycle Q Clear(g_c), s	8.2	0.0	9.5	13.3	0.0	7.9	7.9	0.0	1.3	3.5	0.0	5.9
Prop In Lane	1.00		0.23	1.00		0.19	1.00		0.19	1.00		0.09
Lane Grp Cap(c), veh/h	375	0	646	335	0	637	585	0	765	688	0	778
V/C Ratio(X)	0.01	0.00	0.49	0.20	0.00	0.42	0.16	0.00	0.19	0.10	0.00	0.29
Avail Cap(c_a), veh/h	375	0	646	335	0	637	585	0	765	688	0	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	17.6	22.7	0.0	17.1	4.6	0.0	3.1	10.0	0.0	10.3
Incr Delay (d2), s/veh	0.1	0.0	2.6	1.4	0.0	2.0	0.6	0.0	0.5	0.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	4.5	1.1	0.0	3.6	0.4	0.0	0.5	0.7	0.0	2.2
Lane Grp Delay (d), s/veh	20.2	0.0	20.2	24.1	0.0	19.1	5.1	0.0	3.6	10.3	0.0	11.2
Lane Grp LOS	C		C	C		B	A		A	B		B
Approach Vol, veh/h		320			335			236			294	
Approach Delay, s/veh		20.2			20.1			4.2			11.0	
Approach LOS		C			C			A			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	11.5	15.3	9.9	7.9
Green Ext Time (p_c), s	2.4	2.0	2.2	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	147	211	24	144	11	217	168	40	15	144	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.68	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	168.1	186.3	190.0	158.3	186.3	197.6	186.3	181.9	197.6	186.3	190.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	467	230	330	286	576	44	527	369	87	448	504	128
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1089	683	978	840	1708	131	1179	961	226	1148	1312	334
Grp Volume(v), veh/h	48	0	389	26	0	169	236	0	226	16	0	197
Grp Sat Flow(s),veh/h/ln	1089	0	1661	840	0	1839	1179	0	1187	1148	0	1646
Q Serve(g_s), s	1.4	0.0	8.4	1.2	0.0	2.8	7.3	0.0	6.0	0.4	0.0	3.5
Cycle Q Clear(g_c), s	4.2	0.0	8.4	9.6	0.0	2.8	10.8	0.0	6.0	6.5	0.0	3.5
Prop In Lane	1.00		0.59	1.00		0.07	1.00		0.19	1.00		0.20
Lane Grp Cap(c), veh/h	467	0	560	286	0	620	527	0	456	448	0	633
V/C Ratio(X)	0.10	0.00	0.69	0.09	0.00	0.27	0.45	0.00	0.50	0.04	0.00	0.31
Avail Cap(c_a), veh/h	732	0	965	490	0	1068	1042	0	974	949	0	1351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.6	0.0	11.9	16.1	0.0	10.1	12.7	0.0	9.8	12.2	0.0	9.0
Incr Delay (d2), s/veh	0.1	0.0	1.6	0.1	0.0	0.2	0.6	0.0	0.8	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	2.8	0.2	0.0	1.0	1.9	0.0	1.5	0.1	0.0	1.2
Lane Grp Delay (d), s/veh	11.7	0.0	13.5	16.2	0.0	10.3	13.3	0.0	10.6	12.2	0.0	9.2
Lane Grp LOS	B		B	B		B	B		B	B		A
Approach Vol, veh/h		437			195			462			213	
Approach Delay, s/veh		13.3			11.1			12.0			9.5	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	19.9	19.9	21.8	21.8
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	24.2	24.2	34.2	34.2
Max Q Clear Time (g_c+I1), s	10.4	11.6	12.8	8.5
Green Ext Time (p_c), s	2.3	2.2	2.9	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	11.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	64	57	1	33	39	30	231	7	7	221	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.98	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	0.82	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	188.2	195.7	194.6	186.9	194.6	187.2	187.2	191.0	184.4	182.9	188.1
Lanes	1	1	1	0	1	0	1	1	0	1	1	0
Cap, veh/h	656	815	581	62	341	389	477	680	22	478	656	115
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.42	0.43	0.43	0.42	0.43	0.43	0.42
Sat Flow, veh/h	1322	1882	1340	4	788	898	1093	1570	50	1102	1514	265
Grp Volume(v), veh/h	58	70	62	79	0	0	33	0	259	8	0	282
Grp Sat Flow(s),veh/h/ln	1322	1882	1340	1689	0	0	1093	0	1620	1102	0	1779
Q Serve(g_s), s	1.6	1.3	1.6	0.0	0.0	0.0	1.3	0.0	6.5	0.3	0.0	6.4
Cycle Q Clear(g_c), s	3.3	1.3	1.6	1.7	0.0	0.0	7.7	0.0	6.5	6.8	0.0	6.4
Prop In Lane	1.00		1.00	0.01		0.53	1.00		0.03	1.00		0.15
Lane Grp Cap(c), veh/h	656	815	581	793	0	0	477	0	702	478	0	771
V/C Ratio(X)	0.09	0.09	0.11	0.10	0.00	0.00	0.07	0.00	0.37	0.02	0.00	0.37
Avail Cap(c_a), veh/h	656	815	581	793	0	0	477	0	702	478	0	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.1	10.0	10.1	10.3	0.0	0.0	14.0	0.0	11.5	13.8	0.0	11.5
Incr Delay (d2), s/veh	0.3	0.2	0.4	0.3	0.0	0.0	0.3	0.0	1.5	0.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.6	0.5	0.7	0.0	0.0	0.4	0.0	2.6	0.1	0.0	2.8
Lane Grp Delay (d), s/veh	11.4	10.2	10.5	10.5	0.0	0.0	14.3	0.0	13.0	13.8	0.0	12.8
Lane Grp LOS	B	B	B	B			B		B	B		B
Approach Vol, veh/h		190			79			292			290	
Approach Delay, s/veh		10.6			10.5			13.1			12.9	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	5.3	3.7	9.7	8.8
Green Ext Time (p_c), s	1.0	1.1	2.2	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	148	124	4	76	18	26	203	8	11	233	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	185.7	192.8	188.1	184.4	188.1	188.1	188.1	191.9	185.3	180.5	189.0
Lanes	1	1	0	0	1	0	1	1	0	1	1	0
Cap, veh/h	457	264	221	85	403	94	659	711	29	666	879	90
Arrive On Green	0.29	0.29	0.26	0.29	0.29	0.26	0.55	0.55	0.53	0.55	0.55	0.53
Sat Flow, veh/h	1277	923	774	22	1412	330	1101	1301	53	1134	1609	165
Grp Volume(v), veh/h	54	0	296	107	0	0	28	0	230	12	0	279
Grp Sat Flow(s),veh/h/ln	1277	0	1698	1763	0	0	1101	0	1354	1134	0	1774
Q Serve(g_s), s	1.6	0.0	7.2	0.0	0.0	0.0	0.7	0.0	4.4	0.3	0.0	4.0
Cycle Q Clear(g_c), s	3.8	0.0	7.2	2.2	0.0	0.0	4.7	0.0	4.4	4.7	0.0	4.0
Prop In Lane	1.00		0.46	0.04		0.19	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	457	0	484	582	0	0	659	0	740	666	0	970
V/C Ratio(X)	0.12	0.00	0.61	0.18	0.00	0.00	0.04	0.00	0.31	0.02	0.00	0.29
Avail Cap(c_a), veh/h	790	0	928	1034	0	0	659	0	740	666	0	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	14.9	13.0	0.0	0.0	7.1	0.0	5.9	7.2	0.0	5.8
Incr Delay (d2), s/veh	0.1	0.0	1.3	0.2	0.0	0.0	0.1	0.0	1.1	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	2.8	0.9	0.0	0.0	0.2	0.0	1.4	0.1	0.0	1.5
Lane Grp Delay (d), s/veh	14.5	0.0	16.2	13.2	0.0	0.0	7.2	0.0	7.0	7.2	0.0	6.6
Lane Grp LOS	B		B	B			A		A	A		A
Approach Vol, veh/h		350			107			258			291	
Approach Delay, s/veh		15.9			13.2			7.0			6.6	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	17.6	17.6	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	9.2	4.2	6.7	6.7
Green Ext Time (p_c), s	1.8	1.9	2.2	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
30: Front St & Hewitt Ave

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	32	20	17	28	6	22	154	14	1	140	11
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	182.4	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	97	366	207	225	357	75	119	768	65	52	860	67
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	114	1067	604	457	1042	219	127	1581	134	1	1770	139
Grp Volume(v), veh/h	65	0	0	55	0	0	206	0	0	165	0	0
Grp Sat Flow(s),veh/h/ln	1785	0	0	1717	0	0	1843	0	0	1910	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	1.4	0.0	0.0	4.3	0.0	0.0	3.4	0.0	0.0
Prop In Lane	0.12		0.34	0.33		0.13	0.12		0.07	0.01		0.07
Lane Grp Cap(c), veh/h	670	0	0	657	0	0	953	0	0	980	0	0
V/C Ratio(X)	0.10	0.00	0.00	0.08	0.00	0.00	0.22	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	670	0	0	657	0	0	953	0	0	980	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.7	0.0	0.0	15.6	0.0	0.0	10.4	0.0	0.0	10.1	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	0.0	0.6	0.0	0.0	1.9	0.0	0.0	1.4	0.0	0.0
Lane Grp Delay (d), s/veh	16.0	0.0	0.0	15.8	0.0	0.0	10.9	0.0	0.0	10.5	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		65			55			206			165	
Approach Delay, s/veh		16.0			15.8			10.9			10.5	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.7	3.4	6.3	5.4
Green Ext Time (p_c), s	0.5	0.5	2.1	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.0
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
31: N 3rd St/N 3 rd St & Hewitt Ave

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	42	20	13	30	17	10	310	24	23	368	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	125	382	164	152	343	166	62	873	66	79	883	34
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	190	1113	478	262	1001	484	18	1747	132	50	1765	68
Grp Volume(v), veh/h	82	0	0	65	0	0	374	0	0	441	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	0	1746	0	0	1897	0	0	1884	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.7	0.0	0.0	8.5	0.0	0.0	10.4	0.0	0.0
Prop In Lane	0.17		0.27	0.22		0.28	0.03		0.07	0.06		0.04
Lane Grp Cap(c), veh/h	671	0	0	661	0	0	1001	0	0	996	0	0
V/C Ratio(X)	0.12	0.00	0.00	0.10	0.00	0.00	0.37	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	671	0	0	661	0	0	1001	0	0	996	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.8	0.0	0.0	15.7	0.0	0.0	10.9	0.0	0.0	11.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.3	0.0	0.0	1.1	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	0.0	0.0	0.7	0.0	0.0	3.6	0.0	0.0	4.4	0.0	0.0
Lane Grp Delay (d), s/veh	16.2	0.0	0.0	16.0	0.0	0.0	11.9	0.0	0.0	12.8	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		82			65			374			441	
Approach Delay, s/veh		16.2			16.0			11.9			12.8	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	24.0	24.0	35.0	35.0
Max Q Clear Time (g_c+I1), s	4.1	3.7	10.5	12.4
Green Ext Time (p_c), s	0.7	0.7	5.3	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	48	16	17	30	399	0	0	423	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	0.0	186.3	0.0	186.3	186.3	197.6	178.8	186.3	0.0	0.0	186.3	197.6
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	333	0	420	144	152	663	1221	0	0	1105	98
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.66	0.66	0.00	0.00	1.00	1.00
Sat Flow, veh/h	0	1863	0	1774	806	853	855	1863	0	0	1685	150
Grp Volume(v), veh/h	0	0	0	52	0	35	33	434	0	0	0	501
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	0	1659	855	1863	0	0	0	1835
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	1.2	1.0	7.3	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.7	0.0	1.2	1.0	7.3	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	1.00		0.51	1.00		0.00	0.00		0.08
Lane Grp Cap(c), veh/h	0	333	0	420	0	296	663	1221	0	0	0	1203
V/C Ratio(X)	0.00	0.00	0.00	0.12	0.00	0.12	0.05	0.36	0.00	0.00	0.00	0.42
Avail Cap(c_a), veh/h	0	333	0	420	0	296	663	1221	0	0	0	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	24.3	0.0	24.1	4.3	5.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	0.8	0.1	0.8	0.0	0.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.8	0.0	0.6	0.2	2.7	0.0	0.0	0.0	0.4
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	24.9	0.0	24.9	4.5	6.2	0.0	0.0	0.0	1.1
Lane Grp LOS				C		C	A	A				A
Approach Vol, veh/h		0			87			467			501	
Approach Delay, s/veh		0.0			24.9			6.1			1.1	
Approach LOS					C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	18.3	18.3	51.7	51.7
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	12.5	12.5	45.9	45.9
Max Q Clear Time (g_c+I1), s	0.0	3.7	9.3	2.0
Green Ext Time (p_c), s	0.0	0.1	7.0	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	5.3
HCM 2010 LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	23	108	86	74	171	203	77	694	43	69	583	42
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	184.0	191.0	190.0	173.4	193.8	193.7	146.2	142.9	191.8	162.2	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	113	248	197	299	189	224	157	1125	466	155	1249	602
Arrive On Green	0.28	0.26	0.26	0.28	0.26	0.26	0.09	0.38	0.38	0.09	0.38	0.38
Sat Flow, veh/h	979	950	755	1189	722	858	1845	2923	1211	1827	3243	1563
Grp Volume(v), veh/h	25	0	210	80	0	407	84	754	47	75	634	46
Grp Sat Flow(s),veh/h/ln	979	0	1705	1189	0	1580	1845	1462	1211	1827	1622	1563
Q Serve(g_s), s	1.9	0.0	8.3	4.8	0.0	20.5	3.5	17.1	2.0	3.1	12.0	1.5
Cycle Q Clear(g_c), s	22.4	0.0	8.3	13.1	0.0	20.5	3.5	17.1	2.0	3.1	12.0	1.5
Prop In Lane	1.00		0.44	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	0	445	299	0	413	157	1125	466	155	1249	602
V/C Ratio(X)	0.22	0.00	0.47	0.27	0.00	0.99	0.54	0.67	0.10	0.48	0.51	0.08
Avail Cap(c_a), veh/h	113	0	445	299	0	413	157	1125	466	155	1249	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	0.0	24.9	29.1	0.0	29.4	35.1	20.4	15.7	34.9	18.8	15.6
Incr Delay (d2), s/veh	1.0	0.0	0.8	0.5	0.0	40.4	12.5	3.2	0.4	10.4	1.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	3.6	1.4	0.0	12.7	2.1	5.9	0.6	1.8	4.5	0.6
Lane Grp Delay (d), s/veh	40.1	0.0	25.7	29.6	0.0	69.8	47.6	23.6	16.2	45.3	20.3	15.8
Lane Grp LOS	D		C	C		E	D	C	B	D	C	B
Approach Vol, veh/h		235			487			885			755	
Approach Delay, s/veh		27.2			63.2			25.5			22.5	
Approach LOS		C			E			C			C	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		30.0			30.0		13.0	37.0		13.0	37.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		20.9			20.9		6.8	30.8		6.8	30.8	
Max Q Clear Time (g_c+I1), s		24.4			22.5		5.5	19.1		5.1	14.0	
Green Ext Time (p_c), s		0.0			0.0		0.0	4.7		0.0	5.5	

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	64	38	50	102	45	13	33	726	59	7	1034	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	456	219	289	425	418	119	244	1879	152	359	1892	141
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1334	731	962	1295	1394	398	461	3401	276	644	3425	256
Grp Volume(v), veh/h	70	0	95	111	0	63	36	432	421	8	611	597
Grp Sat Flow(s),veh/h/ln	1334	0	1693	1295	0	1792	461	1863	1814	644	1863	1818
Q Serve(g_s), s	3.2	0.0	3.3	5.6	0.0	2.0	4.5	10.8	10.8	0.6	17.5	17.5
Cycle Q Clear(g_c), s	5.3	0.0	3.3	8.9	0.0	2.0	22.0	10.8	10.8	11.4	17.5	17.5
Prop In Lane	1.00		0.57	1.00		0.22	1.00		0.15	1.00		0.14
Lane Grp Cap(c), veh/h	456	0	508	425	0	538	244	1029	1002	359	1029	1004
V/C Ratio(X)	0.15	0.00	0.19	0.26	0.00	0.12	0.15	0.42	0.42	0.02	0.59	0.59
Avail Cap(c_a), veh/h	456	0	508	425	0	538	244	1029	1002	359	1029	1004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	20.8	24.1	0.0	20.3	19.3	10.4	10.4	13.8	11.9	11.9
Incr Delay (d2), s/veh	0.7	0.0	0.8	1.5	0.0	0.4	1.3	1.3	1.3	0.1	2.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	1.5	1.9	0.0	0.9	0.6	4.6	4.5	0.1	7.5	7.4
Lane Grp Delay (d), s/veh	22.9	0.0	21.6	25.6	0.0	20.8	20.5	11.7	11.7	13.9	14.4	14.5
Lane Grp LOS	C		C	C		C	C	B	B	B	B	B
Approach Vol, veh/h		165			174			889			1216	
Approach Delay, s/veh		22.2			23.8			12.1			14.5	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		30.0			30.0			50.0			50.0	
Change Period (Y+Rc), s		6.0			6.0			5.8			5.8	
Max Green Setting (Gmax), s		24.0			24.0			44.2			44.2	
Max Q Clear Time (g_c+I1), s		0.0			0.0			0.0			0.0	
Green Ext Time (p_c), s		0.0			0.0			0.0			0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			14.8									
HCM 2010 LOS			B									

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	0	0	777	735	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	16
Total Lost time (s)				7.7	6.0	
Lane Util. Factor				0.95	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3539	3433	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3539	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	845	799	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	845	799	0
Turn Type				NA	NA	
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				36.3	30.0	
Effective Green, g (s)				36.3	30.0	
Actuated g/C Ratio				0.45	0.38	
Clearance Time (s)				7.7	6.0	
Vehicle Extension (s)				0.2	0.2	
Lane Grp Cap (vph)				1605	1287	
v/s Ratio Prot				c0.24	c0.23	
v/s Ratio Perm						
v/c Ratio				0.53	0.62	
Uniform Delay, d1				15.7	20.4	
Progression Factor				1.00	0.05	
Incremental Delay, d2				1.2	1.7	
Delay (s)				16.9	2.6	
Level of Service				B	A	
Approach Delay (s)	0.0			16.9	2.6	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
270: US 41 & Washington St

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Volume (vph)	0	509	0	0	0	0	0	0	0	735
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	12	16	16	16	16	13	16	16	16
Total Lost time (s)		7.7								6.0
Lane Util. Factor		0.95								0.88
Frt		1.00								0.85
Flt Protected		1.00								1.00
Satd. Flow (prot)		3539								3158
Flt Permitted		1.00								1.00
Satd. Flow (perm)		3539								3158
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	553	0	0	0	0	0	0	0	799
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	553	0	0	0	0	0	0	0	799
Turn Type		NA								custom
Protected Phases		1								
Permitted Phases										2
Actuated Green, G (s)		36.3								30.0
Effective Green, g (s)		36.3								30.0
Actuated g/C Ratio		0.45								0.38
Clearance Time (s)		7.7								6.0
Vehicle Extension (s)		0.2								0.2
Lane Grp Cap (vph)		1605								1184
v/s Ratio Prot		c0.16								
v/s Ratio Perm										c0.25
v/c Ratio		0.34								0.67
Uniform Delay, d1		14.1								20.9
Progression Factor		1.00								1.90
Incremental Delay, d2		0.6								2.7
Delay (s)		14.7								42.5
Level of Service		B								D
Approach Delay (s)		14.7			0.0		0.0		42.5	
Approach LOS		B			A		A		D	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	108	400	56	141	580	100	81	283	99	105	388	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	184.4	177.0	195.6
Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Cap, veh/h	325	1442	201	429	1395	241	306	1075	369	385	980	386
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.41	0.38	0.38	0.41	0.38
Sat Flow, veh/h	716	3200	446	897	3095	535	823	2652	911	956	2418	952
Grp Volume(v), veh/h	117	252	244	153	379	360	88	214	202	114	308	282
Grp Sat Flow(s),veh/h/ln	716	1863	1783	897	1863	1767	823	1863	1701	956	1770	1601
Q Serve(g_s), s	9.4	6.0	6.1	9.2	9.8	9.9	6.3	5.4	5.7	6.7	8.8	9.1
Cycle Q Clear(g_c), s	19.3	6.0	6.1	15.3	9.8	9.9	15.4	5.4	5.7	12.4	8.8	9.1
Prop In Lane	1.00		0.25	1.00		0.30	1.00		0.54	1.00		0.59
Lane Grp Cap(c), veh/h	325	840	804	429	840	797	306	755	689	385	717	649
V/C Ratio(X)	0.36	0.30	0.30	0.36	0.45	0.45	0.29	0.28	0.29	0.30	0.43	0.44
Avail Cap(c_a), veh/h	325	840	804	429	840	797	306	755	689	385	717	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	12.2	12.2	17.1	13.3	13.3	22.3	14.0	14.5	19.8	15.0	15.5
Incr Delay (d2), s/veh	3.1	0.9	1.0	2.3	1.7	1.9	2.4	0.9	1.1	2.0	1.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.8	2.6	2.5	2.1	4.3	4.1	1.4	2.4	2.3	1.7	3.7	3.6
Lane Grp Delay (d), s/veh	23.0	13.1	13.2	19.4	15.0	15.1	24.6	15.0	15.5	21.7	16.9	17.7
Lane Grp LOS	C	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		613			892			504			704	
Approach Delay, s/veh		15.1			15.8			16.9			18.0	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		37.7			37.7			32.4			32.4	
Change Period (Y+Rc), s		6.1			6.1			6.0			6.0	
Max Green Setting (Gmax), s		31.6			31.5			26.4			26.4	
Max Q Clear Time (g_c+I1), s		21.3			17.3			17.4			14.4	
Green Ext Time (p_c), s		5.8			7.1			3.4			4.0	

Intersection Summary												
HCM 2010 Ctrl Delay			16.4									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	727	121	0	261	0	0	360	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			2%			0%			6%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3397	1555		1781			1771	1413
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3397	1555		1781			1771	1413
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	790	132	0	284	0	0	391	233
RTOR Reduction (vph)	0	0	0	0	0	74	0	0	0	0	0	59
Lane Group Flow (vph)	0	0	0	0	790	58	0	284	0	0	391	174
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	2%	6%	11%	2%	5%	2%	2%	2%	4%	2%	2%	9%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1490	682		819			726	579
v/s Ratio Prot					c0.23			0.16			c0.22	
v/s Ratio Perm						0.04						0.12
v/c Ratio					0.53	0.08		0.35			0.54	0.30
Uniform Delay, d1					16.4	13.1		13.9			17.9	15.9
Progression Factor					1.00	1.00		0.07			1.00	1.00
Incremental Delay, d2					1.4	0.2		1.1			2.9	1.3
Delay (s)					17.8	13.3		2.1			20.7	17.2
Level of Service					B	B		A			C	B
Approach Delay (s)		0.0			17.1			2.1			19.4	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
110: McCLELLAN AVE/McCLELLEN AVE & US 41

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	786	321	0	0	0	0	261	191	0	360	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	20	20	20	20	20	20
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2006					2359	2006		2359	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2006					2359	2006		2359	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	854	349	0	0	0	0	284	208	0	391	0
RTOR Reduction (vph)	0	0	195	0	0	0	0	0	50	0	0	0
Lane Group Flow (vph)	0	854	154	0	0	0	0	284	158	0	391	0
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1552	880					928	789		1046	
v/s Ratio Prot		c0.24						0.12			c0.17	
v/s Ratio Perm			0.08						0.08			
v/c Ratio		0.55	0.17					0.31	0.20		0.37	
Uniform Delay, d1		16.6	13.6					16.7	16.0		14.8	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		1.4	0.4					0.9	0.6		0.9	
Delay (s)		18.0	14.1					17.6	16.5		0.9	
Level of Service		B	B					B	B		A	
Approach Delay (s)		16.9			0.0			17.1			0.9	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 Signalized Intersection Summary
70: LINCOLN AVE & W Fair Ave

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	29	60	136	11	102	6	124	77	11	9	131	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.79	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	177.9	168.7	196.6	199.6	192.4	199.6	195.6	184.2	195.6
Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Cap, veh/h	497	141	321	370	495	31	523	309	40	83	797	107
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.33	0.52	0.52	0.50	0.52	0.52	0.50
Sat Flow, veh/h	1279	403	917	1110	1413	89	828	598	78	38	1543	208
Grp Volume(v), veh/h	32	0	213	12	0	118	231	0	0	172	0	0
Grp Sat Flow(s),veh/h/ln	1279	0	1319	1110	0	1502	1504	0	0	1788	0	0
Q Serve(g_s), s	1.1	0.0	7.5	0.5	0.0	3.3	1.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	7.5	8.0	0.0	3.3	4.3	0.0	0.0	3.1	0.0	0.0
Prop In Lane	1.00		0.69	1.00		0.06	0.58		0.05	0.06		0.12
Lane Grp Cap(c), veh/h	497	0	462	370	0	526	872	0	0	988	0	0
V/C Ratio(X)	0.06	0.00	0.46	0.03	0.00	0.22	0.26	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	497	0	462	370	0	526	872	0	0	988	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.3	0.0	15.1	18.2	0.0	13.8	8.0	0.0	0.0	7.8	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	3.3	0.2	0.0	1.0	0.7	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	2.7	0.2	0.0	1.3	1.8	0.0	0.0	1.3	0.0	0.0
Lane Grp Delay (d), s/veh	15.6	0.0	18.4	18.4	0.0	14.8	8.7	0.0	0.0	8.2	0.0	0.0
Lane Grp LOS	B		B	B		B	A			A		
Approach Vol, veh/h		245			130			231			172	
Approach Delay, s/veh		18.0			15.1			8.7			8.2	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	35.0	35.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	20.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	9.5	10.0	6.3	5.1
Green Ext Time (p_c), s	1.2	1.1	1.7	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	23	17	89	9	97	5	122	44	92	183	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	178.8	178.8	197.6	178.8	178.8	197.6	178.8	178.8	197.6
Lanes	0	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	69	163	114	305	21	216	785	783	283	799	1116	0
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.62	0.62	0.62	0.62	0.62	0.00
Sat Flow, veh/h	12	1045	732	1285	132	1385	1132	1255	453	1150	1788	0
Grp Volume(v), veh/h	44	0	0	97	0	115	5	0	181	100	199	0
Grp Sat Flow(s),veh/h/ln	1788	0	0	1285	0	1517	1132	0	1708	1150	1788	0
Q Serve(g_s), s	0.0	0.0	0.0	3.8	0.0	3.8	0.1	0.0	2.4	2.2	2.6	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	5.0	0.0	3.8	2.7	0.0	2.4	4.6	2.6	0.0
Prop In Lane	0.02		0.41	1.00		0.91	1.00		0.27	1.00		0.00
Lane Grp Cap(c), veh/h	346	0	0	305	0	236	785	0	1066	799	1116	0
V/C Ratio(X)	0.13	0.00	0.00	0.32	0.00	0.49	0.01	0.00	0.17	0.13	0.18	0.00
Avail Cap(c_a), veh/h	852	0	0	671	0	668	785	0	1066	799	1116	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.9	0.0	0.0	22.1	0.0	21.0	4.9	0.0	4.3	5.3	4.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	1.6	0.0	0.0	0.3	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	0.0	1.2	0.0	1.4	0.0	0.0	0.8	0.5	0.8	0.0
Lane Grp Delay (d), s/veh	20.1	0.0	0.0	22.7	0.0	22.6	4.9	0.0	4.6	5.6	4.7	0.0
Lane Grp LOS	C			C		C	A		A	A	A	
Approach Vol, veh/h		44			212			186			299	
Approach Delay, s/veh		20.1			22.6			4.7			5.0	
Approach LOS		C			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	14.5	14.5	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.2	7.0	4.7	6.6
Green Ext Time (p_c), s	1.1	1.0	2.5	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	440	4	0	599	54	3	0	0	111	0	149
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	190.0	193.7	197.6	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Cap, veh/h	283	975	8	113	890	81	404	0	0	434	0	488
Arrive On Green	0.53	0.53	0.53	0.00	0.53	0.53	0.31	0.00	0.00	0.31	0.00	0.31
Sat Flow, veh/h	736	1845	15	909	1683	153	943	0	0	1412	0	1583
Grp Volume(v), veh/h	82	0	482	0	0	710	3	0	0	121	0	162
Grp Sat Flow(s),veh/h/ln	736	0	1860	909	0	1836	943	0	0	1412	0	1583
Q Serve(g_s), s	6.1	0.0	10.5	0.0	0.0	18.9	0.1	0.0	0.0	4.6	0.0	5.0
Cycle Q Clear(g_c), s	25.1	0.0	10.5	0.0	0.0	18.9	5.1	0.0	0.0	9.7	0.0	5.0
Prop In Lane	1.00		0.01	1.00		0.08	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	0	983	113	0	970	404	0	0	434	0	488
V/C Ratio(X)	0.29	0.00	0.49	0.00	0.00	0.73	0.01	0.00	0.00	0.28	0.00	0.33
Avail Cap(c_a), veh/h	357	0	1169	204	0	1154	404	0	0	434	0	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	9.5	0.0	0.0	11.5	19.0	0.0	0.0	20.8	0.0	17.0
Incr Delay (d2), s/veh	0.6	0.0	0.4	0.0	0.0	2.0	0.0	0.0	0.0	1.6	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	3.9	0.0	0.0	7.2	0.0	0.0	0.0	1.7	0.0	2.0
Lane Grp Delay (d), s/veh	21.7	0.0	9.9	0.0	0.0	13.5	19.0	0.0	0.0	22.4	0.0	18.8
Lane Grp LOS	C		A			B	B			C		B
Approach Vol, veh/h		564			710			3			283	
Approach Delay, s/veh		11.6			13.5			19.0			20.3	
Approach LOS		B			B			B			C	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	38.6	38.6	25.0	25.0
Change Period (Y+Rc), s	5.0	5.0	5.4	5.4
Max Green Setting (Gmax), s	40.0	40.0	19.6	19.6
Max Q Clear Time (g_c+I1), s	27.1	20.9	7.1	11.7
Green Ext Time (p_c), s	6.5	8.1	1.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
74: 7th St & MAGNETIC ST

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	67	25	48	83	18	18	198	21	16	226	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	199.6	195.2	199.6	194.6	190.8	194.6	200.6	196.6	200.6	194.6	190.8	194.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	55	485	176	224	368	74	90	825	84	80	900	11
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	0.50	0.50	0.49	1.00	1.00	0.97
Sat Flow, veh/h	8	1359	492	437	1031	207	69	1650	168	50	1801	21
Grp Volume(v), veh/h	102	0	0	162	0	0	258	0	0	266	0	0
Grp Sat Flow(s),veh/h/ln	1859	0	0	1675	0	0	1887	0	0	1872	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.0	4.3	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.02		0.26	0.32		0.12	0.08		0.09	0.06		0.01
Lane Grp Cap(c), veh/h	716	0	0	666	0	0	999	0	0	991	0	0
V/C Ratio(X)	0.14	0.00	0.00	0.24	0.00	0.00	0.26	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	716	0	0	666	0	0	999	0	0	991	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	15.9	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.9	0.0	0.0	0.6	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	0.0	2.0	0.0	0.0	2.5	0.0	0.0	0.2	0.0	0.0
Lane Grp Delay (d), s/veh	15.8	0.0	0.0	16.8	0.0	0.0	10.8	0.0	0.0	0.7	0.0	0.0
Lane Grp LOS	B			B			B			A		
Approach Vol, veh/h		102			162			258			266	
Approach Delay, s/veh		15.8			16.8			10.8			0.7	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	4.6	6.3	7.4	2.0
Green Ext Time (p_c), s	1.0	0.9	2.2	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	369	80	21	388	23	41	88	26	33	169	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	184.2	191.9	203.5
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	326	605	131	291	711	42	448	570	166	578	479	263
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	937	1482	322	902	1741	103	1090	1387	405	1248	1166	640
Grp Volume(v), veh/h	82	0	488	23	0	447	45	0	124	36	0	285
Grp Sat Flow(s),veh/h/ln	937	0	1804	902	0	1844	1090	0	1791	1248	0	1806
Q Serve(g_s), s	4.5	0.0	13.1	1.3	0.0	11.3	1.8	0.0	2.6	1.1	0.0	6.6
Cycle Q Clear(g_c), s	15.8	0.0	13.1	14.4	0.0	11.3	8.4	0.0	2.6	3.7	0.0	6.6
Prop In Lane	1.00		0.18	1.00		0.06	1.00		0.23	1.00		0.35
Lane Grp Cap(c), veh/h	326	0	737	291	0	753	448	0	736	578	0	742
V/C Ratio(X)	0.25	0.00	0.66	0.08	0.00	0.59	0.10	0.00	0.17	0.06	0.00	0.38
Avail Cap(c_a), veh/h	485	0	1043	444	0	1066	448	0	736	578	0	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	14.4	20.2	0.0	13.8	15.3	0.0	11.2	12.3	0.0	12.3
Incr Delay (d2), s/veh	0.4	0.0	1.0	0.1	0.0	0.8	0.4	0.0	0.5	0.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	0.0	5.2	0.3	0.0	4.5	0.5	0.0	1.1	0.3	0.0	3.0
Lane Grp Delay (d), s/veh	20.4	0.0	15.4	20.3	0.0	14.6	15.7	0.0	11.6	12.5	0.0	13.8
Lane Grp LOS	C		B	C		B	B		B	B		B
Approach Vol, veh/h		570			470			169			321	
Approach Delay, s/veh		16.1			14.9			12.7			13.7	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	29.9	29.9	30.0	30.0
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	34.6	34.6	24.6	24.6
Max Q Clear Time (g_c+I1), s	17.8	16.4	10.4	8.6
Green Ext Time (p_c), s	5.8	6.0	2.4	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
76: Washington St & 5th St

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	372	28	1	368	7	34	7	31	4	9	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	199.6	186.3	193.7	197.6	186.3	186.3	197.6	186.3	178.8	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	475	882	66	445	965	19	556	104	441	533	308	246
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	982	1730	128	950	1893	38	1387	310	1318	1357	921	736
Grp Volume(v), veh/h	10	0	434	1	0	408	37	0	42	4	0	18
Grp Sat Flow(s),veh/h/ln	982	0	1858	950	0	1930	1387	0	1628	1357	0	1657
Q Serve(g_s), s	0.4	0.0	10.5	0.0	0.0	9.2	1.3	0.0	1.2	0.1	0.0	0.5
Cycle Q Clear(g_c), s	9.6	0.0	10.5	10.5	0.0	9.2	1.8	0.0	1.2	1.4	0.0	0.5
Prop In Lane	1.00		0.07	1.00		0.02	1.00		0.81	1.00		0.44
Lane Grp Cap(c), veh/h	475	0	948	445	0	985	556	0	544	533	0	554
V/C Ratio(X)	0.02	0.00	0.46	0.00	0.00	0.41	0.07	0.00	0.08	0.01	0.00	0.03
Avail Cap(c_a), veh/h	475	0	948	445	0	985	556	0	544	533	0	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	11.0	14.3	0.0	10.7	16.3	0.0	15.9	16.4	0.0	15.7
Incr Delay (d2), s/veh	0.1	0.0	1.6	0.0	0.0	1.3	0.2	0.0	0.3	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	4.4	0.0	0.0	4.0	0.4	0.0	0.5	0.0	0.0	0.2
Lane Grp Delay (d), s/veh	13.7	0.0	12.6	14.3	0.0	11.9	16.5	0.0	16.2	16.4	0.0	15.8
Lane Grp LOS	B		B	B		B	B		B	B		B
Approach Vol, veh/h		444			409			79			22	
Approach Delay, s/veh		12.6			11.9			16.3			15.9	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	41.2	41.2	28.8	28.8
Change Period (Y+Rc), s	5.5	5.5	5.4	5.4
Max Green Setting (Gmax), s	35.7	35.7	23.4	23.4
Max Q Clear Time (g_c+I1), s	12.5	12.5	3.8	3.4
Green Ext Time (p_c), s	5.4	5.4	0.3	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	77	272	28	8	196	23	36	92	10	35	139	78
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	1.00	1.00	0.99
Adj Sat Flow veh/h/ln	195.7	184.4	191.9	184.4	191.8	195.6	178.0	186.9	190.7	189.1	190.7	200.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	438	541	55	351	553	65	635	707	78	774	578	326
Arrive On Green	0.33	0.33	0.28	0.33	0.33	0.28	0.51	0.51	0.46	0.51	0.51	0.46
Sat Flow, veh/h	1186	1645	167	1033	1682	197	1085	1381	152	1290	1130	636
Grp Volume(v), veh/h	84	0	326	9	0	238	39	0	111	38	0	236
Grp Sat Flow(s),veh/h/ln	1186	0	1811	1033	0	1880	1085	0	1533	1290	0	1766
Q Serve(g_s), s	2.6	0.0	6.5	0.3	0.0	4.3	0.9	0.0	1.7	0.7	0.0	3.4
Cycle Q Clear(g_c), s	6.9	0.0	6.5	6.8	0.0	4.3	4.3	0.0	1.7	2.4	0.0	3.4
Prop In Lane	1.00		0.09	1.00		0.11	1.00		0.10	1.00		0.36
Lane Grp Cap(c), veh/h	438	0	596	351	0	618	635	0	785	774	0	904
V/C Ratio(X)	0.19	0.00	0.55	0.03	0.00	0.38	0.06	0.00	0.14	0.05	0.00	0.26
Avail Cap(c_a), veh/h	1140	0	1669	963	0	1732	635	0	785	774	0	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	0.0	12.2	14.9	0.0	11.4	7.3	0.0	5.7	6.3	0.0	6.3
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.0	0.0	0.4	0.2	0.0	0.4	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	2.4	0.1	0.0	1.7	0.2	0.0	0.6	0.2	0.0	1.3
Lane Grp Delay (d), s/veh	14.2	0.0	12.9	14.9	0.0	11.8	7.5	0.0	6.1	6.4	0.0	7.0
Lane Grp LOS	B		B	B		B	A		A	A		A
Approach Vol, veh/h		410			247			150			274	
Approach Delay, s/veh		13.2			11.9			6.5			6.9	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	18.0	18.0	26.0	26.0
Change Period (Y+Rc), s	5.7	5.7	5.7	5.7
Max Green Setting (Gmax), s	38.3	38.3	20.3	20.3
Max Q Clear Time (g_c+I1), s	8.9	8.8	6.3	5.4
Green Ext Time (p_c), s	2.7	2.7	1.5	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	121	177	58	8	105	32	47	174	18	27	160	108
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.99		0.98	0.99		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	197.6	178.8	178.8	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	332	353	116	254	332	102	622	932	99	674	582	391
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1193	1379	452	1048	1297	398	1073	1654	175	1109	1033	694
Grp Volume(v), veh/h	132	0	255	9	0	149	51	0	209	29	0	291
Grp Sat Flow(s),veh/h/ln	1193	0	1831	1048	0	1695	1073	0	1829	1109	0	1727
Q Serve(g_s), s	6.5	0.0	7.7	0.5	0.0	4.6	1.7	0.0	3.6	0.9	0.0	5.7
Cycle Q Clear(g_c), s	11.1	0.0	7.7	8.2	0.0	4.6	7.4	0.0	3.6	4.5	0.0	5.7
Prop In Lane	1.00		0.25	1.00		0.23	1.00		0.10	1.00		0.40
Lane Grp Cap(c), veh/h	332	0	468	254	0	434	622	0	1031	674	0	973
V/C Ratio(X)	0.40	0.00	0.54	0.04	0.00	0.34	0.08	0.00	0.20	0.04	0.00	0.30
Avail Cap(c_a), veh/h	439	0	633	348	0	586	622	0	1031	674	0	973
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	20.7	24.2	0.0	19.5	9.3	0.0	6.9	8.0	0.0	7.4
Incr Delay (d2), s/veh	0.8	0.0	1.0	0.1	0.0	0.5	0.3	0.0	0.4	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.9	0.0	3.3	0.1	0.0	1.8	0.4	0.0	1.4	0.2	0.0	2.2
Lane Grp Delay (d), s/veh	24.8	0.0	21.7	24.3	0.0	20.0	9.5	0.0	7.3	8.1	0.0	8.1
Lane Grp LOS	C		C	C		B	A		A	A		A
Approach Vol, veh/h		387			158			260			320	
Approach Delay, s/veh		22.7			20.2			7.8			8.1	
Approach LOS		C			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	22.2	22.2	42.0	42.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	22.2	22.2	36.2	36.2
Max Q Clear Time (g_c+I1), s	13.1	10.2	9.4	7.7
Green Ext Time (p_c), s	1.9	2.2	3.3	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
79: Washington St & Front St

4/21/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	30	125	0	0	0	87	216	2	0	215	53
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		0.88
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	186.3	178.8				197.6	186.3	197.6	197.6	186.3	197.6
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	427	198	522				0	0	0	0	0	0
Arrive On Green	0.35	0.35	0.35				0.97	0.97	0.97	0.00	0.00	0.00
Sat Flow, veh/h	1230	572	1502				0	1844	16		-81092	-20100
Grp Volume(v), veh/h	104	0	136				0	0	237		0	292
Grp Sat Flow(s),veh/h/ln	1801	0	1502				0	0	1860		0	-101191
Q Serve(g_s), s	2.8	0.0	4.5				0.0	0.0	70.0		0.0	0.1
Cycle Q Clear(g_c), s	2.8	0.0	4.5				0.0	0.0	70.0		0.0	0.1
Prop In Lane	0.68		1.00				0.00		0.01			0.20
Lane Grp Cap(c), veh/h	625	0	522				0	0	0		0	-145
V/C Ratio(X)	0.17	0.00	0.26				0.00	0.00	0.00		0.00	-2.02
Avail Cap(c_a), veh/h	625	0	522				0	0	0		0	-29924
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	2.00		1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00		0.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	16.4				0.0	0.0	0.0		0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	1.2				0.0	0.0	0.0		0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	4.5				0.0	0.0	0.0		0.0	0.0
Lane Grp Delay (d), s/veh	16.4	0.0	17.6				0.0	0.0	0.0		0.0	0.0
Lane Grp LOS	B		B									
Approach Vol, veh/h		240						237			292	
Approach Delay, s/veh		17.1						0.0			0.0	
Approach LOS		B						A			A	

Timer												
Assigned Phs		4					5	2			6	
Phs Duration (G+Y+Rc), s		30.1					39.9	39.9			0.0	
Change Period (Y+Rc), s		5.8					5.8	5.8			5.8	
Max Green Setting (Gmax), s		24.3					7.6	34.1			20.7	
Max Q Clear Time (g_c+I1), s		6.5					0.0	72.0			0.0	
Green Ext Time (p_c), s		0.9					0.0	0.0			0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			5.3									
HCM 2010 LOS			A									

Notes

APPENDIX E

UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

2013

AM PEAK HOUR
MID-DAY PEAK HOUR
PM PEAK HOUR

AM PEAK HOUR

HCM Unsignalized Intersection Capacity Analysis
1: Lake Shore Blvd & Peter White Dr

4/21/2014

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	0	0	14	2	0	0	2	19	2	0	10	0
Sign Control		Yield			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	15	2	0	0	2	21	2	0	11	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	37	38	11	52	37	22	11			23		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	37	38	11	52	37	22	11			23		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	100			100		
cM capacity (veh/h)	967	853	1070	932	854	1055	1608			1592		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	15	2	25	11
Volume Left	0	2	2	0
Volume Right	15	0	2	0
cSH	1070	932	1608	1700
Volume to Capacity	0.01	0.00	0.00	0.01
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	8.4	8.9	0.6	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.4	8.9	0.6	0.0
Approach LOS	A	A		

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	12	24	41	29	17	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	26	45	32	18	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	147	26	34	0	-	0
Stage 1	26	-	-	-	-	-
Stage 2	121	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	845	1050	1578	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	820	1050	1578	-	-	-
Mov Capacity-2 Maneuver	820	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	878	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	4.3	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1578	-	960	-	-
HCM Lane V/C Ratio	0.028	-	0.041	-	-
HCM Control Delay (s)	7.348	0	8.9	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.087	-	0.127	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	28	23	22	9	32	18	31	29	21	0	8	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	82	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	25	24	10	35	20	34	32	23	0	9	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	49	0	0	166	172	37	189	174	45
Stage 1	-	-	-	-	-	-	98	98	-	64	64	-
Stage 2	-	-	-	-	-	-	68	74	-	125	110	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1551	-	-	1558	-	-	798	721	1035	771	719	1025
Stage 1	-	-	-	-	-	-	908	814	-	947	842	-
Stage 2	-	-	-	-	-	-	942	833	-	879	804	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1551	-	-	1558	-	-	769	702	1035	713	700	1025
Mov Capacity-2 Maneuver	-	-	-	-	-	-	769	702	-	713	700	-
Stage 1	-	-	-	-	-	-	890	798	-	928	836	-
Stage 2	-	-	-	-	-	-	919	827	-	809	788	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	1.1	9.9	9.4
HCM LOS			A	A

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	769	804	1551	-	-	1558	-	-	754	1025
HCM Lane V/C Ratio	0.029	0.082	0.02	-	-	0.006	-	-	0.015	0.005
HCM Control Delay (s)	9.8	9.9	7.368	0	-	7.325	0	-	9.8	8.5
HCM Lane LOS	A	A	A	A		A	A		A	A
HCM 95th %tile Q(veh)	0.09	0.266	0.06	-	-	0.019	-	-	0.045	0.015

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	42	77	29	41	77	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	67	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	84	32	45	84	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	129	0	196	88
Stage 1	-	-	-	-	88	-
Stage 2	-	-	-	-	108	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1457	-	793	970
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	916	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1457	-	775	970
Mov Capacity-2 Maneuver	-	-	-	-	775	-
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	895	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	9.7
HCM LOS			A

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	775	970	-	-	1457	-
HCM Lane V/C Ratio	0.108	0.063	-	-	0.022	-
HCM Control Delay (s)	10.2	9	-	-	7.525	0
HCM Lane LOS	B	A			A	A
HCM 95th %tile Q(veh)	0.362	0.201	-	-	0.066	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	4	4	40	1	7	1	437	43	8	218	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	4	43	1	8	1	475	47	9	237	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	9.3	14.5	9.9
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	33%	83%	4%
Vol Thru, %	91%	33%	2%	96%
Vol Right, %	9%	33%	15%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	481	12	48	228
LT Vol	437	4	1	218
Through Vol	43	4	7	2
RT Vol	1	4	40	8
Lane Flow Rate	523	13	52	248
Geometry Grp	1	1	1	1
Degree of Util (X)	0.63	0.02	0.083	0.32
Departure Headway (Hd)	4.336	5.569	5.703	4.655
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	831	638	625	771
Service Time	2.363	3.641	3.767	2.691
HCM Lane V/C Ratio	0.629	0.02	0.083	0.322
HCM Control Delay	14.5	8.8	9.3	9.9
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	4.6	0.1	0.3	1.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	2	24	0	3	0	17	205	0	0	141	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	2	26	0	3	0	18	223	0	0	153	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	416	415	155	430	418	223	158	0	0	223	0	0
Stage 1	155	155	-	260	260	-	-	-	-	-	-	-
Stage 2	261	260	-	170	158	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	547	528	891	535	526	817	1422	-	-	1346	-	-
Stage 1	847	769	-	745	693	-	-	-	-	-	-	-
Stage 2	744	693	-	832	767	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	539	521	891	512	519	817	1422	-	-	1346	-	-
Mov Capacity-2 Maneuver	539	521	-	512	519	-	-	-	-	-	-	-
Stage 1	835	769	-	735	683	-	-	-	-	-	-	-
Stage 2	730	683	-	805	767	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	12	0.6	0
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1422	-	-	812	519	1346	-	-
HCM Lane V/C Ratio	0.013	-	-	0.037	0.006	-	-	-
HCM Control Delay (s)	7.565	0	-	9.6	12	0	-	-
HCM Lane LOS	A	A		A	B	A		
HCM 95th %tile Q(veh)	0.039	-	-	0.117	0.019	0	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	6	20	39	67	41	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	22	42	73	45	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	206	48	51	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	782	1021	1555	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	760	1021	1555	-	-	-
Mov Capacity-2 Maneuver	760	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	847	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	2.7	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1555	-	946	-	-
HCM Lane V/C Ratio	0.027	-	0.03	-	-
HCM Control Delay (s)	7.38	0	8.9	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.084	-	0.092	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1

Movement	NBL	NBT	SBT	SBR	NEL	NER
Vol, veh/h	1	92	55	7	15	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	100	60	8	16	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	67	0	-	0	166	64
Stage 1	-	-	-	-	64	-
Stage 2	-	-	-	-	102	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1535	-	-	-	824	1000
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	922	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1535	-	-	-	823	1000
Mov Capacity-2 Maneuver	-	-	-	-	823	-
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	921	-

Approach	NB	SB	NE
HCM Control Delay, s	0.1	0	9.4
HCM LOS			A

Minor Lane / Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	841	1535	-	-	-
HCM Lane V/C Ratio	0.022	0.001	-	-	-
HCM Control Delay (s)	9.4	7.347	0	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.067	0.002	-	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	8	32	7	2	45	2	25	12	3	4	3	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	5	5	2	2	11	2	2	5	2	2	2	2
Mvmt Flow	9	35	8	2	49	2	27	13	3	4	3	9
Number of Lanes	0	2	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	7.6	7.5	7.5	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	62%	33%	0%	4%	27%
Vol Thru, %	30%	67%	70%	92%	20%
Vol Right, %	7%	0%	30%	4%	53%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	24	23	49	15
LT Vol	12	16	16	45	3
Through Vol	3	0	7	2	8
RT Vol	25	8	0	2	4
Lane Flow Rate	43	26	25	53	16
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.051	0.035	0.031	0.062	0.018
Departure Headway (Hd)	4.202	4.883	4.503	4.16	3.877
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	843	731	793	856	910
Service Time	2.273	2.624	2.244	2.209	1.955
HCM Lane V/C Ratio	0.051	0.036	0.032	0.062	0.018
HCM Control Delay	7.5	7.8	7.4	7.5	7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.1	0.2	0.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.3

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	4	21	45	6	29	87
Conflicting Peds, #/hr	10	5	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	19	2	2	10	2
Mvmt Flow	4	23	49	7	32	95

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	220	64	0	0	65	0
Stage 1	62	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Follow-up Headway	3.518	3.471	-	-	2.29	-
Pot Capacity-1 Maneuver	768	955	-	-	1488	-
Stage 1	961	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	741	943	-	-	1486	-
Mov Capacity-2 Maneuver	741	-	-	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	850	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	9.1	0	1.9
HCM LOS	A		

Minor Lane / Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	1486	-	904	-	-
HCM Lane V/C Ratio	0.021	-	0.03	-	-
HCM Control Delay (s)	7.475	0	9.1	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.065	-	0.093	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	42	118	106	47	90	95
Conflicting Peds, #/hr	0	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-5	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	11	2	4	4	3
Mvmt Flow	46	128	115	51	98	103

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	443	145	0	0	169	0
Stage 1	144	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Follow-up Headway	3.518	3.399	-	-	2.236	-
Pot Capacity-1 Maneuver	572	879	-	-	1396	-
Stage 1	883	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	530	876	-	-	1395	-
Mov Capacity-2 Maneuver	530	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	698	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	3.8
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	530	876	1395	-
HCM Lane V/C Ratio	-	-	0.086	0.146	0.07	-
HCM Control Delay (s)	-	-	12.4	9.8	7.775	-
HCM Lane LOS			B	A	A	
HCM 95th %tile Q(veh)	-	-	0.281	0.512	0.226	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	40	49	22	74	18	46	17	10	1	27	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	74	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	43	53	24	80	20	50	18	11	1	29	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	100	0	0	97	0	0	238	283	48	234	300	50
Stage 1	-	-	-	-	-	-	135	135	-	138	138	-
Stage 2	-	-	-	-	-	-	103	148	-	96	162	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	1490	-	-	1494	-	-	696	625	1011	701	611	1008
Stage 1	-	-	-	-	-	-	854	784	-	851	781	-
Stage 2	-	-	-	-	-	-	892	774	-	900	763	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1490	-	-	1494	-	-	627	600	1011	656	586	1008
Mov Capacity-2 Maneuver	-	-	-	-	-	-	627	600	-	656	586	-
Stage 1	-	-	-	-	-	-	834	765	-	831	768	-
Stage 2	-	-	-	-	-	-	815	761	-	848	745	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	1.4	10.9	10.2
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	627	675	1490	-	-	1494	-	-	753
HCM Lane V/C Ratio	0.053	0.068	0.022	-	-	0.016	-	-	0.085
HCM Control Delay (s)	11.1	10.7	7.47	0	-	7.449	0	-	10.2
HCM Lane LOS	B	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.168	0.219	0.067	-	-	0.049	-	-	0.278

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	36	16	6	69	50	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	17	7	75	54	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	57	0	99	28
Stage 1	-	-	-	-	48	-
Stage 2	-	-	-	-	51	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1546	-	889	1041
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	965	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1546	-	885	1041
Mov Capacity-2 Maneuver	-	-	-	-	885	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	960	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	9.3
HCM LOS			A

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	897	-	-	1546	-
HCM Lane V/C Ratio	0.067	-	-	0.004	-
HCM Control Delay (s)	9.3	-	-	7.338	0
HCM Lane LOS	A			A	A
HCM 95th %tile Q(veh)	0.214	-	-	0.013	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	12	36	4	45	1	76	147	1	3	113	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	13	39	4	49	1	83	160	1	3	123	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	485	460	128	486	465	160	133	0	0	161	0	0
Stage 1	134	134	-	326	326	-	-	-	-	-	-	-
Stage 2	351	326	-	160	139	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	492	498	922	466	470	877	1452	-	-	1418	-	-
Stage 1	869	785	-	662	625	-	-	-	-	-	-	-
Stage 2	666	648	-	827	770	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	428	466	922	415	440	877	1452	-	-	1418	-	-
Mov Capacity-2 Maneuver	428	466	-	415	440	-	-	-	-	-	-	-
Stage 1	814	783	-	620	586	-	-	-	-	-	-	-
Stage 2	571	607	-	777	768	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	14.3	2.6	0.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1452	-	-	693	442	1418	-	-
HCM Lane V/C Ratio	0.057	-	-	0.083	0.123	0.002	-	-
HCM Control Delay (s)	7.629	0	-	10.7	14.3	7.545	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.181	-	-	0.271	0.417	0.007	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	1	3	0	4	2	3	45	0	1	17	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	3	0	4	2	3	49	0	1	18	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	81	77	20	79	78	49	21	0	0	49	0	0
Stage 1	22	22	-	55	55	-	-	-	-	-	-	-
Stage 2	59	55	-	24	23	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	907	813	1058	910	812	1020	1595	-	-	1558	-	-
Stage 1	996	877	-	957	849	-	-	-	-	-	-	-
Stage 2	953	849	-	994	876	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	899	811	1058	904	810	1020	1595	-	-	1558	-	-
Mov Capacity-2 Maneuver	899	811	-	904	810	-	-	-	-	-	-	-
Stage 1	994	876	-	955	847	-	-	-	-	-	-	-
Stage 2	944	847	-	989	875	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.2	0.5	0.4
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1595	-	-	953	870	1558	-	-
HCM Lane V/C Ratio	0.002	-	-	0.007	0.007	0.001	-	-
HCM Control Delay (s)	7.262	0	-	8.8	9.2	7.312	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.006	-	-	0.021	0.023	0.002	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	5	6	3	12	2	7	86	0	2	34	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	5	7	3	13	2	8	93	0	2	37	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	157	150	37	156	150	93	37	0	0	93	0	0
Stage 1	41	41	-	109	109	-	-	-	-	-	-	-
Stage 2	116	109	-	47	41	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	809	742	1035	810	742	964	1574	-	-	1501	-	-
Stage 1	974	861	-	896	805	-	-	-	-	-	-	-
Stage 2	889	805	-	967	861	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	793	738	1035	797	738	964	1574	-	-	1501	-	-
Mov Capacity-2 Maneuver	793	738	-	797	738	-	-	-	-	-	-	-
Stage 1	969	860	-	892	801	-	-	-	-	-	-	-
Stage 2	868	801	-	954	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	9.8	0.5	0.4
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1574	-	-	867	769	1501	-	-
HCM Lane V/C Ratio	0.005	-	-	0.015	0.024	0.001	-	-
HCM Control Delay (s)	7.298	0	-	9.2	9.8	7.402	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.015	-	-	0.046	0.074	0.004	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	6	11	3	18	4	16	220	6	3	149	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	12	3	20	4	17	239	7	3	162	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	461	452	166	459	453	242	170	0	0	246	0	0
Stage 1	172	172	-	277	277	-	-	-	-	-	-	-
Stage 2	289	280	-	182	176	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	511	503	878	512	503	797	1407	-	-	1320	-	-
Stage 1	830	756	-	729	681	-	-	-	-	-	-	-
Stage 2	719	679	-	820	753	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	487	494	878	493	494	797	1407	-	-	1320	-	-
Mov Capacity-2 Maneuver	487	494	-	493	494	-	-	-	-	-	-	-
Stage 1	818	754	-	719	671	-	-	-	-	-	-	-
Stage 2	685	669	-	799	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	12.2	0.5	0.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1407	-	-	689	526	1320	-	-
HCM Lane V/C Ratio	0.012	-	-	0.027	0.052	0.002	-	-
HCM Control Delay (s)	7.591	0	-	10.4	12.2	7.734	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.038	-	-	0.083	0.163	0.007	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	13	17	6	31	1	77	176	4	8	135	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	14	18	7	34	1	84	191	4	9	147	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	548	533	153	547	537	193	159	0	0	196	0	0
Stage 1	170	170	-	361	361	-	-	-	-	-	-	-
Stage 2	378	363	-	186	176	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	447	453	893	448	450	849	1420	-	-	1377	-	-
Stage 1	832	758	-	657	626	-	-	-	-	-	-	-
Stage 2	644	625	-	816	753	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	396	420	893	404	417	849	1420	-	-	1377	-	-
Mov Capacity-2 Maneuver	396	420	-	404	417	-	-	-	-	-	-	-
Stage 1	777	753	-	614	585	-	-	-	-	-	-	-
Stage 2	566	584	-	779	748	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	14.5	2.3	0.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1420	-	-	547	420	1377	-	-
HCM Lane V/C Ratio	0.059	-	-	0.074	0.098	0.006	-	-
HCM Control Delay (s)	7.694	0	-	12.1	14.5	7.631	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.188	-	-	0.237	0.325	0.019	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	11	16	15	105	57	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	17	16	114	62	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	213	66	70	0	-	0
Stage 1	66	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	775	998	1531	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	766	998	1531	-	-	-
Mov Capacity-2 Maneuver	766	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0.9	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1531	-	888	-	-
HCM Lane V/C Ratio	0.011	-	0.033	-	-
HCM Control Delay (s)	7.377	0	9.2	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.032	-	0.102	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	9	12	11	111	70	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	13	12	121	76	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	223	78	80	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	145	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	765	983	1518	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	759	983	1518	-	-	-
Mov Capacity-2 Maneuver	759	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	875	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0.7	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1518	-	873	-	-
HCM Lane V/C Ratio	0.008	-	0.026	-	-
HCM Control Delay (s)	7.39	0	9.2	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.024	-	0.08	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	1	5	1	10	2	3	8	4	1	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	1	5	1	11	2	3	9	4	1	9	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	36	32	10	32	30	11	11	0	0	13	0	0
Stage 1	12	12	-	17	17	-	-	-	-	-	-	-
Stage 2	24	20	-	15	13	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	970	861	1071	976	863	1070	1608	-	-	1606	-	-
Stage 1	1009	886	-	1002	881	-	-	-	-	-	-	-
Stage 2	994	879	-	1005	885	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	957	858	1071	968	860	1070	1608	-	-	1606	-	-
Mov Capacity-2 Maneuver	957	858	-	968	860	-	-	-	-	-	-	-
Stage 1	1007	885	-	1000	879	-	-	-	-	-	-	-
Stage 2	978	877	-	998	884	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	9.1	1.4	0.7
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	1003	895	1606	-	-
HCM Lane V/C Ratio	0.002	-	-	0.01	0.016	0.001	-	-
HCM Control Delay (s)	7.243	0	-	8.6	9.1	7.243	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.006	-	-	0.03	0.048	0.002	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	17	2	3	9	1	2	29	2	3	30	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	18	2	3	10	1	2	32	2	3	33	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.2	7.2	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	14%	23%	9%
Vol Thru, %	88%	77%	69%	88%
Vol Right, %	6%	9%	8%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	22	13	34
LT Vol	29	17	9	30
Through Vol	2	2	1	1
RT Vol	2	3	3	3
Lane Flow Rate	36	24	14	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.04	0.027	0.016	0.041
Departure Headway (Hd)	4.004	4.045	4.079	4.028
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	894	883	875	889
Service Time	2.029	2.078	2.115	2.052
HCM Lane V/C Ratio	0.04	0.027	0.016	0.042
HCM Control Delay	7.2	7.2	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0	0.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	9	5	5	14	11	4	217	6	11	179	6
Conflicting Peds, #/hr	0	0	3	3	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	30	-	-	50	-	-	74	-	-	71	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	-2	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	4	2	2	2	2	2	3	2
Mvmt Flow	4	10	5	5	15	12	4	236	7	12	195	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	489	479	211	483	479	252	204	0	0	245	0	0
Stage 1	225	225	-	251	251	-	-	-	-	-	-	-
Stage 2	264	254	-	232	228	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.036	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	608	601	869	456	446	770	1368	-	-	1321	-	-
Stage 1	859	793	-	722	667	-	-	-	-	-	-	-
Stage 2	833	780	-	742	685	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	571	591	860	439	438	761	1358	-	-	1309	-	-
Mov Capacity-2 Maneuver	571	591	-	439	438	-	-	-	-	-	-	-
Stage 1	854	784	-	718	663	-	-	-	-	-	-	-
Stage 2	792	776	-	716	677	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	12.3	0.1	0.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1358	-	-	571	656	439	531	1309	-	-
HCM Lane V/C Ratio	0.003	-	-	0.005	0.025	0.008	0.055	0.009	-	-
HCM Control Delay (s)	7.659	-	-	11.3	10.6	13.3	12.2	7.776	-	-
HCM Lane LOS	A			B	B	B	B	A		
HCM 95th %tile Q(veh)	0.01	-	-	0.015	0.078	0.025	0.173	0.028	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	9	10	31	15	4	11	102	5	2	104	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	11	34	16	4	12	111	5	2	113	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.9	8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	0%	62%	2%
Vol Thru, %	86%	47%	30%	97%
Vol Right, %	4%	53%	8%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	19	50	107
LT Vol	102	9	15	104
Through Vol	5	10	4	1
RT Vol	11	0	31	2
Lane Flow Rate	128	21	54	116
Geometry Grp	1	1	1	1
Degree of Util (X)	0.148	0.024	0.069	0.134
Departure Headway (Hd)	4.145	4.221	4.572	4.159
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	854	853	788	850
Service Time	2.226	2.223	2.573	2.243
HCM Lane V/C Ratio	0.15	0.025	0.069	0.136
HCM Control Delay	8	7.3	7.9	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.1	0.2	0.5

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	26	16	29	2	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	17	32	2	0	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	34	0	-	0	107	33
Stage 1	-	-	-	-	33	-
Stage 2	-	-	-	-	74	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1578	-	-	-	891	1041
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	949	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1578	-	-	-	875	1041
Mov Capacity-2 Maneuver	-	-	-	-	875	-
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	SB
HCM Control Delay, s	4.5	0	8.5
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1578	-	-	-	1041
HCM Lane V/C Ratio	0.018	-	-	-	0.009
HCM Control Delay (s)	7.323	0	-	-	8.5
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.055	-	-	-	0.028

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	0	1	0	16	123	8	2	57	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1	0	17	134	9	2	62	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	252	256	75	252	265	138	88	0	0	142	0	0
Stage 1	79	79	-	173	173	-	-	-	-	-	-	-
Stage 2	173	177	-	79	92	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	701	648	986	701	640	910	1508	-	-	1441	-	-
Stage 1	930	829	-	829	756	-	-	-	-	-	-	-
Stage 2	829	753	-	930	819	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	693	640	986	694	632	910	1508	-	-	1441	-	-
Mov Capacity-2 Maneuver	693	640	-	694	632	-	-	-	-	-	-	-
Stage 1	919	828	-	819	747	-	-	-	-	-	-	-
Stage 2	818	744	-	929	818	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.7	0.8	0.2
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1508	-	-	0	632	1441	-	-
HCM Lane V/C Ratio	0.012	-	-	+	0.002	0.002	-	-
HCM Control Delay (s)	7.415	0	-	0	10.7	7.502	0	-
HCM Lane LOS	A	A		A	B	A	A	
HCM 95th %tile Q(veh)	0.035	-	-	+	0.005	0.005	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	70	1	3	1	0	0	20	82	4	0	45	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	1	3	1	0	0	22	89	4	0	49	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	4	0	0	190	157	3	204	159	0
Stage 1	-	-	-	-	-	-	155	155	-	2	2	-
Stage 2	-	-	-	-	-	-	35	2	-	202	157	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	-	-	-	1618	-	-	770	735	1081	754	733	-
Stage 1	-	-	-	-	-	-	847	769	-	1021	894	-
Stage 2	-	-	-	-	-	-	981	894	-	800	768	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	-	-	-	1618	-	-	-	734	1081	681	732	-
Mov Capacity-2 Maneuver	-	-	-	-	-	-	-	734	-	681	732	-
Stage 1	-	-	-	-	-	-	847	769	-	1021	893	-
Stage 2	-	-	-	-	-	-	926	893	-	704	768	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.2	+	+
HCM LOS			-	-

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	-	-	-	1618	-	-	+
HCM Lane V/C Ratio	+	-	-	-	0.001	-	-	+
HCM Control Delay (s)	+	-	-	-	7.226	0	-	+
HCM Lane LOS	+				A	A		+
HCM 95th %tile Q(veh)	+	-	-	-	0.002	-	-	+

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	11	31	14	8	8	89	320	61	2	187	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	12	34	15	9	9	97	348	66	2	203	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	793	822	209	794	794	381	215	0	0	414	0	0
Stage 1	214	214	-	574	574	-	-	-	-	-	-	-
Stage 2	579	608	-	220	220	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	306	309	831	306	321	666	1355	-	-	1145	-	-
Stage 1	788	725	-	504	503	-	-	-	-	-	-	-
Stage 2	501	486	-	782	721	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	279	286	831	268	298	666	1355	-	-	1145	-	-
Mov Capacity-2 Maneuver	279	286	-	268	298	-	-	-	-	-	-	-
Stage 1	732	724	-	468	467	-	-	-	-	-	-	-
Stage 2	451	451	-	737	720	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	16.9	1.5	0.1
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1355	-	-	388	831	297	666	1145	-	-
HCM Lane V/C Ratio	0.071	-	-	0.071	0.027	0.09	0.009	0.002	-	-
HCM Control Delay (s)	7.861	-	-	15	9.5	18.3	10.5	8.15	-	-
HCM Lane LOS	A			C	A	C	B	A		
HCM 95th %tile Q(veh)	0.23	-	-	0.228	0.083	0.295	0.026	0.006	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	18	4	4	38	55	10	142	8	25	76	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	20	4	4	41	60	11	154	9	27	83	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	373	327	88	334	327	159	92	0	0	163	0	0
Stage 1	142	142	-	180	180	-	-	-	-	-	-	-
Stage 2	231	185	-	154	147	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	584	591	970	620	591	886	1503	-	-	1416	-	-
Stage 1	861	779	-	822	750	-	-	-	-	-	-	-
Stage 2	772	747	-	848	775	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	504	575	970	588	575	886	1503	-	-	1416	-	-
Mov Capacity-2 Maneuver	504	575	-	588	575	-	-	-	-	-	-	-
Stage 1	854	763	-	815	744	-	-	-	-	-	-	-
Stage 2	675	741	-	806	760	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	10.9	0.5	1.7
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1503	-	-	592	719	1416	-	-
HCM Lane V/C Ratio	0.007	-	-	0.051	0.147	0.019	-	-
HCM Control Delay (s)	7.413	0	-	11.4	10.9	7.592	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.022	-	-	0.162	0.512	0.059	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	8	16	1	8	25	27	22	128	9	12	85	15
Conflicting Peds, #/hr	29	0	4	4	0	29	2	0	4	4	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	6	-	-	-2	-	-	5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	2	2	2	2	2	2	2	7	2	9
Mvmt Flow	9	17	1	9	27	29	24	139	10	13	92	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	405	382	134	386	385	177	138	0	0	178	0	0
Stage 1	156	156	-	221	221	-	-	-	-	-	-	-
Stage 2	249	226	-	165	164	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.126	3.318	3.518	4.018	3.318	2.218	-	-	2.263	-	-
Pot Capacity-1 Maneuver	609	580	929	503	483	841	1446	-	-	1368	-	-
Stage 1	876	773	-	726	669	-	-	-	-	-	-	-
Stage 2	798	731	-	792	722	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	531	531	901	462	443	810	1440	-	-	1362	-	-
Mov Capacity-2 Maneuver	531	531	-	462	443	-	-	-	-	-	-	-
Stage 1	838	745	-	690	636	-	-	-	-	-	-	-
Stage 2	720	695	-	762	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.3	1	0.8
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1440	-	-	540	560	1362	-	-
HCM Lane V/C Ratio	0.017	-	-	0.05	0.116	0.01	-	-
HCM Control Delay (s)	7.542	0	-	12	12.3	7.669	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.051	-	-	0.159	0.393	0.029	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	2	12	0	23	4	332	14	8	149	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	-3	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	14	25	2	2	2	11	2	2	2
Mvmt Flow	0	0	2	13	0	25	4	361	15	9	162	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	570	565	163	558	557	368	163	0	0	376	0	0
Stage 1	180	180	-	377	377	-	-	-	-	-	-	-
Stage 2	390	385	-	181	180	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.626	4.225	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	475	477	894	410	396	671	1416	-	-	1182	-	-
Stage 1	847	773	-	608	565	-	-	-	-	-	-	-
Stage 2	677	651	-	786	702	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	453	471	894	405	391	671	1416	-	-	1182	-	-
Mov Capacity-2 Maneuver	453	471	-	405	391	-	-	-	-	-	-	-
Stage 1	844	767	-	606	563	-	-	-	-	-	-	-
Stage 2	649	648	-	778	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	12.1	0.1	0.4
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1416	-	-	894	548	1182	-	-
HCM Lane V/C Ratio	0.003	-	-	0.002	0.069	0.007	-	-
HCM Control Delay (s)	7.55	0	-	9	12.1	8.068	0	-
HCM Lane LOS	A	A		A	B	A	A	
HCM 95th %tile Q(veh)	0.009	-	-	0.007	0.223	0.022	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	13	24	33	4	23	5	25	313	6	6	131	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-3	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	26	36	4	25	5	27	340	7	7	142	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	581	569	155	597	580	343	168	0	0	347	0	0
Stage 1	168	168	-	398	398	-	-	-	-	-	-	-
Stage 2	413	401	-	199	182	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	425	432	891	415	426	700	1410	-	-	1212	-	-
Stage 1	834	759	-	628	603	-	-	-	-	-	-	-
Stage 2	616	601	-	803	749	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	393	419	891	371	413	700	1410	-	-	1212	-	-
Mov Capacity-2 Maneuver	393	419	-	371	413	-	-	-	-	-	-	-
Stage 1	814	754	-	613	589	-	-	-	-	-	-	-
Stage 2	571	587	-	740	745	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	14	0.6	0.3
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1410	-	-	549	435	1212	-	-
HCM Lane V/C Ratio	0.019	-	-	0.139	0.08	0.005	-	-
HCM Control Delay (s)	7.603	0	-	12.6	14	7.986	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.059	-	-	0.479	0.259	0.016	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	3	44	0	0	0	68	490	1	2	215	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	52	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	3	48	0	0	0	74	533	1	2	234	14

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	659	925	124				248	0	0	533	0	0
Stage 1	245	245	-				-	-	-	-	-	-
Stage 2	414	680	-				-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32				2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	397	268	904				1315	-	-	1031	-	-
Stage 1	773	702	-				-	-	-	-	-	-
Stage 2	635	449	-				-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	365	# 0	904				1315	-	-	1031	-	-
Mov Capacity-2 Maneuver	365	# 0	-				-	-	-	-	-	-
Stage 1	771	# 0	-				-	-	-	-	-	-
Stage 2	584	# 0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	1	0.1
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1315	-	-	612	904	1031	-	-
HCM Lane V/C Ratio	0.056	-	-	0.044	0.035	0.002	-	-
HCM Control Delay (s)	7.901	0.1	-	11.2	9.1	8.499	0	-
HCM Lane LOS	A	A		B	A	A	A	
HCM 95th %tile Q(veh)	0.178	-	-	0.137	0.11	0.006	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	34	61	1	0	100	123	6	1	2	55	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	86	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	66	1	0	109	134	7	1	2	60	0	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	266	146	11	179	156	2	22	0	0	3	0	0
Stage 1	130	130	-	15	15	-	-	-	-	-	-	-
Stage 2	136	16	-	164	141	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	687	745	1070	783	736	1082	1593	-	-	1619	-	-
Stage 1	874	789	-	1005	883	-	-	-	-	-	-	-
Stage 2	867	882	-	838	780	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	515	715	1070	704	706	1082	1593	-	-	1619	-	-
Mov Capacity-2 Maneuver	515	715	-	704	706	-	-	-	-	-	-	-
Stage 1	871	760	-	1001	879	-	-	-	-	-	-	-
Stage 2	663	878	-	736	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	10.7	4.8	5.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1593	-	-	630	873	1619	-	-
HCM Lane V/C Ratio	0.004	-	-	0.166	0.278	0.037	-	-
HCM Control Delay (s)	7.269	0	-	11.8	10.7	7.309	-	-
HCM Lane LOS	A	A		B	B	A		
HCM 95th %tile Q(veh)	0.012	-	-	0.59	1.137	0.115	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	76	63	3	0	83	44	2	1	2	33	5	54
Conflicting Peds, #/hr	2	0	3	3	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	4	-	-	-6	-	-	7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	2	3
Mvmt Flow	83	68	3	0	90	48	2	1	2	36	5	59

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	189	121	38	155	149	5	67	0	0	6	0	0
Stage 1	110	110	-	10	10	-	-	-	-	-	-	-
Stage 2	79	11	-	145	139	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Capacity-1 Maneuver	821	801	1041	784	718	1078	1535	-	-	1589	-	-
Stage 1	929	834	-	1009	885	-	-	-	-	-	-	-
Stage 2	954	890	-	831	758	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	691	776	1038	712	695	1074	1535	-	-	1589	-	-
Mov Capacity-2 Maneuver	691	776	-	712	695	-	-	-	-	-	-	-
Stage 1	926	812	-	1004	880	-	-	-	-	-	-	-
Stage 2	817	885	-	740	738	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	10.5	2.9	2.6
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1535	-	-	732	792	1589	-	-
HCM Lane V/C Ratio	0.001	-	-	0.211	0.174	0.023	-	-
HCM Control Delay (s)	7.349	0	-	11.2	10.5	7.318	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.004	-	-	0.793	0.628	0.069	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	68	136	12	11	84	9	3	0	4	12	4	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	148	13	12	91	10	3	0	4	13	4	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	101	0	0	161	0	0	436	427	154	424	429	96
Stage 1	-	-	-	-	-	-	302	302	-	120	120	-
Stage 2	-	-	-	-	-	-	134	125	-	304	309	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1491	-	-	1418	-	-	531	520	892	540	518	960
Stage 1	-	-	-	-	-	-	707	664	-	884	796	-
Stage 2	-	-	-	-	-	-	869	792	-	705	660	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1491	-	-	1418	-	-	492	490	892	513	488	960
Mov Capacity-2 Maneuver	-	-	-	-	-	-	492	490	-	513	488	-
Stage 1	-	-	-	-	-	-	672	631	-	840	789	-
Stage 2	-	-	-	-	-	-	836	785	-	667	627	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.8	10.5	10.5
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	662	1491	-	-	1418	-	-	692
HCM Lane V/C Ratio	0.011	0.05	-	-	0.008	-	-	0.058
HCM Control Delay (s)	10.5	7.54	-	-	7.56	0	-	10.5
HCM Lane LOS	B	A			A	A		B
HCM 95th %tile Q(veh)	0.035	0.156	-	-	0.026	-	-	0.185

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	141	62	27	65	2	123	37	86	0	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	153	67	29	71	2	134	40	93	0	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	73	0	0	221	0	0	320	319	187	384	351	72
Stage 1	-	-	-	-	-	-	187	187	-	130	130	-
Stage 2	-	-	-	-	-	-	133	132	-	254	221	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1527	-	-	1348	-	-	633	598	855	574	573	990
Stage 1	-	-	-	-	-	-	815	745	-	874	789	-
Stage 2	-	-	-	-	-	-	870	787	-	750	720	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1527	-	-	1348	-	-	619	585	855	476	560	990
Mov Capacity-2 Maneuver	-	-	-	-	-	-	619	585	-	476	560	-
Stage 1	-	-	-	-	-	-	815	745	-	874	772	-
Stage 2	-	-	-	-	-	-	846	770	-	632	720	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.2	13.7	10.8
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	679	1527	-	-	1348	-	-	628
HCM Lane V/C Ratio	0.394	-	-	-	0.022	-	-	0.007
HCM Control Delay (s)	13.7	0	-	-	7.73	0	-	10.8
HCM Lane LOS	B	A			A	A		B
HCM 95th %tile Q(veh)	1.88	0	-	-	0.067	-	-	0.021

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	1	104	2	92	1	259	132	73	98	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Yield	Yield	Yield	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	7	-	-	-4	-	-	8	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	33	2	14	2	33	2	2	6	2	6	2	2
Mvmt Flow	1	1	1	113	2	100	1	282	143	79	107	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	332	328	0	491	278	52
Stage 1	-	-	-	0	0	-	278	278	-
Stage 2	-	-	-	332	328	-	213	0	-
Follow-up Headway	-	-	-	3.518	4.054	-	3.554	4.018	3.318
Pot Capacity-1 Maneuver	-	-	-	536	505	-	508	650	1019
Stage 1	-	-	-	-	-	-	742	702	-
Stage 2	-	-	-	588	553	-	-	-	-
Time blocked-Platoon, %		-	-						
Mov Capacity-1 Maneuver	-	-	-	469	505	-	-	650	1019
Mov Capacity-2 Maneuver	-	-	-	469	505	-	-	650	-
Stage 1	-	-	-	-	-	-	742	702	-
Stage 2	-	-	-	499	553	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	+	+
HCM LOS		-	-

Minor Lane / Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	-	-	-	+
HCM Lane V/C Ratio	+	-	-	-	+
HCM Control Delay (s)	+	-	-	-	+
HCM Lane LOS	+				+
HCM 95th %tile Q(veh)	+	-	-	-	+

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	22	4	81	10	3	3	10	205	10	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	24	4	88	11	3	3	11	223	11	13	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	171	275	13	178	164	122	13	0	0	234	0	0
Stage 1	35	35	-	129	129	-	-	-	-	-	-	-
Stage 2	136	240	-	49	35	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	792	632	1067	784	729	929	1606	-	-	1333	-	-
Stage 1	981	866	-	875	789	-	-	-	-	-	-	-
Stage 2	867	707	-	964	866	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	774	626	1067	752	722	929	1606	-	-	1333	-	-
Mov Capacity-2 Maneuver	774	626	-	752	722	-	-	-	-	-	-	-
Stage 1	979	859	-	873	787	-	-	-	-	-	-	-
Stage 2	850	706	-	926	859	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	10.5	0.1	3.5
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1606	-	-	669	753	1333	-	-
HCM Lane V/C Ratio	0.002	-	-	0.042	0.136	0.008	-	-
HCM Control Delay (s)	7.246	0	-	10.6	10.5	7.723	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.006	-	-	0.132	0.468	0.025	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	1	2	4	0	5	0	220	0	7	113	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	2	4	0	5	0	239	0	8	123	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	383	380	126	381	382	239	128	0	0	239	0	0
Stage 1	141	141	-	239	239	-	-	-	-	-	-	-
Stage 2	242	239	-	142	143	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	575	552	924	577	551	800	1458	-	-	1328	-	-
Stage 1	862	780	-	764	708	-	-	-	-	-	-	-
Stage 2	762	708	-	861	779	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	568	549	924	572	548	800	1458	-	-	1328	-	-
Mov Capacity-2 Maneuver	568	549	-	572	548	-	-	-	-	-	-	-
Stage 1	862	775	-	764	708	-	-	-	-	-	-	-
Stage 2	757	708	-	853	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	10.4	0	0.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	666	680	1328	-	-
HCM Lane V/C Ratio	-	-	-	0.008	0.014	0.006	-	-
HCM Control Delay (s)	0	-	-	10.5	10.4	7.726	0	-
HCM Lane LOS	A			B	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.025	0.044	0.017	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	48	79	3	6	137	22	4	36	4	9	8	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	86	3	7	149	24	4	39	4	10	9	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	173	0	0	89	0	0	376	378	88	388	367	161
Stage 1	-	-	-	-	-	-	192	192	-	174	174	-
Stage 2	-	-	-	-	-	-	184	186	-	214	193	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1404	-	-	1506	-	-	581	554	970	571	562	884
Stage 1	-	-	-	-	-	-	810	742	-	828	755	-
Stage 2	-	-	-	-	-	-	818	746	-	788	741	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1404	-	-	1506	-	-	548	530	970	519	537	884
Mov Capacity-2 Maneuver	-	-	-	-	-	-	548	530	-	519	537	-
Stage 1	-	-	-	-	-	-	778	713	-	796	751	-
Stage 2	-	-	-	-	-	-	795	742	-	713	712	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.3	12.1	11.1
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	555	1404	-	-	1506	-	-	620
HCM Lane V/C Ratio	0.086	0.037	-	-	0.004	-	-	0.047
HCM Control Delay (s)	12.1	7.663	0	-	7.401	0	-	11.1
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.282	0.116	-	-	0.013	-	-	0.149

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	25	43	22	7	42	19	99	159	7	11	50	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	47	24	8	46	21	108	173	8	12	54	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	514	485	65	516	492	177	76	0	0	180	0	0
Stage 1	89	89	-	392	392	-	-	-	-	-	-	-
Stage 2	425	396	-	124	100	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	471	482	999	470	478	866	1523	-	-	1396	-	-
Stage 1	918	821	-	633	606	-	-	-	-	-	-	-
Stage 2	607	604	-	880	812	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	395	440	999	394	436	866	1523	-	-	1396	-	-
Mov Capacity-2 Maneuver	395	440	-	394	436	-	-	-	-	-	-	-
Stage 1	845	814	-	583	558	-	-	-	-	-	-	-
Stage 2	501	556	-	802	805	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	13.4	2.8	1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1523	-	-	492	500	1396	-	-
HCM Lane V/C Ratio	0.071	-	-	0.199	0.148	0.009	-	-
HCM Control Delay (s)	7.543	0	-	14.1	13.4	7.601	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.228	-	-	0.734	0.515	0.026	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	1	42	1	2	43	50	959	6	35	386	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	340	-	-	99	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1	46	1	2	47	54	1042	7	38	420	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1134	1661	217	1440	1664	524	434	0	0	1049	0	0
Stage 1	503	503	-	1154	1154	-	-	-	-	-	-	-
Stage 2	631	1158	-	286	510	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	157	96	787	93	96	498	1122	-	-	659	-	-
Stage 1	519	540	-	210	270	-	-	-	-	-	-	-
Stage 2	436	269	-	697	536	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	129	86	787	80	86	498	1122	-	-	659	-	-
Mov Capacity-2 Maneuver	129	86	-	80	86	-	-	-	-	-	-	-
Stage 1	494	509	-	200	257	-	-	-	-	-	-	-
Stage 2	373	256	-	617	505	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	16	0.4	0.9
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1122	-	-	419	377	659	-	-
HCM Lane V/C Ratio	0.048	-	-	0.13	0.133	0.058	-	-
HCM Control Delay (s)	8.372	-	-	14.9	16	10.797	-	-
HCM Lane LOS	A			B	C	B		
HCM 95th %tile Q(veh)	0.153	-	-	0.443	0.454	0.183	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Vol, veh/h	3	0	2	21	0	46	0	143	7	13	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	2	23	0	50	0	155	8	14	72	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	284	263	72	260	259	159	72	0	0	163	0	0
Stage 1	100	100	-	159	159	-	-	-	-	-	-	-
Stage 2	184	163	-	101	100	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	668	642	990	693	645	886	1528	-	-	1416	-	-
Stage 1	906	812	-	843	766	-	-	-	-	-	-	-
Stage 2	818	763	-	905	812	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	625	636	990	686	639	886	1528	-	-	1416	-	-
Mov Capacity-2 Maneuver	625	636	-	686	639	-	-	-	-	-	-	-
Stage 1	906	804	-	843	766	-	-	-	-	-	-	-
Stage 2	772	763	-	894	804	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	9.9	9.9	0	1.2
HCM LOS	A	A		

Minor Lane / Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1528	-	-	812	733	1416	-	-
HCM Lane V/C Ratio	-	-	-	0.09	0.007	0.01	-	-
HCM Control Delay (s)	0	-	-	9.9	9.9	7.568	0	-
HCM Lane LOS	A			A	A	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.295	0.022	0.03	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	33	5	6	110	37	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	5	7	120	40	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	203	70	99	0	-	0
Stage 1	70	-	-	-	-	-
Stage 2	133	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	786	993	1494	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	782	993	1494	-	-	-
Mov Capacity-2 Maneuver	782	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	889	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	9.7	0.4	0
HCM LOS	A		

Minor Lane / Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1494	-	804	-	-
HCM Lane V/C Ratio	0.004	-	0.051	-	-
HCM Control Delay (s)	7.42	0	9.7	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.013	-	0.162	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	18	36	52	7	5	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	39	57	8	5	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	64	0	-	0	138	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	78	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1538	-	-	-	855	1005
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	945	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1538	-	-	-	844	1005
Mov Capacity-2 Maneuver	-	-	-	-	844	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	933	-

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	8.8
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1538	-	-	-	980
HCM Lane V/C Ratio	0.013	-	-	-	0.041
HCM Control Delay (s)	7.371	0	-	-	8.8
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.039	-	-	-	0.128

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.1

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Vol, veh/h	313	88	5	96	28	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	1000	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	6	40	18	28	25
Mvmt Flow	340	96	5	104	30	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	436	0	451	218
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	63	-
Follow-up Headway	-	-	2.6	-	3.78	3.55
Pot Capacity-1 Maneuver	-	-	892	-	452	711
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	874	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	892	-	449	711
Mov Capacity-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	869	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0.4	12.7
HCM LOS			B

Minor Lane / Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	892	-	515
HCM Lane V/C Ratio	-	-	0.006	-	0.091
HCM Control Delay (s)	-	-	9.061	-	12.7
HCM Lane LOS			A		B
HCM 95th %tile Q(veh)	-	-	0.018	-	0.298

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	0	4	6	16	22	12	163	0	0	79	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	84	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	4	7	17	24	13	177	0	0	86	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	313	292	89	294	294	177	91	0	0	177	0	0
Stage 1	89	89	-	203	203	-	-	-	-	-	-	-
Stage 2	224	203	-	91	91	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	640	619	969	658	617	866	1504	-	-	1399	-	-
Stage 1	918	821	-	799	733	-	-	-	-	-	-	-
Stage 2	779	733	-	916	820	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	604	613	969	650	611	866	1504	-	-	1399	-	-
Mov Capacity-2 Maneuver	604	613	-	650	611	-	-	-	-	-	-	-
Stage 1	909	821	-	791	726	-	-	-	-	-	-	-
Stage 2	732	726	-	912	820	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.2	0.5	0
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1504	-	-	770	650	732	1399	-	-
HCM Lane V/C Ratio	0.009	-	-	0.01	0.007	0.059	-	-	-
HCM Control Delay (s)	7.415	0	-	9.7	10.6	10.2	0	-	-
HCM Lane LOS	A	A		A	B	B	A		
HCM 95th %tile Q(veh)	0.026	-	-	0.03	0.02	0.189	0	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	42	15	36	1	8	6	48	425	13	12	236	38
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	108	-	-	60	-	-	120	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	2	2	14	18	2	2	4	2	2	3	7
Mvmt Flow	46	16	39	1	9	7	52	462	14	13	257	41

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	886	885	280	906	899	472	299	0	0	477	0	0
Stage 1	304	304	-	574	574	-	-	-	-	-	-	-
Stage 2	582	581	-	332	325	-	-	-	-	-	-	-
Follow-up Headway	3.644	4.018	3.318	3.626	4.162	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	251	284	759	245	262	592	1262	-	-	1085	-	-
Stage 1	676	663	-	483	478	-	-	-	-	-	-	-
Stage 2	475	500	-	657	621	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	231	268	756	212	248	590	1259	-	-	1083	-	-
Mov Capacity-2 Maneuver	231	268	-	212	248	-	-	-	-	-	-	-
Stage 1	647	654	-	463	458	-	-	-	-	-	-	-
Stage 2	441	479	-	599	613	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.1	16.8	0.8	0.4
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1259	-	-	231	396	212	326	1083	-	-
HCM Lane V/C Ratio	0.041	-	-	0.132	0.178	0.003	0.048	0.012	-	-
HCM Control Delay (s)	7.983	-	-	22.9	16.1	22	16.6	8.365	-	-
HCM Lane LOS	A			C	C	C	C	A		
HCM 95th %tile Q(veh)	0.13	-	-	0.447	0.641	0.01	0.15	0.037	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	5	8	12	4	28	24	498	21	54	160	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	6	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	5	9	13	4	30	26	541	23	59	174	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	625	916	96	812	914	282	191	0	0	564	0	0
Stage 1	300	300	-	605	605	-	-	-	-	-	-	-
Stage 2	325	616	-	207	309	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	369	271	942	271	272	715	1380	-	-	1004	-	-
Stage 1	684	664	-	451	486	-	-	-	-	-	-	-
Stage 2	661	480	-	776	658	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	324	246	942	245	247	715	1380	-	-	1004	-	-
Mov Capacity-2 Maneuver	324	246	-	245	247	-	-	-	-	-	-	-
Stage 1	665	620	-	438	472	-	-	-	-	-	-	-
Stage 2	609	467	-	712	615	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.2	14.6	0.4	2.2
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1380	-	-	380	422	1004	-	-
HCM Lane V/C Ratio	0.019	-	-	0.072	0.113	0.058	-	-
HCM Control Delay (s)	7.659	0.1	-	15.2	14.6	8.808	0.2	-
HCM Lane LOS	A	A		C	B	A	A	
HCM 95th %tile Q(veh)	0.058	-	-	0.23	0.38	0.186	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	49	0	19	1	0	3	25	429	0	3	160	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	244	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	0	21	1	0	3	27	466	0	3	174	66

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	502	735	120	614	768	233	240	0	0	466	0	0
Stage 1	214	214	-	521	521	-	-	-	-	-	-	-
Stage 2	288	521	-	93	247	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	452	345	909	376	330	769	1324	-	-	1092	-	-
Stage 1	768	724	-	507	530	-	-	-	-	-	-	-
Stage 2	695	530	-	904	701	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	439	334	909	359	320	769	1324	-	-	1092	-	-
Mov Capacity-2 Maneuver	439	334	-	359	320	-	-	-	-	-	-	-
Stage 1	746	722	-	493	515	-	-	-	-	-	-	-
Stage 2	673	515	-	881	699	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	11.1	0.5	0.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1324	-	-	439	909	598	1092	-	-
HCM Lane V/C Ratio	0.021	-	-	0.121	0.023	0.007	0.003	-	-
HCM Control Delay (s)	7.776	0.1	-	14.3	9.1	11.1	8.307	0	-
HCM Lane LOS	A	A		B	A	B	A	A	
HCM 95th %tile Q(veh)	0.063	-	-	0.411	0.07	0.022	0.009	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	47	79	34	23	24	23	27	375	58	5	128	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	5	8	12	2	2	2	2	8	2	15	19
Mvmt Flow	51	86	37	25	26	25	29	408	63	5	139	13
Number of Lanes	1	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	10.9	10.2	12.2	10.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	68%	0%	70%	0%	51%	0%	100%	78%
Vol Right, %	0%	0%	32%	0%	30%	0%	49%	0%	0%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	250	183	47	113	23	47	5	85	55
LT Vol	0	250	125	0	79	0	24	0	85	43
Through Vol	0	0	58	0	34	0	23	0	0	12
RT Vol	27	0	0	47	0	23	0	5	0	0
Lane Flow Rate	29	272	199	51	123	25	51	5	93	59
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.052	0.443	0.318	0.101	0.219	0.052	0.092	0.011	0.174	0.11
Departure Headway (Hd)	6.374	5.869	5.748	7.106	6.429	7.52	6.504	7.036	6.753	6.667
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	562	614	625	504	558	476	550	508	531	537
Service Time	4.112	3.607	3.486	4.854	4.177	5.277	4.261	4.786	4.503	4.417
HCM Lane V/C Ratio	0.052	0.443	0.318	0.101	0.22	0.053	0.093	0.01	0.175	0.11
HCM Control Delay	9.5	13.2	11.2	10.7	11	10.7	9.9	9.9	10.9	10.2
HCM Lane LOS	A	B	B	B	B	B	A	A	B	B
HCM 95th-tile Q	0.2	2.3	1.4	0.3	0.8	0.2	0.3	0	0.6	0.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	0	0	4	0	137	0	320	10	73	97	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	42	45	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	5	-	-	1	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	2	2	2	2	6	2	3	13	38
Mvmt Flow	1	0	0	4	0	149	0	348	11	79	105	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	440	625	57	566	619	183	106	0	0	360	0	0
Stage 1	265	265	-	354	354	-	-	-	-	-	-	-
Stage 2	175	360	-	212	265	-	-	-	-	-	-	-
Follow-up Headway	3.62	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.23	-	-
Pot Capacity-1 Maneuver	514	444	1002	348	339	807	1483	-	-	1188	-	-
Stage 1	721	719	-	576	570	-	-	-	-	-	-	-
Stage 2	805	664	-	726	639	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	396	414	999	329	316	804	1479	-	-	1185	-	-
Mov Capacity-2 Maneuver	396	414	-	329	316	-	-	-	-	-	-	-
Stage 1	720	671	-	575	569	-	-	-	-	-	-	-
Stage 2	654	663	-	676	596	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	10.7	0	3.5
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1479	-	-	396	0	329	793	1185	-	-
HCM Lane V/C Ratio	-	-	-	0.003	+	0.009	0.19	0.067	-	-
HCM Control Delay (s)	0	-	-	14.1	0	16	10.6	8.256	-	-
HCM Lane LOS	A			B	A	C	B	A		
HCM 95th %tile Q(veh)	0	-	-	0.008	+	0.027	0.696	0.215	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	289	94	79	211	2	20	0	60	1	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Yield	Yield	Yield
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	314	102	86	229	2	22	0	65	1	2	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	232	0	0	416	0	0	769	770	365
Stage 1	-	-	-	-	-	-	367	367	-
Stage 2	-	-	-	-	-	-	402	403	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1336	-	-	1143	-	-	318	331	680
Stage 1	-	-	-	-	-	-	653	622	-
Stage 2	-	-	-	-	-	-	625	600	-
Time blocked-Platoon, %		-	-		-	-			
Mov Capacity-1 Maneuver	1336	-	-	1143	-	-	297	302	680
Mov Capacity-2 Maneuver	-	-	-	-	-	-	297	302	-
Stage 1	-	-	-	-	-	-	652	621	-
Stage 2	-	-	-	-	-	-	571	548	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	13.4
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	514	1336	-	-	1143	-	-
HCM Lane V/C Ratio	0.169	0.001	-	-	0.075	-	-
HCM Control Delay (s)	13.4	7.697	0	-	8.405	0	-
HCM Lane LOS	B	A	A		A	A	
HCM 95th %tile Q(veh)	0.604	0.002	-	-	0.243	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	78	11	2	217	116	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	85	12	2	236	126	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	383	143	161	0	-	0
Stage 1	143	-	-	-	-	-
Stage 2	240	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	620	905	1418	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	619	905	1418	-	-	-
Mov Capacity-2 Maneuver	619	-	-	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	798	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1418	-	644	-	-
HCM Lane V/C Ratio	0.002	-	0.15	-	-
HCM Control Delay (s)	7.543	0	11.6	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.005	-	0.526	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	4	7	3	2	9	20	265	3	10	165	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	4	8	3	2	10	22	288	3	11	179	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	546	542	185	546	546	290	191	0	0	291	0	0
Stage 1	207	207	-	333	333	-	-	-	-	-	-	-
Stage 2	339	335	-	213	213	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	448	447	857	448	445	749	1383	-	-	1271	-	-
Stage 1	795	731	-	681	644	-	-	-	-	-	-	-
Stage 2	676	643	-	789	726	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	431	434	857	431	432	749	1383	-	-	1271	-	-
Mov Capacity-2 Maneuver	431	434	-	431	432	-	-	-	-	-	-	-
Stage 1	780	724	-	668	632	-	-	-	-	-	-	-
Stage 2	652	631	-	770	719	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	11.2	0.5	0.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1383	-	-	575	593	1271	-	-
HCM Lane V/C Ratio	0.016	-	-	0.026	0.026	0.009	-	-
HCM Control Delay (s)	7.645	0	-	11.4	11.2	7.857	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.048	-	-	0.081	0.079	0.026	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	13	15	0	83	71	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	16	0	90	77	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	167	77	77	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	90	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	823	984	1522	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	823	984	1522	-	-	-
Mov Capacity-2 Maneuver	823	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	934	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1522	-	902	-	-
HCM Lane V/C Ratio	-	-	0.034	-	-
HCM Control Delay (s)	0	-	9.1	-	-
HCM Lane LOS	A		A		
HCM 95th %tile Q(veh)	0	-	0.105	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

MID-DAY PEAK HOUR

HCM Unsignalized Intersection Capacity Analysis
1: Lake Shore Blvd & Peter White Dr

4/24/2014

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	2	0	15	5	0	0	15	108	1	0	78	2
Sign Control		Yield			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	0	16	5	0	0	16	117	1	0	85	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	236	237	86	253	238	118	87			118		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	236	237	86	253	238	118	87			118		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	99	100	100	99			100		
cM capacity (veh/h)	712	657	973	683	656	934	1509			1470		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	18	5	135	87
Volume Left	2	5	16	0
Volume Right	16	0	1	2
cSH	933	683	1509	1700
Volume to Capacity	0.02	0.01	0.01	0.05
Queue Length 95th (ft)	2	1	1	0
Control Delay (s)	8.9	10.3	1.0	0.0
Lane LOS	A	B	A	
Approach Delay (s)	8.9	10.3	1.0	0.0
Approach LOS	A	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	23.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	34	29	44	104	52	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	32	48	113	57	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	297	88	118	0	-	0
Stage 1	88	-	-	-	-	-
Stage 2	209	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	694	970	1470	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	670	970	1470	-	-	-
Mov Capacity-2 Maneuver	670	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	2.2	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1470	-	781	-	-
HCM Lane V/C Ratio	0.033	-	0.088	-	-
HCM Control Delay (s)	7.531	0	10.1	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.101	-	0.287	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	27	41	36	29	8	39	20	35	5	25	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	82	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	29	45	39	32	9	42	22	38	5	27	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	40	0	0	74	0	0	206	196	52	222	214	36
Stage 1	-	-	-	-	-	-	78	78	-	114	114	-
Stage 2	-	-	-	-	-	-	128	118	-	108	100	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1570	-	-	1526	-	-	752	699	1016	734	684	1037
Stage 1	-	-	-	-	-	-	931	830	-	891	801	-
Stage 2	-	-	-	-	-	-	876	798	-	897	812	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1570	-	-	1526	-	-	701	675	1016	671	660	1037
Mov Capacity-2 Maneuver	-	-	-	-	-	-	701	675	-	671	660	-
Stage 1	-	-	-	-	-	-	923	823	-	883	780	-
Stage 2	-	-	-	-	-	-	814	777	-	833	805	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	3.7	10	10.1
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	701	823	1570	-	-	1526	-	-	689	1037
HCM Lane V/C Ratio	0.04	0.09	0.008	-	-	0.026	-	-	0.053	0.008
HCM Control Delay (s)	10.4	9.8	7.312	0	-	7.421	0	-	10.5	8.5
HCM Lane LOS	B	A	A	A		A	A		B	A
HCM 95th %tile Q(veh)	0.126	0.295	0.025	-	-	0.079	-	-	0.168	0.023

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	42	83	72	60	91	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	67	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	90	78	65	99	73

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	136	0	313	91
Stage 1	-	-	-	-	91	-
Stage 2	-	-	-	-	222	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1448	-	680	967
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	815	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1448	-	642	967
Mov Capacity-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	769	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.2	10.5
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	642	967	-	-	1448	-
HCM Lane V/C Ratio	0.154	0.075	-	-	0.054	-
HCM Control Delay (s)	11.6	9	-	-	7.628	0
HCM Lane LOS	B	A			A	A
HCM 95th %tile Q(veh)	0.542	0.244	-	-	0.171	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	3	1	59	1	12	3	363	87	14	348	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	3	1	64	1	13	3	395	95	15	378	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	9.9	14.6	12.7
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	20%	82%	4%
Vol Thru, %	80%	60%	1%	96%
Vol Right, %	19%	20%	17%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	453	5	72	364
LT Vol	363	3	1	348
Through Vol	87	1	12	2
RT Vol	3	1	59	14
Lane Flow Rate	492	5	78	396
Geometry Grp	1	1	1	1
Degree of Util (X)	0.616	0.009	0.129	0.517
Departure Headway (Hd)	4.502	6.064	5.921	4.704
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	594	599	764
Service Time	2.551	4.064	4.015	2.759
HCM Lane V/C Ratio	0.617	0.008	0.13	0.518
HCM Control Delay	14.6	9.1	9.9	12.7
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	4.3	0	0.4	3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	8	48	3	6	1	32	364	0	1	326	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	9	52	3	7	1	35	396	0	1	354	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	828	824	357	855	827	396	360	0	0	396	0	0
Stage 1	359	359	-	465	465	-	-	-	-	-	-	-
Stage 2	469	465	-	390	362	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	290	308	687	278	307	653	1199	-	-	1163	-	-
Stage 1	659	627	-	578	563	-	-	-	-	-	-	-
Stage 2	575	563	-	634	625	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	276	296	687	244	295	653	1199	-	-	1163	-	-
Mov Capacity-2 Maneuver	276	296	-	244	295	-	-	-	-	-	-	-
Stage 1	635	626	-	557	542	-	-	-	-	-	-	-
Stage 2	546	542	-	577	624	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	17.8	0.7	0
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1199	-	-	496	293	1163	-	-
HCM Lane V/C Ratio	0.029	-	-	0.145	0.037	0.001	-	-
HCM Control Delay (s)	8.092	0	-	13.5	17.8	8.098	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.09	-	-	0.503	0.115	0.003	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	25	53	50	131	82	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	58	54	142	89	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	345	94	99	0	-	0
Stage 1	94	-	-	-	-	-
Stage 2	251	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	652	963	1494	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	627	963	1494	-	-	-
Mov Capacity-2 Maneuver	627	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	2.1	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1494	-	822	-	-
HCM Lane V/C Ratio	0.036	-	0.103	-	-
HCM Control Delay (s)	7.501	0	9.9	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.113	-	0.344	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.2

Movement	NBL	NBT	SBT	SBR	NEL	NER
Vol, veh/h	5	148	113	23	33	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	161	123	25	36	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	148	0	-	0	307	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	172	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1434	-	-	-	685	914
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	858	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1434	-	-	-	682	914
Mov Capacity-2 Maneuver	-	-	-	-	682	-
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	855	-

Approach	NB	SB	NE
HCM Control Delay, s	0.2	0	10.5
HCM LOS			B

Minor Lane / Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	687	1434	-	-	-
HCM Lane V/C Ratio	0.054	0.004	-	-	-
HCM Control Delay (s)	10.5	7.52	0	-	-
HCM Lane LOS	B	A	A		
HCM 95th %tile Q(veh)	0.17	0.011	-	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	108	21	3	75	1	18	12	7	3	10	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	5	5	2	2	11	2	2	5	2	2	2	2
Mvmt Flow	25	117	23	3	82	1	20	13	8	3	11	32
Number of Lanes	0	2	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.2	7.9	7.8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	49%	30%	0%	4%	7%
Vol Thru, %	32%	70%	72%	95%	24%
Vol Right, %	19%	0%	28%	1%	69%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	77	75	79	42
LT Vol	12	54	54	75	10
Through Vol	7	0	21	1	29
RT Vol	18	23	0	3	3
Lane Flow Rate	40	84	82	86	46
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.051	0.115	0.104	0.105	0.053
Departure Headway (Hd)	4.554	4.931	4.585	4.407	4.167
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	790	721	774	816	863
Service Time	2.56	2.703	2.356	2.418	2.173
HCM Lane V/C Ratio	0.051	0.117	0.106	0.105	0.053
HCM Control Delay	7.8	8.4	7.9	7.9	7.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.3	0.4	0.2

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.5

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	19	73	100	9	58	139
Conflicting Peds, #/hr	10	5	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	19	2	2	10	2
Mvmt Flow	21	79	109	10	63	151

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	401	126	0	0	128	0
Stage 1	124	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Follow-up Headway	3.518	3.471	-	-	2.29	-
Pot Capacity-1 Maneuver	605	881	-	-	1410	-
Stage 1	902	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	568	870	-	-	1408	-
Mov Capacity-2 Maneuver	568	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	731	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	10.3	0	2.3
HCM LOS	B		

Minor Lane / Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	1408	-	784	-	-
HCM Lane V/C Ratio	0.045	-	0.128	-	-
HCM Control Delay (s)	7.677	0	10.3	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.141	-	0.436	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	62	229	201	78	211	199
Conflicting Peds, #/hr	0	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-5	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	11	2	4	4	3
Mvmt Flow	67	249	218	85	229	216

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	939	265	0	0	306	0
Stage 1	264	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Follow-up Headway	3.518	3.399	-	-	2.236	-
Pot Capacity-1 Maneuver	293	752	-	-	1243	-
Stage 1	780	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	238	750	-	-	1242	-
Mov Capacity-2 Maneuver	238	-	-	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	412	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	4.4
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	238	750	1242	-
HCM Lane V/C Ratio	-	-	0.283	0.332	0.185	-
HCM Control Delay (s)	-	-	26	12.2	8.554	-
HCM Lane LOS			D	B	A	
HCM 95th %tile Q(veh)	-	-	1.126	1.456	0.676	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	57	85	145	48	119	16	106	28	59	7	44	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	74	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	92	158	52	129	17	115	30	64	8	48	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	147	0	0	250	0	0	488	546	125	427	616	73
Stage 1	-	-	-	-	-	-	295	295	-	242	242	-
Stage 2	-	-	-	-	-	-	193	251	-	185	374	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	1432	-	-	1313	-	-	463	444	902	512	404	974
Stage 1	-	-	-	-	-	-	689	668	-	740	704	-
Stage 2	-	-	-	-	-	-	790	698	-	799	616	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1432	-	-	1313	-	-	369	403	902	417	367	974
Mov Capacity-2 Maneuver	-	-	-	-	-	-	369	403	-	417	367	-
Stage 1	-	-	-	-	-	-	654	634	-	702	674	-
Stage 2	-	-	-	-	-	-	668	668	-	671	585	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	2.1	15.3	13.6
HCM LOS			C	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	369	530	1432	-	-	1313	-	-	522
HCM Lane V/C Ratio	0.208	0.251	0.043	-	-	0.04	-	-	0.198
HCM Control Delay (s)	17.3	14.1	7.628	0.1	-	7.855	0.1	-	13.6
HCM Lane LOS	C	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.772	0.985	0.136	-	-	0.124	-	-	0.73

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	115	19	9	124	60	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	125	21	10	135	65	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	146	0	222	73
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	87	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1434	-	746	974
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	926	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1434	-	740	974
Mov Capacity-2 Maneuver	-	-	-	-	740	-
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	919	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	10.1
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	787	-	-	1434	-
HCM Lane V/C Ratio	0.11	-	-	0.007	-
HCM Control Delay (s)	10.1	-	-	7.528	0
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.371	-	-	0.021	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	18	103	5	24	10	74	231	10	8	272	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	20	112	5	26	11	80	251	11	9	296	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	764	751	310	810	759	257	325	0	0	262	0	0
Stage 1	328	328	-	417	417	-	-	-	-	-	-	-
Stage 2	436	423	-	393	342	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	321	340	730	273	309	771	1235	-	-	1302	-	-
Stage 1	685	647	-	585	564	-	-	-	-	-	-	-
Stage 2	599	588	-	605	614	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	276	312	730	206	283	771	1235	-	-	1302	-	-
Mov Capacity-2 Maneuver	276	312	-	206	283	-	-	-	-	-	-	-
Stage 1	633	642	-	541	521	-	-	-	-	-	-	-
Stage 2	518	543	-	493	609	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	18	1.9	0.2
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1235	-	-	571	320	1302	-	-
HCM Lane V/C Ratio	0.065	-	-	0.244	0.132	0.007	-	-
HCM Control Delay (s)	8.118	0	-	13.3	18	7.784	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.209	-	-	0.95	0.452	0.02	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	1	4	0	2	4	6	32	0	2	36	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	4	0	2	4	7	35	0	2	39	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	95	92	40	95	93	35	40	0	0	35	0	0
Stage 1	44	44	-	48	48	-	-	-	-	-	-	-
Stage 2	51	48	-	47	45	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	888	798	1031	888	797	1038	1570	-	-	1576	-	-
Stage 1	970	858	-	965	855	-	-	-	-	-	-	-
Stage 2	962	855	-	967	857	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	878	793	1031	879	792	1038	1570	-	-	1576	-	-
Mov Capacity-2 Maneuver	878	793	-	879	792	-	-	-	-	-	-	-
Stage 1	965	857	-	960	851	-	-	-	-	-	-	-
Stage 2	951	851	-	961	856	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	8.9	1.2	0.4
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1570	-	-	944	941	1576	-	-
HCM Lane V/C Ratio	0.004	-	-	0.008	0.007	0.001	-	-
HCM Control Delay (s)	7.303	0	-	8.8	8.9	7.287	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.013	-	-	0.024	0.021	0.004	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	4	10	1	7	2	12	114	6	0	46	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	4	11	1	8	2	13	124	7	0	50	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	208	207	50	211	203	127	50	0	0	130	0	0
Stage 1	50	50	-	153	153	-	-	-	-	-	-	-
Stage 2	158	157	-	58	50	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	749	690	1018	746	693	923	1557	-	-	1455	-	-
Stage 1	963	853	-	849	771	-	-	-	-	-	-	-
Stage 2	844	768	-	954	853	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	736	684	1018	729	687	923	1557	-	-	1455	-	-
Mov Capacity-2 Maneuver	736	684	-	729	687	-	-	-	-	-	-	-
Stage 1	954	853	-	841	764	-	-	-	-	-	-	-
Stage 2	826	761	-	939	853	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	10	0.7	0
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1557	-	-	870	728	1455	-	-
HCM Lane V/C Ratio	0.008	-	-	0.02	0.015	-	-	-
HCM Control Delay (s)	7.332	0	-	9.2	10	0	-	-
HCM Lane LOS	A	A		A	B	A		
HCM 95th %tile Q(veh)	0.025	-	-	0.061	0.045	0	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	4	18	2	13	10	45	302	9	5	370	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	4	20	2	14	11	49	328	10	5	402	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	865	858	411	865	861	333	420	0	0	338	0	0
Stage 1	422	422	-	431	431	-	-	-	-	-	-	-
Stage 2	443	436	-	434	430	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	274	294	641	274	293	709	1139	-	-	1221	-	-
Stage 1	609	588	-	603	583	-	-	-	-	-	-	-
Stage 2	594	580	-	600	583	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	248	277	641	251	276	709	1139	-	-	1221	-	-
Mov Capacity-2 Maneuver	248	277	-	251	276	-	-	-	-	-	-	-
Stage 1	577	585	-	571	552	-	-	-	-	-	-	-
Stage 2	540	549	-	574	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	15.8	1	0.1
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1139	-	-	458	361	1221	-	-
HCM Lane V/C Ratio	0.043	-	-	0.059	0.075	0.004	-	-
HCM Control Delay (s)	8.302	0	-	13.4	15.8	7.962	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.134	-	-	0.189	0.243	0.013	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	14	26	9	46	22	49	209	17	18	280	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	15	28	10	50	24	53	227	18	20	304	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	733	705	314	717	705	236	323	0	0	246	0	0
Stage 1	353	353	-	343	343	-	-	-	-	-	-	-
Stage 2	380	352	-	374	362	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	336	361	726	345	361	803	1237	-	-	1320	-	-
Stage 1	664	631	-	672	637	-	-	-	-	-	-	-
Stage 2	642	632	-	647	625	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	274	336	726	304	336	803	1237	-	-	1320	-	-
Mov Capacity-2 Maneuver	274	336	-	304	336	-	-	-	-	-	-	-
Stage 1	631	619	-	638	605	-	-	-	-	-	-	-
Stage 2	543	600	-	595	613	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	16.5	1.4	0.4
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1237	-	-	470	397	1320	-	-
HCM Lane V/C Ratio	0.043	-	-	0.104	0.211	0.015	-	-
HCM Control Delay (s)	8.041	0	-	13.5	16.5	7.768	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.135	-	-	0.346	0.786	0.045	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	8	12	11	165	167	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	13	12	179	182	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	391	188	195	0	-	0
Stage 1	188	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	613	854	1378	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	607	854	1378	-	-	-
Mov Capacity-2 Maneuver	607	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.5	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1378	-	734	-	-
HCM Lane V/C Ratio	0.009	-	0.03	-	-
HCM Control Delay (s)	7.635	0	10.1	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.026	-	0.091	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	13	13	15	162	169	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	14	16	176	184	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	399	190	196	0	-	0
Stage 1	190	-	-	-	-	-
Stage 2	209	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	607	852	1377	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	599	852	1377	-	-	-
Mov Capacity-2 Maneuver	599	-	-	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.6	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1377	-	703	-	-
HCM Lane V/C Ratio	0.012	-	0.04	-	-
HCM Control Delay (s)	7.646	0	10.3	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.036	-	0.125	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	15	4	5	14	2	2	14	4	3	10	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	16	4	5	15	2	2	15	4	3	11	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	50	44	13	52	44	17	15	0	0	20	0	0
Stage 1	20	20	-	22	22	-	-	-	-	-	-	-
Stage 2	30	24	-	30	22	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	950	848	1067	947	848	1062	1603	-	-	1596	-	-
Stage 1	999	879	-	996	877	-	-	-	-	-	-	-
Stage 2	987	875	-	987	877	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	933	845	1067	927	845	1062	1603	-	-	1596	-	-
Mov Capacity-2 Maneuver	933	845	-	927	845	-	-	-	-	-	-	-
Stage 1	998	877	-	995	876	-	-	-	-	-	-	-
Stage 2	967	874	-	963	875	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	9.2	0.7	1.3
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1603	-	-	890	881	1596	-	-
HCM Lane V/C Ratio	0.001	-	-	0.027	0.026	0.002	-	-
HCM Control Delay (s)	7.249	0	-	9.2	9.2	7.26	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.004	-	-	0.083	0.08	0.006	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	15	4	2	24	3	6	32	9	6	34	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	16	4	2	26	3	7	35	10	7	37	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.3	7.3	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	17%	7%	14%
Vol Thru, %	68%	65%	83%	77%
Vol Right, %	19%	17%	10%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	23	29	44
LT Vol	32	15	24	34
Through Vol	9	4	3	4
RT Vol	6	4	2	6
Lane Flow Rate	51	25	32	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.056	0.028	0.036	0.054
Departure Headway (Hd)	3.979	4.06	4.076	4.043
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	897	876	873	883
Service Time	2.016	2.11	2.124	2.08
HCM Lane V/C Ratio	0.057	0.029	0.037	0.054
HCM Control Delay	7.3	7.2	7.3	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.1	0.2

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	17	8	7	18	20	2	237	11	22	253	9
Conflicting Peds, #/hr	0	0	3	3	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	30	-	-	50	-	-	74	-	-	71	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	-2	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	4	2	2	2	2	2	3	2
Mvmt Flow	4	18	9	8	20	22	2	258	12	24	275	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	623	608	293	615	607	277	288	0	0	273	0	0
Stage 1	331	331	-	271	271	-	-	-	-	-	-	-
Stage 2	292	277	-	344	336	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.036	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	526	538	796	364	369	744	1274	-	-	1290	-	-
Stage 1	790	747	-	702	652	-	-	-	-	-	-	-
Stage 2	815	770	-	634	604	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	476	524	788	341	360	735	1264	-	-	1278	-	-
Mov Capacity-2 Maneuver	476	524	-	341	360	-	-	-	-	-	-	-
Stage 1	787	731	-	699	649	-	-	-	-	-	-	-
Stage 2	759	767	-	595	591	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	13.5	0.1	0.6
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1264	-	-	476	580	341	480	1278	-	-
HCM Lane V/C Ratio	0.002	-	-	0.006	0.049	0.015	0.091	0.019	-	-
HCM Control Delay (s)	7.853	-	-	12.6	11.5	15.7	13.3	7.871	-	-
HCM Lane LOS	A			B	B	C	B	A		
HCM 95th %tile Q(veh)	0.005	-	-	0.018	0.155	0.045	0.3	0.057	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	25	12	47	16	5	19	138	11	2	117	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	27	13	51	17	5	21	150	12	2	127	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.3	8.6	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	14%	69%	2%
Vol Thru, %	82%	58%	24%	96%
Vol Right, %	7%	28%	7%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	43	68	122
LT Vol	138	25	16	117
Through Vol	11	12	5	3
RT Vol	19	6	47	2
Lane Flow Rate	183	47	74	133
Geometry Grp	1	1	1	1
Degree of Util (X)	0.221	0.06	0.098	0.162
Departure Headway (Hd)	4.354	4.597	4.793	4.411
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	827	780	749	814
Service Time	2.37	2.621	2.817	2.429
HCM Lane V/C Ratio	0.221	0.06	0.099	0.163
HCM Control Delay	8.6	7.9	8.3	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.2	0.3	0.6

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	34	42	36	4	11	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	46	39	4	12	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	43	0	-	0	161	41
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	120	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1566	-	-	-	830	1030
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	905	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1566	-	-	-	810	1030
Mov Capacity-2 Maneuver	-	-	-	-	810	-
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	883	-

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	9.1
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1566	-	-	-	902
HCM Lane V/C Ratio	0.024	-	-	-	0.025
HCM Control Delay (s)	7.354	0	-	-	9.1
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.072	-	-	-	0.078

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	5	2	0	5	145	4	0	121	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	5	2	0	5	158	4	0	132	51

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	329	330	157	328	354	160	183	0	0	162	0	0
Stage 1	157	157	-	171	171	-	-	-	-	-	-	-
Stage 2	172	173	-	157	183	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	624	589	889	625	571	885	1392	-	-	1417	-	-
Stage 1	845	768	-	831	757	-	-	-	-	-	-	-
Stage 2	830	756	-	845	748	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	620	587	889	623	569	885	1392	-	-	1417	-	-
Mov Capacity-2 Maneuver	620	587	-	623	569	-	-	-	-	-	-	-
Stage 1	842	768	-	828	754	-	-	-	-	-	-	-
Stage 2	824	753	-	845	748	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	11	0.2	0
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1392	-	-	0	607	1417	-	-
HCM Lane V/C Ratio	0.004	-	-	+	0.013	-	-	-
HCM Control Delay (s)	7.596	0	-	0	11	0	-	-
HCM Lane LOS	A	A		A	B	A		
HCM 95th %tile Q(veh)	0.012	-	-	+	0.038	0	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	64	7	16	4	6	3	14	87	4	5	105	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	70	8	17	4	7	3	15	95	4	5	114	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	25	0	0	239	173	16	222	181	8
Stage 1	-	-	-	-	-	-	155	155	-	17	17	-
Stage 2	-	-	-	-	-	-	84	18	-	205	164	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1610	-	-	1589	-	-	715	720	1063	734	713	1074
Stage 1	-	-	-	-	-	-	847	769	-	1002	881	-
Stage 2	-	-	-	-	-	-	924	880	-	797	762	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1610	-	-	1589	-	-	590	686	1063	631	680	1074
Mov Capacity-2 Maneuver	-	-	-	-	-	-	590	686	-	631	680	-
Stage 1	-	-	-	-	-	-	810	735	-	958	878	-
Stage 2	-	-	-	-	-	-	786	877	-	661	728	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.4	2.2	11.4	11.2
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	680	1610	-	-	1589	-	-	717
HCM Lane V/C Ratio	0.168	0.043	-	-	0.003	-	-	0.196
HCM Control Delay (s)	11.4	7.337	0	-	7.272	0	-	11.2
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.6	0.135	-	-	0.008	-	-	0.722

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	27	20	61	17	11	14	47	316	60	10	242	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	22	66	18	12	15	51	343	65	11	263	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	784	811	278	789	793	376	293	0	0	409	0	0
Stage 1	300	300	-	478	478	-	-	-	-	-	-	-
Stage 2	484	511	-	311	315	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	311	313	761	308	321	670	1269	-	-	1150	-	-
Stage 1	709	666	-	568	556	-	-	-	-	-	-	-
Stage 2	564	537	-	699	656	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	284	298	761	256	305	670	1269	-	-	1150	-	-
Mov Capacity-2 Maneuver	284	298	-	256	305	-	-	-	-	-	-	-
Stage 1	681	660	-	545	534	-	-	-	-	-	-	-
Stage 2	517	515	-	611	650	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	16.9	0.9	0.3
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1269	-	-	356	761	298	670	1150	-	-
HCM Lane V/C Ratio	0.04	-	-	0.206	0.058	0.119	0.015	0.009	-	-
HCM Control Delay (s)	7.956	-	-	17.7	10	18.7	10.5	8.16	-	-
HCM Lane LOS	A			C	B	C	B	A		
HCM 95th %tile Q(veh)	0.126	-	-	0.76	0.185	0.401	0.046	0.029	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	38	2	8	34	31	3	75	10	27	108	12
Conflicting Peds, #/hr	29	0	4	4	0	29	2	0	4	4	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	6	-	-	-2	-	-	5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	2	2	2	2	2	2	2	7	2	9
Mvmt Flow	12	41	2	9	37	34	3	82	11	29	117	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	370	340	157	355	340	120	159	0	0	121	0	0
Stage 1	212	212	-	122	122	-	-	-	-	-	-	-
Stage 2	158	128	-	233	218	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.126	3.318	3.518	4.018	3.318	2.218	-	-	2.263	-	-
Pot Capacity-1 Maneuver	637	607	904	533	519	913	1420	-	-	1436	-	-
Stage 1	828	739	-	847	763	-	-	-	-	-	-	-
Stage 2	874	790	-	712	672	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	549	558	877	475	477	880	1414	-	-	1430	-	-
Mov Capacity-2 Maneuver	549	558	-	475	477	-	-	-	-	-	-	-
Stage 1	805	704	-	818	737	-	-	-	-	-	-	-
Stage 2	793	763	-	651	640	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	12	0.3	1.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1414	-	-	564	592	1430	-	-
HCM Lane V/C Ratio	0.002	-	-	0.098	0.134	0.021	-	-
HCM Control Delay (s)	7.552	0	-	12.1	12	7.57	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.325	0.461	0.063	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	41	9	6	37	35	6	108	12	57	141	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	45	10	7	40	38	7	117	13	62	153	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	464	431	164	452	435	124	174	0	0	130	0	0
Stage 1	288	288	-	137	137	-	-	-	-	-	-	-
Stage 2	176	143	-	315	298	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	508	517	881	518	514	927	1403	-	-	1455	-	-
Stage 1	720	674	-	866	783	-	-	-	-	-	-	-
Stage 2	826	779	-	696	667	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	439	490	881	458	487	927	1403	-	-	1455	-	-
Mov Capacity-2 Maneuver	439	490	-	458	487	-	-	-	-	-	-	-
Stage 1	716	642	-	862	779	-	-	-	-	-	-	-
Stage 2	747	775	-	610	636	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	11.8	0.4	2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1403	-	-	516	615	1455	-	-
HCM Lane V/C Ratio	0.005	-	-	0.124	0.138	0.043	-	-
HCM Control Delay (s)	7.578	0	-	13	11.8	7.584	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.014	-	-	0.423	0.476	0.133	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	0	3	25	1	32	0	168	16	20	197	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	-3	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	14	25	2	2	2	11	2	2	2
Mvmt Flow	1	0	3	27	1	35	0	183	17	22	214	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	467	458	215	451	450	191	215	0	0	200	0	0
Stage 1	258	258	-	191	191	-	-	-	-	-	-	-
Stage 2	209	200	-	260	259	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.626	4.225	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	547	539	840	486	460	846	1355	-	-	1372	-	-
Stage 1	779	725	-	776	694	-	-	-	-	-	-	-
Stage 2	821	761	-	709	644	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	516	529	840	477	452	846	1355	-	-	1372	-	-
Mov Capacity-2 Maneuver	516	529	-	477	452	-	-	-	-	-	-	-
Stage 1	779	712	-	776	694	-	-	-	-	-	-	-
Stage 2	786	761	-	694	632	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	11.4	0	0.7
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1355	-	-	726	627	1372	-	-
HCM Lane V/C Ratio	-	-	-	0.006	0.101	0.016	-	-
HCM Control Delay (s)	0	-	-	10	11.4	7.666	0	-
HCM Lane LOS	A			B	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.018	0.334	0.048	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	14	32	34	9	26	10	18	158	7	15	185	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-3	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	35	37	10	28	11	20	172	8	16	201	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	481	465	215	498	476	176	228	0	0	179	0	0
Stage 1	247	247	-	215	215	-	-	-	-	-	-	-
Stage 2	234	218	-	283	261	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	495	495	825	483	488	867	1340	-	-	1397	-	-
Stage 1	757	702	-	787	725	-	-	-	-	-	-	-
Stage 2	769	723	-	724	692	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	456	480	825	426	473	867	1340	-	-	1397	-	-
Mov Capacity-2 Maneuver	456	480	-	426	473	-	-	-	-	-	-	-
Stage 1	744	693	-	774	713	-	-	-	-	-	-	-
Stage 2	717	711	-	648	683	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12.7	0.8	0.5
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1340	-	-	577	514	1397	-	-
HCM Lane V/C Ratio	0.015	-	-	0.151	0.095	0.012	-	-
HCM Control Delay (s)	7.726	0	-	12.3	12.7	7.607	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.044	-	-	0.528	0.314	0.035	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	0	59	0	0	0	20	422	1	1	350	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	54	-	-	-	-	-	52	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	64	0	0	0	22	459	1	1	380	12

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	662	891	196				392	0	0	459	0	0
Stage 1	389	389	-				-	-	-	-	-	-
Stage 2	273	502	-				-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32				2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	395	280	812				1163	-	-	1098	-	-
Stage 1	654	607	-				-	-	-	-	-	-
Stage 2	748	540	-				-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	385	0	812				1163	-	-	1098	-	-
Mov Capacity-2 Maneuver	385	0	-				-	-	-	-	-	-
Stage 1	653	0	-				-	-	-	-	-	-
Stage 2	729	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.5	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1163	-	-	581	812	1098	-	-
HCM Lane V/C Ratio	0.019	-	-	0.057	0.053	0.001	-	-
HCM Control Delay (s)	8.154	0.1	-	11.6	9.7	8.282	0	-
HCM Lane LOS	A	A		B	A	A	A	
HCM 95th %tile Q(veh)	0.057	-	-	0.182	0.166	0.003	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	27	58	4	1	30	40	5	3	0	68	1	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	86	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	63	4	1	33	43	5	3	0	74	1	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	224	186	24	220	210	3	48	0	0	3	0	0
Stage 1	172	172	-	14	14	-	-	-	-	-	-	-
Stage 2	52	14	-	206	196	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	732	708	1052	736	687	1081	1559	-	-	1619	-	-
Stage 1	830	756	-	1006	884	-	-	-	-	-	-	-
Stage 2	961	884	-	796	739	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	651	674	1052	656	654	1081	1559	-	-	1619	-	-
Mov Capacity-2 Maneuver	651	674	-	656	654	-	-	-	-	-	-	-
Stage 1	828	721	-	1003	881	-	-	-	-	-	-	-
Stage 2	886	881	-	690	705	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	9.7	4.6	4.5
HCM LOS	B	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1559	-	-	678	841	1619	-	-
HCM Lane V/C Ratio	0.003	-	-	0.143	0.092	0.046	-	-
HCM Control Delay (s)	7.317	0	-	11.2	9.7	7.33	-	-
HCM Lane LOS	A	A		B	A	A		
HCM 95th %tile Q(veh)	0.01	-	-	0.496	0.302	0.143	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	67	82	2	0	90	17	2	1	1	37	4	71
Conflicting Peds, #/hr	2	0	3	3	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	4	-	-	-6	-	-	7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	2	3
Mvmt Flow	73	89	2	0	98	18	2	1	1	40	4	77

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	193	136	46	181	174	5	85	0	0	5	0	0
Stage 1	126	126	-	9	9	-	-	-	-	-	-	-
Stage 2	67	10	-	172	165	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Capacity-1 Maneuver	817	790	1031	750	692	1078	1512	-	-	1590	-	-
Stage 1	916	826	-	1010	886	-	-	-	-	-	-	-
Stage 2	965	890	-	799	734	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	696	763	1028	664	668	1074	1512	-	-	1590	-	-
Mov Capacity-2 Maneuver	696	763	-	664	668	-	-	-	-	-	-	-
Stage 1	913	802	-	1005	881	-	-	-	-	-	-	-
Stage 2	842	885	-	690	712	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	11.1	3.7	2.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1512	-	-	734	711	1590	-	-
HCM Lane V/C Ratio	0.001	-	-	0.224	0.164	0.025	-	-
HCM Control Delay (s)	7.384	0	-	11.3	11.1	7.323	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.004	-	-	0.854	0.582	0.078	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	29	115	4	8	144	11	9	6	6	11	2	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	125	4	9	157	12	10	7	7	12	2	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	129	0	0	385	376	127	377	372	163
Stage 1	-	-	-	-	-	-	190	190	-	180	180	-
Stage 2	-	-	-	-	-	-	195	186	-	197	192	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1410	-	-	1457	-	-	573	555	923	580	558	882
Stage 1	-	-	-	-	-	-	812	743	-	822	750	-
Stage 2	-	-	-	-	-	-	807	746	-	805	742	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1410	-	-	1457	-	-	541	539	923	558	542	882
Mov Capacity-2 Maneuver	-	-	-	-	-	-	541	539	-	558	542	-
Stage 1	-	-	-	-	-	-	794	726	-	803	745	-
Stage 2	-	-	-	-	-	-	774	741	-	774	725	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	11.1	10.2
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	613	1410	-	-	1457	-	-	734
HCM Lane V/C Ratio	0.037	0.022	-	-	0.006	-	-	0.056
HCM Control Delay (s)	11.1	7.612	-	-	7.486	0	-	10.2
HCM Lane LOS	B	A			A	A		B
HCM 95th %tile Q(veh)	0.116	0.069	-	-	0.018	-	-	0.179

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	142	52	38	164	1	55	20	40	1	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	154	57	41	178	1	60	22	43	1	7	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	179	0	0	211	0	0	457	453	183	485	481	179
Stage 1	-	-	-	-	-	-	191	191	-	261	261	-
Stage 2	-	-	-	-	-	-	266	262	-	224	220	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1397	-	-	1360	-	-	514	503	859	492	485	864
Stage 1	-	-	-	-	-	-	811	742	-	744	692	-
Stage 2	-	-	-	-	-	-	739	691	-	779	721	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1397	-	-	1360	-	-	493	485	859	439	468	864
Mov Capacity-2 Maneuver	-	-	-	-	-	-	493	485	-	439	468	-
Stage 1	-	-	-	-	-	-	809	740	-	742	669	-
Stage 2	-	-	-	-	-	-	705	668	-	716	719	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.4	13	11.8
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	577	1397	-	-	1360	-	-	538
HCM Lane V/C Ratio	0.217	0.003	-	-	0.03	-	-	0.02
HCM Control Delay (s)	13	7.585	0	-	7.73	0	-	11.8
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.818	0.009	-	-	0.094	-	-	0.062

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	3	169	0	53	2	120	130	69	148	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Yield	Yield	Yield	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	7	-	-	-4	-	-	8	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	33	2	14	2	33	2	2	6	2	6	2	2
Mvmt Flow	0	0	3	184	0	58	2	130	141	75	161	2

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	478	425	0	532	396	29
Stage 1	-	-	-	0	0	-	396	396	-
Stage 2	-	-	-	478	425	-	136	0	-
Follow-up Headway	-	-	-	3.518	4.054	-	3.554	4.018	3.318
Pot Capacity-1 Maneuver	-	-	-	402	426	-	480	565	1048
Stage 1	-	-	-	-	-	-	649	631	-
Stage 2	-	-	-	460	480	-	-	-	-
Time blocked-Platoon, %		-	-						
Mov Capacity-1 Maneuver	-	-	-	313	426	-	-	565	1048
Mov Capacity-2 Maneuver	-	-	-	313	426	-	-	565	-
Stage 1	-	-	-	-	-	-	649	631	-
Stage 2	-	-	-	342	480	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	+	+
HCM LOS		-	-

Minor Lane / Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	-	-	-	+
HCM Lane V/C Ratio	+	-	-	-	+
HCM Control Delay (s)	+	-	-	-	+
HCM Lane LOS	+				+
HCM 95th %tile Q(veh)	+	-	-	-	+

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	18	2	105	12	4	3	13	126	8	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	20	2	114	13	4	3	14	137	9	10	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	125	185	10	127	116	83	10	0	0	151	0	0
Stage 1	27	27	-	89	89	-	-	-	-	-	-	-
Stage 2	98	158	-	38	27	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	849	709	1071	846	774	976	1610	-	-	1430	-	-
Stage 1	990	873	-	918	821	-	-	-	-	-	-	-
Stage 2	908	767	-	977	873	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	829	703	1071	821	768	976	1610	-	-	1430	-	-
Mov Capacity-2 Maneuver	829	703	-	821	768	-	-	-	-	-	-	-
Stage 1	988	868	-	916	819	-	-	-	-	-	-	-
Stage 2	888	765	-	947	868	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.2	0.2	3.5
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1610	-	-	732	820	1430	-	-
HCM Lane V/C Ratio	0.002	-	-	0.031	0.16	0.006	-	-
HCM Control Delay (s)	7.241	0	-	10.1	10.2	7.533	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.006	-	-	0.096	0.569	0.018	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	4	1	1	0	16	1	60	1	13	81	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	4	1	1	0	17	1	65	1	14	88	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	196	187	91	190	190	66	93	0	0	66	0	0
Stage 1	119	119	-	68	68	-	-	-	-	-	-	-
Stage 2	77	68	-	122	122	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	763	708	967	770	705	998	1501	-	-	1536	-	-
Stage 1	885	797	-	942	838	-	-	-	-	-	-	-
Stage 2	932	838	-	882	795	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	743	700	967	759	697	998	1501	-	-	1536	-	-
Mov Capacity-2 Maneuver	743	700	-	759	697	-	-	-	-	-	-	-
Stage 1	884	789	-	941	837	-	-	-	-	-	-	-
Stage 2	915	837	-	867	787	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	8.7	0.1	1
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1501	-	-	742	980	1536	-	-
HCM Lane V/C Ratio	0.001	-	-	0.015	0.019	0.009	-	-
HCM Control Delay (s)	7.4	0	-	9.9	8.7	7.366	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.002	-	-	0.045	0.058	0.028	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	4	1	6	12	6	0	11	7	15	12	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	4	1	7	13	7	0	12	8	16	13	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	5	0	0	57	51	5	57	47	16
Stage 1	-	-	-	-	-	-	18	18	-	29	29	-
Stage 2	-	-	-	-	-	-	39	33	-	28	18	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1596	-	-	1616	-	-	940	840	1078	940	845	1063
Stage 1	-	-	-	-	-	-	1001	880	-	988	871	-
Stage 2	-	-	-	-	-	-	976	868	-	989	880	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1596	-	-	1616	-	-	918	833	1078	918	838	1063
Mov Capacity-2 Maneuver	-	-	-	-	-	-	918	833	-	918	838	-
Stage 1	-	-	-	-	-	-	997	876	-	984	868	-
Stage 2	-	-	-	-	-	-	952	865	-	965	876	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	1.8	9	9.1
HCM LOS			A	A

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	914	1596	-	-	1616	-	-	909
HCM Lane V/C Ratio	0.021	0.004	-	-	0.004	-	-	0.039
HCM Control Delay (s)	9	7.265	0	-	7.237	0	-	9.1
HCM Lane LOS	A	A	A		A	A		A
HCM 95th %tile Q(veh)	0.066	0.012	-	-	0.012	-	-	0.123

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	6	13	13	14	37	3	117	8	20	90	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	7	14	14	15	40	3	127	9	22	98	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	313	289	104	296	291	132	110	0	0	136	0	0
Stage 1	147	147	-	138	138	-	-	-	-	-	-	-
Stage 2	166	142	-	158	153	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	640	621	951	656	619	917	1480	-	-	1448	-	-
Stage 1	856	775	-	865	782	-	-	-	-	-	-	-
Stage 2	836	779	-	844	771	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	592	610	951	632	608	917	1480	-	-	1448	-	-
Mov Capacity-2 Maneuver	592	610	-	632	608	-	-	-	-	-	-	-
Stage 1	854	763	-	863	780	-	-	-	-	-	-	-
Stage 2	782	777	-	811	759	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	10.2	0.2	1.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1480	-	-	693	762	1448	-	-
HCM Lane V/C Ratio	0.002	-	-	0.055	0.091	0.015	-	-
HCM Control Delay (s)	7.438	0	-	10.5	10.2	7.524	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	0.174	0.3	0.046	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	8	3	16	4	1	39	23	591	8	46	670	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	340	-	-	99	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	17	4	1	42	25	642	9	50	728	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1220	1549	384	1163	1565	326	768	0	0	651	0	0
Stage 1	848	848	-	697	697	-	-	-	-	-	-	-
Stage 2	372	701	-	466	868	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	136	113	614	150	110	670	842	-	-	931	-	-
Stage 1	322	376	-	398	441	-	-	-	-	-	-	-
Stage 2	621	439	-	546	368	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	118	104	614	133	101	670	842	-	-	931	-	-
Mov Capacity-2 Maneuver	118	104	-	133	101	-	-	-	-	-	-	-
Stage 1	312	356	-	386	428	-	-	-	-	-	-	-
Stage 2	563	426	-	497	348	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.9	14	0.3	0.6
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	842	-	-	220	448	931	-	-
HCM Lane V/C Ratio	0.03	-	-	0.133	0.107	0.054	-	-
HCM Control Delay (s)	9.406	-	-	23.9	14	9.086	-	-
HCM Lane LOS	A			C	B	A		
HCM 95th %tile Q(veh)	0.092	-	-	0.453	0.356	0.17	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Vol, veh/h	10	0	1	13	0	23	0	88	17	16	83	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	0	1	14	0	25	0	96	18	17	90	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	243	240	91	231	231	105	91	0	0	114	0	0
Stage 1	126	126	-	105	105	-	-	-	-	-	-	-
Stage 2	117	114	-	126	126	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	711	661	967	724	669	949	1504	-	-	1475	-	-
Stage 1	878	792	-	901	808	-	-	-	-	-	-	-
Stage 2	888	801	-	878	792	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	686	653	967	717	661	949	1504	-	-	1475	-	-
Mov Capacity-2 Maneuver	686	653	-	717	661	-	-	-	-	-	-	-
Stage 1	878	782	-	901	808	-	-	-	-	-	-	-
Stage 2	865	801	-	866	782	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	10.2	9.4	0	1.2
HCM LOS	B	A		

Minor Lane / Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1504	-	-	850	705	1475	-	-
HCM Lane V/C Ratio	-	-	-	0.046	0.017	0.012	-	-
HCM Control Delay (s)	0	-	-	9.4	10.2	7.47	0	-
HCM Lane LOS	A			A	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.145	0.052	0.036	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	77	10	10	55	56	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	11	11	60	61	75

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	180	98	136	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	810	958	1448	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	804	958	1448	-	-	-
Mov Capacity-2 Maneuver	804	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	933	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	10	1.2	0
HCM LOS	B		

Minor Lane / Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1448	-	819	-	-
HCM Lane V/C Ratio	0.008	-	0.115	-	-
HCM Control Delay (s)	7.505	0	10	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.023	-	0.39	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	13	91	67	3	2	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	99	73	3	2	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	76	0	-	0	201	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	127	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1523	-	-	-	788	988
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	899	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1523	-	-	-	780	988
Mov Capacity-2 Maneuver	-	-	-	-	780	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	890	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	8.8
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1523	-	-	-	962
HCM Lane V/C Ratio	0.009	-	-	-	0.023
HCM Control Delay (s)	7.386	0	-	-	8.8
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.028	-	-	-	0.069

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.8

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Vol, veh/h	176	38	13	156	44	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	1000	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	6	40	18	28	25
Mvmt Flow	191	41	14	170	48	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	233	0	325	116
Stage 1	-	-	-	-	212	-
Stage 2	-	-	-	-	113	-
Follow-up Headway	-	-	2.6	-	3.78	3.55
Pot Capacity-1 Maneuver	-	-	1096	-	558	840
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	817	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1096	-	551	840
Mov Capacity-2 Maneuver	-	-	-	-	551	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	807	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0.6	11.6
HCM LOS			B

Minor Lane / Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	1096	-	609
HCM Lane V/C Ratio	-	-	0.013	-	0.109
HCM Control Delay (s)	-	-	8.328	-	11.6
HCM Lane LOS			A		B
HCM 95th %tile Q(veh)	-	-	0.039	-	0.365

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	0	12	21	25	44	16	164	0	0	209	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	84	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	13	23	27	48	17	178	0	0	227	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	483	445	232	452	450	178	237	0	0	178	0	0
Stage 1	232	232	-	213	213	-	-	-	-	-	-	-
Stage 2	251	213	-	239	237	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	494	508	807	518	504	865	1330	-	-	1398	-	-
Stage 1	771	713	-	789	726	-	-	-	-	-	-	-
Stage 2	753	726	-	764	709	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	442	501	807	504	497	865	1330	-	-	1398	-	-
Mov Capacity-2 Maneuver	442	501	-	504	497	-	-	-	-	-	-	-
Stage 1	760	713	-	778	716	-	-	-	-	-	-	-
Stage 2	675	716	-	752	709	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	11.4	0.7	0
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1330	-	-	579	504	661	1398	-	-
HCM Lane V/C Ratio	0.013	-	-	0.043	0.03	0.125	-	-	-
HCM Control Delay (s)	7.743	0	-	11.5	12.4	11.2	0	-	-
HCM Lane LOS	A	A		B	B	B	A		
HCM 95th %tile Q(veh)	0.04	-	-	0.135	0.093	0.426	0	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	65	19	97	9	26	21	81	352	24	29	344	53
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	108	-	-	60	-	-	120	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	2	2	14	18	2	2	4	2	2	3	7
Mvmt Flow	71	21	105	10	28	23	88	383	26	32	374	58

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1065	1053	406	1103	1069	399	433	0	0	410	0	0
Stage 1	467	467	-	573	573	-	-	-	-	-	-	-
Stage 2	598	586	-	530	496	-	-	-	-	-	-	-
Follow-up Headway	3.644	4.018	3.318	3.626	4.162	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	188	226	645	179	207	651	1127	-	-	1149	-	-
Stage 1	550	562	-	484	479	-	-	-	-	-	-	-
Stage 2	466	497	-	511	520	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	147	202	643	127	185	649	1124	-	-	1146	-	-
Mov Capacity-2 Maneuver	147	202	-	127	185	-	-	-	-	-	-	-
Stage 1	506	546	-	446	441	-	-	-	-	-	-	-
Stage 2	387	458	-	399	505	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27	24.3	1.5	0.6
HCM LOS	D	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1124	-	-	147	351	127	254	1146	-	-
HCM Lane V/C Ratio	0.078	-	-	0.32	0.426	0.051	0.214	0.028	-	-
HCM Control Delay (s)	8.475	-	-	40.6	22.7	34.9	23	8.23	-	-
HCM Lane LOS	A			E	C	D	C	A		
HCM 95th %tile Q(veh)	0.254	-	-	1.283	2.061	0.161	0.792	0.085	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	49	15	91	16	18	69	67	377	16	60	270	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	6	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	16	99	17	20	75	73	410	17	65	293	86

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	827	1040	190	849	1074	214	379	0	0	427	0	0
Stage 1	467	467	-	564	564	-	-	-	-	-	-	-
Stage 2	360	573	-	285	510	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	264	229	820	254	218	791	1176	-	-	1129	-	-
Stage 1	545	560	-	478	507	-	-	-	-	-	-	-
Stage 2	631	502	-	698	536	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	195	195	820	185	185	791	1176	-	-	1129	-	-
Mov Capacity-2 Maneuver	195	195	-	185	185	-	-	-	-	-	-	-
Stage 1	500	519	-	439	465	-	-	-	-	-	-	-
Stage 2	502	461	-	551	496	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.2	18.4	1.4	1.4
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1176	-	-	353	380	1129	-	-
HCM Lane V/C Ratio	0.062	-	-	0.477	0.295	0.058	-	-
HCM Control Delay (s)	8.263	0.2	-	24.2	18.4	8.384	0.2	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.198	-	-	2.474	1.209	0.184	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	155	0	53	0	1	7	29	276	1	6	260	155
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	244	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	168	0	58	0	1	8	32	300	1	7	283	168

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	594	744	226	518	828	151	451	0	0	301	0	0
Stage 1	380	380	-	364	364	-	-	-	-	-	-	-
Stage 2	214	364	-	154	464	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	389	341	777	440	305	868	1106	-	-	1257	-	-
Stage 1	614	612	-	627	622	-	-	-	-	-	-	-
Stage 2	768	622	-	833	562	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	372	326	777	394	292	868	1106	-	-	1257	-	-
Mov Capacity-2 Maneuver	372	326	-	394	292	-	-	-	-	-	-	-
Stage 1	593	607	-	605	600	-	-	-	-	-	-	-
Stage 2	733	600	-	765	558	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.2	10.2	0.9	0.1
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1106	-	-	372	777	696	1257	-	-
HCM Lane V/C Ratio	0.029	-	-	0.453	0.074	0.012	0.005	-	-
HCM Control Delay (s)	8.35	0.1	-	22.4	10	10.2	7.879	0	-
HCM Lane LOS	A	A		C	B	B	A	A	
HCM 95th %tile Q(veh)	0.088	-	-	2.279	0.24	0.038	0.016	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	28	49	22	22	46	24	14	209	26	21	218	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	5	8	12	2	2	2	2	8	2	15	19
Mvmt Flow	30	53	24	24	50	26	15	227	28	23	237	42
Number of Lanes	1	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	10	10	10.3	10.6
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	73%	0%	69%	0%	66%	0%	100%	65%
Vol Right, %	0%	0%	27%	0%	31%	0%	34%	0%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	139	96	28	71	22	70	21	145	112
LT Vol	0	139	70	0	49	0	46	0	145	73
Through Vol	0	0	26	0	22	0	24	0	0	39
RT Vol	14	0	0	28	0	22	0	21	0	0
Lane Flow Rate	15	151	104	30	77	24	76	23	158	121
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.027	0.252	0.17	0.059	0.135	0.047	0.132	0.041	0.269	0.201
Departure Headway (Hd)	6.491	5.986	5.897	6.967	6.283	7.143	6.231	6.414	6.133	5.955
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	552	600	608	514	570	501	575	559	586	603
Service Time	4.227	3.722	3.633	4.707	4.023	4.883	3.971	4.146	3.865	3.687
HCM Lane V/C Ratio	0.027	0.252	0.171	0.058	0.135	0.048	0.132	0.041	0.27	0.201
HCM Control Delay	9.4	10.7	9.8	10.1	10	10.2	9.9	9.4	11.1	10.2
HCM Lane LOS	A	B	A	B	A	B	A	A	B	B
HCM 95th-tile Q	0.1	1	0.6	0.2	0.5	0.1	0.5	0.1	1.1	0.7

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	1	0	4	3	66	1	164	11	85	166	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	42	45	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	5	-	-	1	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	2	2	2	2	6	2	3	13	38
Mvmt Flow	5	1	0	4	3	72	1	178	12	92	180	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	463	562	97	464	559	99	187	0	0	191	0	0
Stage 1	369	369	-	187	187	-	-	-	-	-	-	-
Stage 2	94	193	-	277	372	-	-	-	-	-	-	-
Follow-up Headway	3.62	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.23	-	-
Pot Capacity-1 Maneuver	497	477	948	423	373	925	1385	-	-	1373	-	-
Stage 1	634	659	-	756	706	-	-	-	-	-	-	-
Stage 2	888	764	-	654	557	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	430	444	945	399	347	922	1382	-	-	1370	-	-
Mov Capacity-2 Maneuver	430	444	-	399	347	-	-	-	-	-	-	-
Stage 1	633	614	-	755	705	-	-	-	-	-	-	-
Stage 2	812	763	-	607	519	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	9.9	0	2.6
HCM LOS	B	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1382	-	-	432	0	399	842	1370	-	-
HCM Lane V/C Ratio	0.001	-	-	0.015	+	0.007	0.091	0.067	-	-
HCM Control Delay (s)	7.607	-	-	13.5	0	14.1	9.7	7.818	-	-
HCM Lane LOS	A			B	A	B	A	A		
HCM 95th %tile Q(veh)	0.002	-	-	0.046	+	0.022	0.299	0.217	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	349	70	107	341	3	65	1	135	2	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Yield	Yield	Yield
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	379	76	116	371	3	71	1	147	2	1	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	374	0	0	455	0	0	1027	1029	417
Stage 1	-	-	-	-	-	-	422	422	-
Stage 2	-	-	-	-	-	-	605	607	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1184	-	-	1106	-	-	213	234	636
Stage 1	-	-	-	-	-	-	609	588	-
Stage 2	-	-	-	-	-	-	485	486	-
Time blocked-Platoon, %		-	-		-	-			
Mov Capacity-1 Maneuver	1184	-	-	1106	-	-	191	203	636
Mov Capacity-2 Maneuver	-	-	-	-	-	-	191	203	-
Stage 1	-	-	-	-	-	-	608	587	-
Stage 2	-	-	-	-	-	-	421	422	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	29.1
HCM LOS			D

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	361	1184	-	-	1106	-	-
HCM Lane V/C Ratio	0.605	0.002	-	-	0.105	-	-
HCM Control Delay (s)	29.1	8.046	0	-	8.637	0	-
HCM Lane LOS	D	A	A		A	A	
HCM 95th %tile Q(veh)	3.792	0.006	-	-	0.352	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	80	6	3	129	191	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	7	3	140	208	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	390	243	279	0	-	0
Stage 1	243	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	614	796	1284	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	612	796	1284	-	-	-
Mov Capacity-2 Maneuver	612	-	-	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0.2	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1284	-	622	-	-
HCM Lane V/C Ratio	0.003	-	0.15	-	-
HCM Control Delay (s)	7.811	0	11.8	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.008	-	0.526	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	4	25	4	6	22	20	240	9	19	220	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	27	4	7	24	22	261	10	21	239	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	620	610	254	620	620	266	270	0	0	271	0	0
Stage 1	296	296	-	309	309	-	-	-	-	-	-	-
Stage 2	324	314	-	311	311	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	400	409	785	400	404	773	1293	-	-	1292	-	-
Stage 1	712	668	-	701	660	-	-	-	-	-	-	-
Stage 2	688	656	-	699	658	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	371	393	785	372	388	773	1293	-	-	1292	-	-
Mov Capacity-2 Maneuver	371	393	-	372	388	-	-	-	-	-	-	-
Stage 1	698	655	-	687	647	-	-	-	-	-	-	-
Stage 2	647	643	-	658	645	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	11.5	0.6	0.6
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1293	-	-	625	585	1292	-	-
HCM Lane V/C Ratio	0.017	-	-	0.057	0.059	0.016	-	-
HCM Control Delay (s)	7.832	0	-	11.1	11.5	7.832	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.051	-	-	0.182	0.189	0.049	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	30	15	0	89	97	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	16	0	97	105	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	202	105	105	0	-	0
Stage 1	105	-	-	-	-	-
Stage 2	97	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	787	949	1486	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	927	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	787	949	1486	-	-	-
Mov Capacity-2 Maneuver	787	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	927	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1486	-	834	-	-
HCM Lane V/C Ratio	-	-	0.059	-	-
HCM Control Delay (s)	0	-	9.6	-	-
HCM Lane LOS	A		A		
HCM 95th %tile Q(veh)	0	-	0.187	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

PM PEAK HOUR

HCM Unsignalized Intersection Capacity Analysis
1: Lake Shore Blvd & Peter White Dr

4/24/2014

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	2	1	9	5	0	1	19	122	3	1	122	3
Sign Control		Yield			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1	10	5	0	1	21	133	3	1	133	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	313	314	134	322	314	134	136			136		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	313	314	134	322	314	134	136			136		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	99	100	100	99			100		
cM capacity (veh/h)	631	593	915	616	593	915	1448			1448		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	13	7	157	137
Volume Left	2	5	21	1
Volume Right	10	1	3	3
cSH	817	651	1448	1448
Volume to Capacity	0.02	0.01	0.01	0.00
Queue Length 95th (ft)	1	1	1	0
Control Delay (s)	9.5	10.6	1.1	0.1
Lane LOS	A	B	A	A
Approach Delay (s)	9.5	10.6	1.1	0.1
Approach LOS	A	B		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	57	90	64	104	97	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	98	70	113	105	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	386	134	162	0	-	0
Stage 1	134	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	617	915	1417	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	584	915	1417	-	-	-
Mov Capacity-2 Maneuver	584	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	2.9	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1417	-	750	-	-
HCM Lane V/C Ratio	0.049	-	0.213	-	-
HCM Control Delay (s)	7.672	0	11.1	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.155	-	0.803	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	37	37	35	51	3	34	4	36	15	29	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	82	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	40	40	38	55	3	37	4	39	16	32	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	80	0	0	225	211	60	230	229	57
Stage 1	-	-	-	-	-	-	76	76	-	133	133	-
Stage 2	-	-	-	-	-	-	149	135	-	97	96	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1545	-	-	1518	-	-	730	686	1005	725	671	1009
Stage 1	-	-	-	-	-	-	933	832	-	870	786	-
Stage 2	-	-	-	-	-	-	854	785	-	910	815	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1545	-	-	1518	-	-	664	665	1005	677	650	1009
Mov Capacity-2 Maneuver	-	-	-	-	-	-	664	665	-	677	650	-
Stage 1	-	-	-	-	-	-	928	828	-	866	766	-
Stage 2	-	-	-	-	-	-	772	765	-	866	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2.9	9.8	10.1
HCM LOS			A	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	664	871	1545	-	-	1518	-	-	704	1009
HCM Lane V/C Ratio	0.037	0.064	0.005	-	-	0.025	-	-	0.083	0.022
HCM Control Delay (s)	10.6	9.4	7.342	0	-	7.432	0	-	10.6	8.6
HCM Lane LOS	B	A	A	A		A	A		B	A
HCM 95th %tile Q(veh)	0.115	0.205	0.015	-	-	0.077	-	-	0.272	0.066

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	87	135	110	88	138	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	67	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	95	147	120	96	150	93

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	241	0	503	168
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	335	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1326	-	528	876
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	725	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1326	-	477	876
Mov Capacity-2 Maneuver	-	-	-	-	477	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	13.5
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	477	876	-	-	1326	-
HCM Lane V/C Ratio	0.314	0.107	-	-	0.09	-
HCM Control Delay (s)	16	9.6	-	-	7.984	0
HCM Lane LOS	C	A			A	A
HCM 95th %tile Q(veh)	1.333	0.357	-	-	0.297	-

Notes

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Intersection	
Intersection Delay, s/veh	17.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	5	3	79	6	10	4	351	68	19	479	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	3	86	7	11	4	382	74	21	521	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	10.8	15.4	19.8
HCM LOS	A	B	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	20%	83%	4%
Vol Thru, %	83%	50%	6%	96%
Vol Right, %	16%	30%	11%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	423	10	95	501
LT Vol	351	5	6	479
Through Vol	68	3	10	3
RT Vol	4	2	79	19
Lane Flow Rate	460	11	103	545
Geometry Grp	1	1	1	1
Degree of Util (X)	0.614	0.019	0.183	0.728
Departure Headway (Hd)	4.811	6.444	6.397	4.81
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	740	558	564	741
Service Time	2.905	4.451	4.397	2.899
HCM Lane V/C Ratio	0.622	0.02	0.183	0.735
HCM Control Delay	15.4	9.6	10.8	19.8
HCM Lane LOS	C	A	B	C
HCM 95th-tile Q	4.3	0.1	0.7	6.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	6	51	0	13	0	39	437	1	0	431	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	7	55	0	14	0	42	475	1	0	468	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1038	1032	471	1062	1033	476	473	0	0	476	0	0
Stage 1	471	471	-	560	560	-	-	-	-	-	-	-
Stage 2	567	561	-	502	473	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	209	233	593	201	232	589	1089	-	-	1086	-	-
Stage 1	573	560	-	513	511	-	-	-	-	-	-	-
Stage 2	508	510	-	552	558	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	191	221	593	171	220	589	1089	-	-	1086	-	-
Mov Capacity-2 Maneuver	191	221	-	171	220	-	-	-	-	-	-	-
Stage 1	543	560	-	486	484	-	-	-	-	-	-	-
Stage 2	468	483	-	495	558	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.8	22.5	0.7	0
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1089	-	-	405	220	1086	-	-
HCM Lane V/C Ratio	0.039	-	-	0.18	0.064	-	-	-
HCM Control Delay (s)	8.44	0	-	15.8	22.5	0	-	-
HCM Lane LOS	A	A		C	C	A		
HCM 95th %tile Q(veh)	0.121	-	-	0.648	0.204	0	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	33	98	65	134	173	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	107	71	146	188	18

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	484	197	207	0	-	0
Stage 1	197	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	542	844	1364	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	511	844	1364	-	-	-
Mov Capacity-2 Maneuver	511	-	-	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	719	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	2.5	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1364	-	725	-	-
HCM Lane V/C Ratio	0.052	-	0.196	-	-
HCM Control Delay (s)	7.783	0	11.2	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.164	-	0.726	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.6

Movement	NBL	NBT	SBT	SBR	NEL	NER
Vol, veh/h	6	140	227	42	58	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	152	247	46	63	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	292	0	-	0	435	270
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	165	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1270	-	-	-	578	769
Stage 1	-	-	-	-	775	-
Stage 2	-	-	-	-	864	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1270	-	-	-	575	769
Mov Capacity-2 Maneuver	-	-	-	-	575	-
Stage 1	-	-	-	-	775	-
Stage 2	-	-	-	-	859	-

Approach	NB	SB	NE
HCM Control Delay, s	0.3	0	12
HCM LOS			B

Minor Lane / Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	580	1270	-	-	-
HCM Lane V/C Ratio	0.112	0.005	-	-	-
HCM Control Delay (s)	12	7.849	0	-	-
HCM Lane LOS	B	A	A		
HCM 95th %tile Q(veh)	0.378	0.015	-	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	33	131	26	5	90	8	28	27	19	9	30	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	5	5	2	2	11	2	2	5	2	2	2	2
Mvmt Flow	36	142	28	5	98	9	30	29	21	10	33	43
Number of Lanes	0	2	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.7	8.4	8.3	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	38%	34%	0%	5%	11%
Vol Thru, %	36%	66%	72%	87%	38%
Vol Right, %	26%	0%	28%	8%	51%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	99	92	103	79
LT Vol	27	66	66	90	30
Through Vol	19	0	26	8	40
RT Vol	28	33	0	5	9
Lane Flow Rate	80	107	99	112	86
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.105	0.156	0.134	0.144	0.108
Departure Headway (Hd)	4.714	5.236	4.867	4.627	4.508
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	760	685	737	775	795
Service Time	2.744	2.966	2.598	2.659	2.537
HCM Lane V/C Ratio	0.105	0.156	0.134	0.145	0.108
HCM Control Delay	8.3	8.9	8.4	8.4	8.1
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0.6	0.5	0.5	0.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.5

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	23	53	206	23	41	132
Conflicting Peds, #/hr	10	5	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	19	2	2	10	2
Mvmt Flow	25	58	224	25	45	143

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	479	248	0	0	259	0
Stage 1	246	-	-	-	-	-
Stage 2	233	-	-	-	-	-
Follow-up Headway	3.518	3.471	-	-	2.29	-
Pot Capacity-1 Maneuver	545	751	-	-	1260	-
Stage 1	795	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	517	742	-	-	1258	-
Mov Capacity-2 Maneuver	517	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	773	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	11.3	0	1.9
HCM LOS	B		

Minor Lane / Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	1258	-	656	-	-
HCM Lane V/C Ratio	0.035	-	0.126	-	-
HCM Control Delay (s)	7.967	0	11.3	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.11	-	0.43	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	59	227	249	79	286	194
Conflicting Peds, #/hr	0	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-5	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	11	2	4	4	3
Mvmt Flow	64	247	271	86	311	211

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1150	318	0	0	360	0
Stage 1	317	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Follow-up Headway	3.518	3.399	-	-	2.236	-
Pot Capacity-1 Maneuver	219	702	-	-	1188	-
Stage 1	738	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	161	700	-	-	1187	-
Mov Capacity-2 Maneuver	161	-	-	-	-	-
Stage 1	736	-	-	-	-	-
Stage 2	315	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.8	0	5.4
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	161	700	1187	-
HCM Lane V/C Ratio	-	-	0.398	0.352	0.262	-
HCM Control Delay (s)	-	-	41.4	12.9	9.106	-
HCM Lane LOS			E	B	A	
HCM 95th %tile Q(veh)	-	-	1.737	1.589	1.054	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	49	154	154	60	139	13	109	17	67	11	50	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	74	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	167	167	65	151	14	118	18	73	12	54	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	165	0	0	335	0	0	591	654	167	488	730	83
Stage 1	-	-	-	-	-	-	358	358	-	289	289	-
Stage 2	-	-	-	-	-	-	233	296	-	199	441	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	1411	-	-	1221	-	-	391	385	848	463	348	960
Stage 1	-	-	-	-	-	-	633	626	-	694	672	-
Stage 2	-	-	-	-	-	-	749	667	-	784	575	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1411	-	-	1221	-	-	302	345	848	374	312	960
Mov Capacity-2 Maneuver	-	-	-	-	-	-	302	345	-	374	312	-
Stage 1	-	-	-	-	-	-	603	597	-	661	632	-
Stage 2	-	-	-	-	-	-	622	628	-	662	548	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	2.4	17.4	16.4
HCM LOS			C	C

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	302	484	1411	-	-	1221	-	-	414
HCM Lane V/C Ratio	0.262	0.27	0.038	-	-	0.053	-	-	0.242
HCM Control Delay (s)	21.1	15.2	7.651	0.1	-	8.115	0.1	-	16.4
HCM Lane LOS	C	C	A	A		A	A		C
HCM 95th %tile Q(veh)	1.025	1.084	0.118	-	-	0.169	-	-	0.933

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	167	51	18	153	72	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	182	55	20	166	78	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	237	0	331	118
Stage 1	-	-	-	-	209	-
Stage 2	-	-	-	-	122	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1327	-	638	912
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	890	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1327	-	627	912
Mov Capacity-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	875	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	11.2
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	687	-	-	1327	-
HCM Lane V/C Ratio	0.158	-	-	0.015	-
HCM Control Delay (s)	11.2	-	-	7.753	0.1
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.56	-	-	0.045	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	41	93	8	26	7	66	241	14	3	313	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	45	101	9	28	8	72	262	15	3	340	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	786	776	349	841	777	270	358	0	0	277	0	0
Stage 1	355	355	-	413	413	-	-	-	-	-	-	-
Stage 2	431	421	-	428	364	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	310	328	694	259	301	757	1201	-	-	1286	-	-
Stage 1	662	630	-	589	567	-	-	-	-	-	-	-
Stage 2	603	589	-	577	599	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	267	304	694	186	279	757	1201	-	-	1286	-	-
Mov Capacity-2 Maneuver	267	304	-	186	279	-	-	-	-	-	-	-
Stage 1	615	628	-	547	527	-	-	-	-	-	-	-
Stage 2	525	547	-	457	597	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.4	20.1	1.7	0.1
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1201	-	-	470	282	1286	-	-
HCM Lane V/C Ratio	0.06	-	-	0.333	0.158	0.003	-	-
HCM Control Delay (s)	8.188	0	-	16.4	20.1	7.806	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.19	-	-	1.445	0.553	0.008	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	6	7	0	8	5	4	63	1	6	60	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	7	8	0	9	5	4	68	1	7	65	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	164	157	66	164	157	69	66	0	0	70	0	0
Stage 1	79	79	-	78	78	-	-	-	-	-	-	-
Stage 2	85	78	-	86	79	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	801	735	998	801	735	994	1536	-	-	1531	-	-
Stage 1	930	829	-	931	830	-	-	-	-	-	-	-
Stage 2	923	830	-	922	829	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	785	729	998	785	729	994	1536	-	-	1531	-	-
Mov Capacity-2 Maneuver	785	729	-	785	729	-	-	-	-	-	-	-
Stage 1	927	825	-	928	828	-	-	-	-	-	-	-
Stage 2	906	828	-	903	825	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	9.5	0.4	0.7
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1536	-	-	833	812	1531	-	-
HCM Lane V/C Ratio	0.003	-	-	0.023	0.017	0.004	-	-
HCM Control Delay (s)	7.35	0	-	9.4	9.5	7.361	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.009	-	-	0.072	0.053	0.013	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	20	16	0	14	1	14	115	3	2	101	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	22	17	0	15	1	15	125	3	2	110	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	281	275	111	292	274	127	113	0	0	128	0	0
Stage 1	116	116	-	157	157	-	-	-	-	-	-	-
Stage 2	165	159	-	135	117	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	671	632	942	660	633	923	1476	-	-	1458	-	-
Stage 1	889	800	-	845	768	-	-	-	-	-	-	-
Stage 2	837	766	-	868	799	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	652	624	942	625	625	923	1476	-	-	1458	-	-
Mov Capacity-2 Maneuver	652	624	-	625	625	-	-	-	-	-	-	-
Stage 1	879	799	-	836	760	-	-	-	-	-	-	-
Stage 2	810	758	-	828	798	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	10.8	0.8	0.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1476	-	-	725	639	1458	-	-
HCM Lane V/C Ratio	0.01	-	-	0.06	0.026	0.001	-	-
HCM Control Delay (s)	7.464	0	-	10.3	10.8	7.473	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.031	-	-	0.191	0.078	0.004	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	17	28	10	10	14	37	318	22	13	429	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	18	30	11	11	15	40	346	24	14	466	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	955	954	476	966	951	358	485	0	0	370	0	0
Stage 1	504	504	-	438	438	-	-	-	-	-	-	-
Stage 2	451	450	-	528	513	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	238	259	589	234	260	686	1078	-	-	1189	-	-
Stage 1	550	541	-	597	579	-	-	-	-	-	-	-
Stage 2	588	572	-	534	536	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	214	243	589	199	244	686	1078	-	-	1189	-	-
Mov Capacity-2 Maneuver	214	243	-	199	244	-	-	-	-	-	-	-
Stage 1	524	532	-	569	552	-	-	-	-	-	-	-
Stage 2	537	545	-	481	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.9	18.4	0.8	0.2
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1078	-	-	338	305	1189	-	-
HCM Lane V/C Ratio	0.037	-	-	0.174	0.121	0.012	-	-
HCM Control Delay (s)	8.469	0	-	17.9	18.4	8.064	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.116	-	-	0.619	0.409	0.036	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	27	54	5	34	14	41	215	20	27	330	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	29	59	5	37	15	45	234	22	29	359	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	783	768	364	801	762	245	370	0	0	255	0	0
Stage 1	423	423	-	334	334	-	-	-	-	-	-	-
Stage 2	360	345	-	467	428	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	311	332	681	303	335	794	1189	-	-	1310	-	-
Stage 1	609	588	-	680	643	-	-	-	-	-	-	-
Stage 2	658	636	-	576	585	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	263	309	681	243	311	794	1189	-	-	1310	-	-
Mov Capacity-2 Maneuver	263	309	-	243	311	-	-	-	-	-	-	-
Stage 1	582	572	-	650	615	-	-	-	-	-	-	-
Stage 2	580	608	-	485	569	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	16.9	1.2	0.6
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1189	-	-	448	359	1310	-	-
HCM Lane V/C Ratio	0.037	-	-	0.218	0.16	0.022	-	-
HCM Control Delay (s)	8.146	0	-	15.3	16.9	7.811	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.117	-	-	0.823	0.565	0.069	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	13	20	32	188	189	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	22	35	204	205	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	492	218	230	0	-	0
Stage 1	218	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	536	822	1338	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	520	822	1338	-	-	-
Mov Capacity-2 Maneuver	520	-	-	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	1.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1338	-	669	-	-
HCM Lane V/C Ratio	0.026	-	0.054	-	-
HCM Control Delay (s)	7.762	0	10.7	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.08	-	0.17	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	9	12	14	210	200	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	13	15	228	217	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	482	223	229	0	-	0
Stage 1	223	-	-	-	-	-
Stage 2	259	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	543	817	1339	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	536	817	1339	-	-	-
Mov Capacity-2 Maneuver	536	-	-	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	774	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.5	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1339	-	667	-	-
HCM Lane V/C Ratio	0.011	-	0.034	-	-
HCM Control Delay (s)	7.719	0	10.6	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.034	-	0.106	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	11	4	2	19	4	5	20	8	0	23	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	12	4	2	21	4	5	22	9	0	25	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	76	68	27	72	65	26	28	0	0	30	0	0
Stage 1	27	27	-	37	37	-	-	-	-	-	-	-
Stage 2	49	41	-	35	28	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	914	823	1048	919	826	1050	1585	-	-	1583	-	-
Stage 1	990	873	-	978	864	-	-	-	-	-	-	-
Stage 2	964	861	-	981	872	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	891	821	1048	903	824	1050	1585	-	-	1583	-	-
Mov Capacity-2 Maneuver	891	821	-	903	824	-	-	-	-	-	-	-
Stage 1	987	873	-	975	861	-	-	-	-	-	-	-
Stage 2	934	858	-	964	872	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	9.3	1.1	0
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1585	-	-	877	860	1583	-	-
HCM Lane V/C Ratio	0.003	-	-	0.027	0.032	-	-	-
HCM Control Delay (s)	7.279	0	-	9.2	9.3	0	-	-
HCM Lane LOS	A	A		A	A	A		
HCM 95th %tile Q(veh)	0.01	-	-	0.084	0.098	0	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	26	5	5	25	9	8	35	14	9	52	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	28	5	5	27	10	9	38	15	10	57	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.4	7.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	14%	13%	14%
Vol Thru, %	61%	72%	64%	79%
Vol Right, %	25%	14%	23%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	36	39	66
LT Vol	35	26	25	52
Through Vol	14	5	9	5
RT Vol	8	5	5	9
Lane Flow Rate	62	39	42	72
Geometry Grp	1	1	1	1
Degree of Util (X)	0.069	0.045	0.048	0.082
Departure Headway (Hd)	4.012	4.143	4.083	4.106
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	886	855	867	867
Service Time	2.067	2.214	2.154	2.157
HCM Lane V/C Ratio	0.07	0.046	0.048	0.083
HCM Control Delay	7.4	7.4	7.4	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.2	0.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	24	5	12	23	19	5	257	21	37	357	20
Conflicting Peds, #/hr	0	0	3	3	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	30	-	-	50	-	-	74	-	-	71	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	-2	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	4	2	2	2	2	2	3	2
Mvmt Flow	12	26	5	13	25	21	5	279	23	40	388	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	809	798	412	803	798	304	413	0	0	305	0	0
Stage 1	482	482	-	305	305	-	-	-	-	-	-	-
Stage 2	327	316	-	498	493	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.036	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	428	455	701	264	277	717	1146	-	-	1256	-	-
Stage 1	701	685	-	670	626	-	-	-	-	-	-	-
Stage 2	793	754	-	510	501	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	371	436	694	241	266	709	1137	-	-	1245	-	-
Mov Capacity-2 Maneuver	371	436	-	241	266	-	-	-	-	-	-	-
Stage 1	696	661	-	665	622	-	-	-	-	-	-	-
Stage 2	729	749	-	467	484	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	17.3	0.1	0.7
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1137	-	-	371	453	241	354	1245	-	-
HCM Lane V/C Ratio	0.005	-	-	0.021	0.078	0.036	0.141	0.032	-	-
HCM Control Delay (s)	8.181	-	-	14.9	13.6	20.5	16.8	7.988	-	-
HCM Lane LOS	A			B	B	C	C	A		
HCM 95th %tile Q(veh)	0.014	-	-	0.066	0.254	0.112	0.487	0.1	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	28	14	53	18	1	19	217	10	7	165	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	30	15	58	20	1	21	236	11	8	179	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.9	9.7	9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	11%	74%	4%
Vol Thru, %	88%	60%	25%	94%
Vol Right, %	4%	30%	1%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	47	72	175
LT Vol	217	28	18	165
Through Vol	10	14	1	3
RT Vol	19	5	53	7
Lane Flow Rate	267	51	78	190
Geometry Grp	1	1	1	1
Degree of Util (X)	0.332	0.07	0.113	0.241
Departure Headway (Hd)	4.469	4.924	5.177	4.556
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	805	724	690	788
Service Time	2.5	2.974	3.224	2.591
HCM Lane V/C Ratio	0.332	0.07	0.113	0.241
HCM Control Delay	9.7	8.3	8.9	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.5	0.2	0.4	0.9

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	44	69	38	3	8	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	75	41	3	9	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	45	0	-	0	214	43
Stage 1	-	-	-	-	43	-
Stage 2	-	-	-	-	171	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1563	-	-	-	774	1027
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	859	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1563	-	-	-	749	1027
Mov Capacity-2 Maneuver	-	-	-	-	749	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	8.9
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1563	-	-	-	962
HCM Lane V/C Ratio	0.031	-	-	-	0.05
HCM Control Delay (s)	7.376	0	-	-	8.9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.095	-	-	-	0.157

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	4	7	6	6	175	5	3	183	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	4	8	7	7	190	5	3	199	63

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	450	446	230	443	474	193	262	0	0	196	0	0
Stage 1	237	237	-	206	206	-	-	-	-	-	-	-
Stage 2	213	209	-	237	268	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	519	507	809	525	489	849	1302	-	-	1377	-	-
Stage 1	766	709	-	796	731	-	-	-	-	-	-	-
Stage 2	789	729	-	766	687	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	505	502	809	521	485	849	1302	-	-	1377	-	-
Mov Capacity-2 Maneuver	505	502	-	521	485	-	-	-	-	-	-	-
Stage 1	761	707	-	791	727	-	-	-	-	-	-	-
Stage 2	770	725	-	764	685	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	11.4	0.3	0.1
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1302	-	-	0	583	1377	-	-
HCM Lane V/C Ratio	0.005	-	-	+	0.032	0.002	-	-
HCM Control Delay (s)	7.779	0	-	0	11.4	7.621	0	-
HCM Lane LOS	A	A		A	B	A	A	
HCM 95th %tile Q(veh)	0.015	-	-	+	0.098	0.007	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	10.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	97	4	17	3	5	4	11	91	2	4	153	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	105	4	18	3	5	4	12	99	2	4	166	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	23	0	0	340	240	14	289	248	8
Stage 1	-	-	-	-	-	-	224	224	-	14	14	-
Stage 2	-	-	-	-	-	-	116	16	-	275	234	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1610	-	-	1592	-	-	614	661	1066	663	655	1074
Stage 1	-	-	-	-	-	-	779	718	-	1006	884	-
Stage 2	-	-	-	-	-	-	889	882	-	731	711	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1610	-	-	1592	-	-	445	616	1066	551	611	1074
Mov Capacity-2 Maneuver	-	-	-	-	-	-	445	616	-	551	611	-
Stage 1	-	-	-	-	-	-	728	671	-	940	882	-
Stage 2	-	-	-	-	-	-	694	880	-	581	664	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.1	1.8	12.4	12.9
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	597	1610	-	-	1592	-	-	661
HCM Lane V/C Ratio	0.189	0.065	-	-	0.002	-	-	0.316
HCM Control Delay (s)	12.4	7.393	0	-	7.266	0	-	12.9
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.693	0.21	-	-	0.006	-	-	1.352

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	21	26	116	22	15	13	49	386	83	14	425	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	28	126	24	16	14	53	420	90	15	462	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1087	1124	478	1093	1095	465	493	0	0	510	0	0
Stage 1	508	508	-	571	571	-	-	-	-	-	-	-
Stage 2	579	616	-	522	524	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	194	205	587	192	214	597	1071	-	-	1055	-	-
Stage 1	547	539	-	506	505	-	-	-	-	-	-	-
Stage 2	501	482	-	538	530	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	169	192	587	127	201	597	1071	-	-	1055	-	-
Mov Capacity-2 Maneuver	169	192	-	127	201	-	-	-	-	-	-	-
Stage 1	520	531	-	481	480	-	-	-	-	-	-	-
Stage 2	449	458	-	394	522	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.5	31.3	0.8	0.3
HCM LOS	C	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1071	-	-	263	587	162	597	1055	-	-
HCM Lane V/C Ratio	0.05	-	-	0.354	0.143	0.277	0.016	0.014	-	-
HCM Control Delay (s)	8.537	-	-	26	12.2	35.5	11.1	8.462	-	-
HCM Lane LOS	A			D	B	E	B	A		
HCM 95th %tile Q(veh)	0.157	-	-	1.534	0.497	1.073	0.048	0.044	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	17	52	13	9	36	40	4	156	18	88	210	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	57	14	10	39	43	4	170	20	96	228	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	656	625	236	651	623	179	243	0	0	189	0	0
Stage 1	427	427	-	188	188	-	-	-	-	-	-	-
Stage 2	229	198	-	463	435	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	379	401	803	382	402	864	1323	-	-	1385	-	-
Stage 1	606	585	-	814	745	-	-	-	-	-	-	-
Stage 2	774	737	-	579	580	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	310	368	803	311	369	864	1323	-	-	1385	-	-
Mov Capacity-2 Maneuver	310	368	-	311	369	-	-	-	-	-	-	-
Stage 1	604	538	-	812	743	-	-	-	-	-	-	-
Stage 2	694	735	-	468	534	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.1	14	0.2	2.2
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1323	-	-	386	492	1385	-	-
HCM Lane V/C Ratio	0.003	-	-	0.231	0.188	0.069	-	-
HCM Control Delay (s)	7.73	0	-	17.1	14	7.792	0	-
HCM Lane LOS	A	A		C	B	A	A	
HCM 95th %tile Q(veh)	0.01	-	-	0.88	0.684	0.222	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	7	40	8	8	38	19	8	81	8	33	168	14
Conflicting Peds, #/hr	29	0	4	4	0	29	2	0	4	4	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	6	-	-	-2	-	-	5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	2	2	2	2	2	2	2	7	2	9
Mvmt Flow	8	43	9	9	41	21	9	88	9	36	183	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	461	434	223	456	438	125	227	0	0	126	0	0
Stage 1	291	291	-	139	139	-	-	-	-	-	-	-
Stage 2	170	143	-	317	299	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.126	3.318	3.518	4.018	3.318	2.218	-	-	2.263	-	-
Pot Capacity-1 Maneuver	566	548	837	442	443	906	1341	-	-	1430	-	-
Stage 1	765	694	-	825	746	-	-	-	-	-	-	-
Stage 2	864	781	-	625	603	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	481	498	812	383	403	873	1336	-	-	1424	-	-
Mov Capacity-2 Maneuver	481	498	-	383	403	-	-	-	-	-	-	-
Stage 1	740	657	-	793	717	-	-	-	-	-	-	-
Stage 2	786	751	-	559	571	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	13.9	0.6	1.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1336	-	-	525	475	1424	-	-
HCM Lane V/C Ratio	0.007	-	-	0.114	0.149	0.025	-	-
HCM Control Delay (s)	7.712	0	-	12.7	13.9	7.593	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.02	-	-	0.383	0.519	0.077	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	1	1	51	1	30	1	177	7	10	329	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	-3	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	14	25	2	2	2	11	2	2	2
Mvmt Flow	0	1	1	55	1	33	1	192	8	11	358	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	595	582	358	579	578	196	359	0	0	200	0	0
Stage 1	380	380	-	198	198	-	-	-	-	-	-	-
Stage 2	215	202	-	381	380	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.626	4.225	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	459	468	707	396	384	841	1200	-	-	1372	-	-
Stage 1	684	654	-	768	688	-	-	-	-	-	-	-
Stage 2	816	759	-	605	564	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	437	463	707	391	380	841	1200	-	-	1372	-	-
Mov Capacity-2 Maneuver	437	463	-	391	380	-	-	-	-	-	-	-
Stage 1	683	647	-	767	687	-	-	-	-	-	-	-
Stage 2	782	758	-	597	558	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	14.1	0	0.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1200	-	-	560	486	1372	-	-
HCM Lane V/C Ratio	0.001	-	-	0.004	0.183	0.008	-	-
HCM Control Delay (s)	8.003	0	-	11.5	14.1	7.645	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.003	-	-	0.012	0.665	0.024	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	12	37	47	15	25	12	14	163	2	16	339	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-3	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	40	51	16	27	13	15	177	2	17	368	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	642	623	378	668	632	178	388	0	0	179	0	0
Stage 1	413	413	-	209	209	-	-	-	-	-	-	-
Stage 2	229	210	-	459	423	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	387	402	669	372	398	865	1170	-	-	1397	-	-
Stage 1	616	594	-	793	729	-	-	-	-	-	-	-
Stage 2	774	728	-	582	588	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	353	390	669	309	386	865	1170	-	-	1397	-	-
Mov Capacity-2 Maneuver	353	390	-	309	386	-	-	-	-	-	-	-
Stage 1	607	584	-	782	719	-	-	-	-	-	-	-
Stage 2	723	718	-	493	579	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	15.2	0.6	0.3
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	482	409	1397	-	-
HCM Lane V/C Ratio	0.013	-	-	0.216	0.138	0.012	-	-
HCM Control Delay (s)	8.117	0	-	14.5	15.2	7.609	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.04	-	-	0.815	0.476	0.038	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	8	0	117	0	0	0	32	507	0	1	576	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	54	-	-	-	-	-	52	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	0	127	0	0	0	35	551	0	1	626	21

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	984	1260	323				647	0	0	551	0	0
Stage 1	639	639	-				-	-	-	-	-	-
Stage 2	345	621	-				-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32				2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	246	169	673				934	-	-	1015	-	-
Stage 1	488	469	-				-	-	-	-	-	-
Stage 2	688	477	-				-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	232	0	673				934	-	-	1015	-	-
Mov Capacity-2 Maneuver	232	0	-				-	-	-	-	-	-
Stage 1	487	0	-				-	-	-	-	-	-
Stage 2	651	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0.6	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	934	-	-	508	673	1015	-	-
HCM Lane V/C Ratio	0.037	-	-	0.101	0.126	0.001	-	-
HCM Control Delay (s)	9.003	0.1	-	12.9	11.1	8.551	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.116	-	-	0.333	0.43	0.003	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	11.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	58	128	0	0	42	93	2	6	9	165	2	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	86	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	139	0	0	46	101	2	7	10	179	2	61

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	480	412	33	477	438	11	63	0	0	16	0	0
Stage 1	391	391	-	16	16	-	-	-	-	-	-	-
Stage 2	89	21	-	461	422	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	496	530	1041	498	512	1070	1540	-	-	1602	-	-
Stage 1	633	607	-	1004	882	-	-	-	-	-	-	-
Stage 2	918	878	-	581	588	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	379	470	1041	353	454	1070	1540	-	-	1602	-	-
Mov Capacity-2 Maneuver	379	470	-	353	454	-	-	-	-	-	-	-
Stage 1	632	539	-	1003	881	-	-	-	-	-	-	-
Stage 2	787	877	-	383	522	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.1	10.9	0.9	5.6
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1540	-	-	437	752	1602	-	-
HCM Lane V/C Ratio	0.001	-	-	0.463	0.195	0.112	-	-
HCM Control Delay (s)	7.341	0	-	20.1	10.9	7.53	-	-
HCM Lane LOS	A	A		C	B	A		
HCM 95th %tile Q(veh)	0.004	-	-	2.389	0.72	0.377	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	68	94	6	0	79	20	3	0	0	93	3	81
Conflicting Peds, #/hr	2	0	3	3	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	4	-	-	-6	-	-	7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	2	3
Mvmt Flow	74	102	7	0	86	22	3	0	0	101	3	88

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	315	262	50	317	306	3	94	0	0	3	0	0
Stage 1	252	252	-	10	10	-	-	-	-	-	-	-
Stage 2	63	10	-	307	296	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Capacity-1 Maneuver	708	702	1027	592	568	1081	1500	-	-	1593	-	-
Stage 1	818	760	-	1009	885	-	-	-	-	-	-	-
Stage 2	968	890	-	657	626	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	574	649	1024	489	525	1076	1500	-	-	1593	-	-
Mov Capacity-2 Maneuver	574	649	-	489	525	-	-	-	-	-	-	-
Stage 1	814	707	-	1003	880	-	-	-	-	-	-	-
Stage 2	854	885	-	521	583	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	12.5	7.4	3.9
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1500	-	-	624	586	1593	-	-
HCM Lane V/C Ratio	0.002	-	-	0.293	0.184	0.063	-	-
HCM Control Delay (s)	7.405	0	-	13.1	12.5	7.413	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.007	-	-	1.214	0.667	0.203	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	26	151	4	1	162	1	3	2	9	14	2	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	164	4	1	176	1	3	2	10	15	2	50

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	177	0	0	168	0	0	428	402	166	408	404	177
Stage 1	-	-	-	-	-	-	223	223	-	179	179	-
Stage 2	-	-	-	-	-	-	205	179	-	229	225	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1399	-	-	1410	-	-	537	537	878	554	536	866
Stage 1	-	-	-	-	-	-	780	719	-	823	751	-
Stage 2	-	-	-	-	-	-	797	751	-	774	718	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1399	-	-	1410	-	-	496	526	878	537	525	866
Mov Capacity-2 Maneuver	-	-	-	-	-	-	496	526	-	537	525	-
Stage 1	-	-	-	-	-	-	764	705	-	807	750	-
Stage 2	-	-	-	-	-	-	748	750	-	748	704	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0	10.3	10.3
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	696	1399	-	-	1410	-	-	747
HCM Lane V/C Ratio	0.022	0.02	-	-	0.001	-	-	0.09
HCM Control Delay (s)	10.3	7.626	-	-	7.555	0	-	10.3
HCM Lane LOS	B	A			A	A		B
HCM 95th %tile Q(veh)	0.067	0.062	-	-	0.002	-	-	0.296

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	100	69	63	151	2	75	29	29	2	11	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	109	75	68	164	2	82	32	32	2	12	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	166	0	0	184	0	0	466	460	146	491	497	165
Stage 1	-	-	-	-	-	-	157	157	-	302	302	-
Stage 2	-	-	-	-	-	-	309	303	-	189	195	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1412	-	-	1391	-	-	507	498	901	488	475	879
Stage 1	-	-	-	-	-	-	845	768	-	707	664	-
Stage 2	-	-	-	-	-	-	701	664	-	813	739	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1412	-	-	1391	-	-	474	469	901	427	448	879
Mov Capacity-2 Maneuver	-	-	-	-	-	-	474	469	-	427	448	-
Stage 1	-	-	-	-	-	-	842	765	-	704	628	-
Stage 2	-	-	-	-	-	-	649	628	-	749	736	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.3	14.4	12.8
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	527	1412	-	-	1391	-	-	476
HCM Lane V/C Ratio	0.274	0.004	-	-	0.049	-	-	0.034
HCM Control Delay (s)	14.4	7.559	0	-	7.722	0	-	12.8
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	1.108	0.012	-	-	0.155	-	-	0.106

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	2	2	172	0	54	3	148	86	89	277	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Yield	Yield	Yield	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	7	-	-	-4	-	-	8	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	33	2	14	2	33	2	2	6	2	6	2	2
Mvmt Flow	0	2	2	187	0	59	3	161	93	97	301	1

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	554	433	0	530	403	29
Stage 1	-	-	-	0	0	-	403	403	-
Stage 2	-	-	-	554	433	-	127	0	-
Follow-up Headway	-	-	-	3.518	4.054	-	3.554	4.018	3.318
Pot Capacity-1 Maneuver	-	-	-	346	420	-	481	561	1048
Stage 1	-	-	-	-	-	-	644	627	-
Stage 2	-	-	-	404	474	-	-	-	-
Time blocked-Platoon, %		-	-						
Mov Capacity-1 Maneuver	-	-	-	199	420	-	-	561	1048
Mov Capacity-2 Maneuver	-	-	-	199	420	-	-	561	-
Stage 1	-	-	-	-	-	-	644	627	-
Stage 2	-	-	-	210	474	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	+	+
HCM LOS		-	-

Minor Lane / Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	-	-	-	+
HCM Lane V/C Ratio	+	-	-	-	+
HCM Control Delay (s)	+	-	-	-	+
HCM Lane LOS	+				+
HCM 95th %tile Q(veh)	+	-	-	-	+

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	16	6	163	22	6	3	12	172	4	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	17	7	177	24	7	3	13	187	4	25	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	162	241	25	159	147	107	25	0	0	200	0	0
Stage 1	34	34	-	113	113	-	-	-	-	-	-	-
Stage 2	128	207	-	46	34	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	803	660	1051	807	744	947	1589	-	-	1372	-	-
Stage 1	982	867	-	892	802	-	-	-	-	-	-	-
Stage 2	876	731	-	968	867	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	775	657	1051	783	740	947	1589	-	-	1372	-	-
Mov Capacity-2 Maneuver	775	657	-	783	740	-	-	-	-	-	-	-
Stage 1	980	864	-	890	800	-	-	-	-	-	-	-
Stage 2	842	730	-	940	864	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	11.3	0.1	1.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1589	-	-	734	782	1372	-	-
HCM Lane V/C Ratio	0.002	-	-	0.034	0.265	0.003	-	-
HCM Control Delay (s)	7.27	0	-	10.1	11.3	7.632	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.006	-	-	0.106	1.068	0.01	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	0	0	5	6	12	0	84	5	14	108	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	0	5	7	13	0	91	5	15	117	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	255	248	121	245	248	94	124	0	0	97	0	0
Stage 1	151	151	-	94	94	-	-	-	-	-	-	-
Stage 2	104	97	-	151	154	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	698	655	930	709	655	963	1463	-	-	1496	-	-
Stage 1	851	772	-	913	817	-	-	-	-	-	-	-
Stage 2	902	815	-	851	770	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	678	648	930	703	648	963	1463	-	-	1496	-	-
Mov Capacity-2 Maneuver	678	648	-	703	648	-	-	-	-	-	-	-
Stage 1	851	764	-	913	817	-	-	-	-	-	-	-
Stage 2	883	815	-	842	762	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	9.7	0	0.8
HCM LOS	B	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	678	798	1496	-	-
HCM Lane V/C Ratio	-	-	-	0.005	0.031	0.01	-	-
HCM Control Delay (s)	0	-	-	10.3	9.7	7.431	0	-
HCM Lane LOS	A			B	A	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.014	0.097	0.031	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	20	0	9	24	11	1	28	10	18	22	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	22	0	10	26	12	1	30	11	20	24	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	22	0	0	107	93	22	107	87	32
Stage 1	-	-	-	-	-	-	35	35	-	52	52	-
Stage 2	-	-	-	-	-	-	72	58	-	55	35	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1572	-	-	1593	-	-	872	797	1055	872	803	1042
Stage 1	-	-	-	-	-	-	981	866	-	961	852	-
Stage 2	-	-	-	-	-	-	938	847	-	957	866	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1572	-	-	1593	-	-	831	788	1055	831	794	1042
Mov Capacity-2 Maneuver	-	-	-	-	-	-	831	788	-	831	794	-
Stage 1	-	-	-	-	-	-	976	862	-	956	847	-
Stage 2	-	-	-	-	-	-	891	842	-	909	862	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	1.5	9.5	9.5
HCM LOS			A	A

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	844	1572	-	-	1593	-	-	865
HCM Lane V/C Ratio	0.05	0.004	-	-	0.006	-	-	0.07
HCM Control Delay (s)	9.5	7.3	0	-	7.274	0	-	9.5
HCM Lane LOS	A	A	A		A	A		A
HCM 95th %tile Q(veh)	0.158	0.012	-	-	0.019	-	-	0.227

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	18	16	12	15	19	27	13	131	9	32	183	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	17	13	16	21	29	14	142	10	35	199	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	477	456	206	467	459	147	213	0	0	152	0	0
Stage 1	276	276	-	176	176	-	-	-	-	-	-	-
Stage 2	201	180	-	291	283	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	498	501	835	506	499	900	1357	-	-	1429	-	-
Stage 1	730	682	-	826	753	-	-	-	-	-	-	-
Stage 2	801	750	-	717	677	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	452	482	835	470	480	900	1357	-	-	1429	-	-
Mov Capacity-2 Maneuver	452	482	-	470	480	-	-	-	-	-	-	-
Stage 1	722	663	-	817	745	-	-	-	-	-	-	-
Stage 2	745	742	-	668	658	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	11.7	0.7	1.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1357	-	-	526	601	1429	-	-
HCM Lane V/C Ratio	0.01	-	-	0.095	0.11	0.024	-	-
HCM Control Delay (s)	7.681	0	-	12.6	11.7	7.582	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.032	-	-	0.313	0.37	0.075	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	2	48	7	3	36	17	723	1	36	1114	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	340	-	-	99	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	2	52	8	3	39	18	786	1	39	1211	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1734	2126	618	1508	2137	393	1236	0	0	787	0	0
Stage 1	1302	1302	-	823	823	-	-	-	-	-	-	-
Stage 2	432	824	-	685	1314	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	56	49	432	83	48	606	559	-	-	828	-	-
Stage 1	170	229	-	334	386	-	-	-	-	-	-	-
Stage 2	572	385	-	404	226	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	47	45	432	66	44	606	559	-	-	828	-	-
Mov Capacity-2 Maneuver	47	45	-	66	44	-	-	-	-	-	-	-
Stage 1	165	218	-	323	374	-	-	-	-	-	-	-
Stage 2	513	373	-	335	215	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.7	29.4	0.3	0.3
HCM LOS	D	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	559	-	-	224	197	828	-	-
HCM Lane V/C Ratio	0.033	-	-	0.262	0.254	0.047	-	-
HCM Control Delay (s)	11.66	-	-	26.7	29.4	9.563	-	-
HCM Lane LOS	B			D	D	A		
HCM 95th %tile Q(veh)	0.102	-	-	1.015	0.969	0.149	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Vol, veh/h	6	0	1	12	0	21	0	120	28	31	159	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	1	13	0	23	0	130	30	34	173	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	398	402	173	387	387	146	174	0	0	161	0	0
Stage 1	241	241	-	146	146	-	-	-	-	-	-	-
Stage 2	157	161	-	241	241	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	562	537	871	572	547	901	1403	-	-	1418	-	-
Stage 1	762	706	-	857	776	-	-	-	-	-	-	-
Stage 2	845	765	-	762	706	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	536	523	871	560	532	901	1403	-	-	1418	-	-
Mov Capacity-2 Maneuver	536	523	-	560	532	-	-	-	-	-	-	-
Stage 1	762	687	-	857	776	-	-	-	-	-	-	-
Stage 2	824	765	-	741	687	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	11.4	10.1	0	1.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1403	-	-	738	567	1418	-	-
HCM Lane V/C Ratio	-	-	-	0.049	0.013	0.024	-	-
HCM Control Delay (s)	0	-	-	10.1	11.4	7.601	0	-
HCM Lane LOS	A			B	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.153	0.041	0.073	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	100	4	12	81	142	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	4	13	88	154	95

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	316	202	249	0	-	0
Stage 1	202	-	-	-	-	-
Stage 2	114	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	677	839	1317	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	670	839	1317	-	-	-
Mov Capacity-2 Maneuver	670	-	-	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	11.4	1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1317	-	675	-	-
HCM Lane V/C Ratio	0.01	-	0.167	-	-
HCM Control Delay (s)	7.761	0	11.4	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.03	-	0.598	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	32	111	86	8	5	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	121	93	9	5	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	102	0	-	0	288	98
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	190	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1490	-	-	-	702	958
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	842	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1490	-	-	-	684	958
Mov Capacity-2 Maneuver	-	-	-	-	684	-
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	821	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	9.2
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1490	-	-	-	900
HCM Lane V/C Ratio	0.023	-	-	-	0.037
HCM Control Delay (s)	7.474	0	-	-	9.2
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.072	-	-	-	0.117

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Vol, veh/h	212	54	25	390	113	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	1000	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	6	40	18	28	25
Mvmt Flow	230	59	27	424	123	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	289	0	526	145
Stage 1	-	-	-	-	260	-
Stage 2	-	-	-	-	266	-
Follow-up Headway	-	-	2.6	-	3.78	3.55
Pot Capacity-1 Maneuver	-	-	1035	-	399	801
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	662	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1035	-	389	801
Mov Capacity-2 Maneuver	-	-	-	-	389	-
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	645	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0.5	18.1
HCM LOS			C

Minor Lane / Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	1035	-	408
HCM Lane V/C Ratio	-	-	0.026	-	0.33
HCM Control Delay (s)	-	-	8.572	-	18.1
HCM Lane LOS			A		C
HCM 95th %tile Q(veh)	-	-	0.081	-	1.421

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	14	0	14	28	27	67	6	189	0	0	324	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	84	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	15	30	29	73	7	205	0	0	352	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	630	578	360	586	586	205	368	0	0	205	0	0
Stage 1	360	360	-	218	218	-	-	-	-	-	-	-
Stage 2	270	218	-	368	368	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	394	427	684	422	422	836	1191	-	-	1366	-	-
Stage 1	658	626	-	784	723	-	-	-	-	-	-	-
Stage 2	736	723	-	652	621	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	339	424	684	410	419	836	1191	-	-	1366	-	-
Mov Capacity-2 Maneuver	339	424	-	410	419	-	-	-	-	-	-	-
Stage 1	653	626	-	779	718	-	-	-	-	-	-	-
Stage 2	640	718	-	637	621	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	12.4	0.2	0
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1191	-	-	453	410	617	1366	-	-
HCM Lane V/C Ratio	0.005	-	-	0.067	0.049	0.182	-	-	-
HCM Control Delay (s)	8.039	0	-	13.5	14.2	12.1	0	-	-
HCM Lane LOS	A	A		B	B	B	A		
HCM 95th %tile Q(veh)	0.017	-	-	0.215	0.156	0.661	0	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	61	28	115	11	26	28	80	346	29	18	467	112
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	108	-	-	60	-	-	120	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	2	2	14	18	2	2	4	2	2	3	7
Mvmt Flow	66	30	125	12	28	30	87	376	32	20	508	122

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1205	1192	571	1253	1236	395	630	0	0	409	0	0
Stage 1	609	609	-	567	567	-	-	-	-	-	-	-
Stage 2	596	583	-	686	669	-	-	-	-	-	-	-
Follow-up Headway	3.644	4.018	3.318	3.626	4.162	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	151	187	520	141	164	654	952	-	-	1150	-	-
Stage 1	459	485	-	488	482	-	-	-	-	-	-	-
Stage 2	467	499	-	419	432	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	112	167	518	84	146	652	950	-	-	1147	-	-
Mov Capacity-2 Maneuver	112	167	-	84	146	-	-	-	-	-	-	-
Stage 1	417	476	-	443	437	-	-	-	-	-	-	-
Stage 2	377	453	-	292	424	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	40.3	30.7	1.6	0.2
HCM LOS	E	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	950	-	-	112	286	84	218	1147	-	-
HCM Lane V/C Ratio	0.092	-	-	0.395	0.621	0.095	0.288	0.017	-	-
HCM Control Delay (s)	9.171	-	-	56.7	36.2	52.3	28	8.193	-	-
HCM Lane LOS	A			F	E	F	D	A		
HCM 95th %tile Q(veh)	0.301	-	-	1.639	3.829	0.305	1.143	0.052	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	31	14	105	24	10	53	30	386	7	58	443	76
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	6	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	15	114	26	11	58	33	420	8	63	482	83

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	929	1141	282	863	1179	214	564	0	0	427	0	0
Stage 1	649	649	-	489	489	-	-	-	-	-	-	-
Stage 2	280	492	-	374	690	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	222	199	715	248	189	791	1004	-	-	1129	-	-
Stage 1	425	464	-	529	548	-	-	-	-	-	-	-
Stage 2	703	546	-	619	444	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	178	175	715	177	166	791	1004	-	-	1129	-	-
Mov Capacity-2 Maneuver	178	175	-	177	166	-	-	-	-	-	-	-
Stage 1	407	426	-	506	524	-	-	-	-	-	-	-
Stage 2	611	523	-	460	408	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.9	20.2	0.8	1.1
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1004	-	-	374	331	1129	-	-
HCM Lane V/C Ratio	0.032	-	-	0.436	0.286	0.056	-	-
HCM Control Delay (s)	8.706	0.2	-	21.9	20.2	8.377	0.3	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.101	-	-	2.144	1.155	0.177	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	142	0	101	0	0	2	41	309	0	2	462	212
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	244	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	154	0	110	0	0	2	45	336	0	2	502	230

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	879	1047	366	680	1162	168	733	0	0	336	0	0
Stage 1	622	622	-	425	425	-	-	-	-	-	-	-
Stage 2	257	425	-	255	737	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	242	227	631	337	194	847	868	-	-	1220	-	-
Stage 1	441	477	-	578	585	-	-	-	-	-	-	-
Stage 2	725	585	-	727	423	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	229	212	631	264	181	847	868	-	-	1220	-	-
Mov Capacity-2 Maneuver	229	212	-	264	181	-	-	-	-	-	-	-
Stage 1	413	476	-	541	548	-	-	-	-	-	-	-
Stage 2	677	548	-	599	422	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.1	9.3	1.3	0
HCM LOS	D	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	868	-	-	229	631	847	1220	-	-
HCM Lane V/C Ratio	0.051	-	-	0.674	0.174	0.003	0.002	-	-
HCM Control Delay (s)	9.372	0.2	-	48.1	11.9	9.3	7.956	0	-
HCM Lane LOS	A	A		E	B	A	A	A	
HCM 95th %tile Q(veh)	0.162	-	-	4.259	0.626	0.008	0.005	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	38	53	19	62	78	17	34	242	39	34	459	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	5	8	12	2	2	2	2	8	2	15	19
Mvmt Flow	41	58	21	67	85	18	37	263	42	37	499	67
Number of Lanes	1	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	12.2	12.7	13.1	18.2
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	67%	0%	74%	0%	82%	0%	100%	71%
Vol Right, %	0%	0%	33%	0%	26%	0%	18%	0%	0%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	161	120	38	72	62	95	34	306	215
LT Vol	0	161	81	0	53	0	78	0	306	153
Through Vol	0	0	39	0	19	0	17	0	0	62
RT Vol	34	0	0	38	0	62	0	34	0	0
Lane Flow Rate	37	175	130	41	78	67	103	37	333	234
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.08	0.356	0.259	0.098	0.171	0.159	0.221	0.074	0.644	0.437
Departure Headway (Hd)	7.809	7.3	7.172	8.52	7.864	8.496	7.695	7.257	6.974	6.872
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	460	493	502	421	457	423	467	494	519	528
Service Time	5.542	5.033	4.905	6.258	5.602	6.232	5.431	4.992	4.708	4.572
HCM Lane V/C Ratio	0.08	0.355	0.259	0.097	0.171	0.158	0.221	0.075	0.642	0.443
HCM Control Delay	11.2	14	12.4	12.2	12.2	12.8	12.6	10.6	21.5	14.8
HCM Lane LOS	B	B	B	B	B	B	B	B	C	B
HCM 95th-tile Q	0.3	1.6	1	0.3	0.6	0.6	0.8	0.2	4.5	2.2

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	3	0	4	1	82	0	213	6	127	410	2
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	42	45	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	5	-	-	1	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	2	2	2	2	6	2	3	13	38
Mvmt Flow	1	3	0	4	1	89	0	232	7	138	446	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	841	963	228	738	961	123	449	0	0	239	0	0
Stage 1	724	724	-	236	236	-	-	-	-	-	-	-
Stage 2	117	239	-	502	725	-	-	-	-	-	-	-
Follow-up Headway	3.62	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.23	-	-
Pot Capacity-1 Maneuver	278	298	790	249	195	890	1108	-	-	1318	-	-
Stage 1	407	484	-	699	664	-	-	-	-	-	-	-
Stage 2	863	735	-	452	350	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	228	266	787	226	174	887	1105	-	-	1315	-	-
Mov Capacity-2 Maneuver	228	266	-	226	174	-	-	-	-	-	-	-
Stage 1	407	433	-	698	663	-	-	-	-	-	-	-
Stage 2	773	734	-	401	313	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.4	10.3	0	1.9
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1105	-	-	255	0	226	810	1315	-	-
HCM Lane V/C Ratio	-	-	-	0.017	+	0.013	0.113	0.105	-	-
HCM Control Delay (s)	0	-	-	19.4	0	21.1	10	8.058	-	-
HCM Lane LOS	A			C	A	C	B	A		
HCM 95th %tile Q(veh)	0	-	-	0.052	+	0.039	0.381	0.351	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	20.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	396	78	99	499	3	95	2	146	3	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Yield	Yield	Yield
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	430	85	108	542	3	103	2	159	3	1	5

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	546	0	0	515	0	0	1232	1234	473
Stage 1	-	-	-	-	-	-	473	473	-
Stage 2	-	-	-	-	-	-	759	761	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1023	-	-	1051	-	-	154	177	591
Stage 1	-	-	-	-	-	-	572	558	-
Stage 2	-	-	-	-	-	-	399	414	-
Time blocked-Platoon, %		-	-		-	-			
Mov Capacity-1 Maneuver	1023	-	-	1051	-	-	137	151	591
Mov Capacity-2 Maneuver	-	-	-	-	-	-	137	151	-
Stage 1	-	-	-	-	-	-	572	558	-
Stage 2	-	-	-	-	-	-	340	353	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	108.7
HCM LOS			F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	255	1023	-	-	1051	-	-
HCM Lane V/C Ratio	1.036	-	-	-	0.102	-	-
HCM Control Delay (s)	108.7	0	-	-	8.816	0	-
HCM Lane LOS	F	A			A	A	
HCM 95th %tile Q(veh)	10.539	0	-	-	0.341	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	73	4	4	89	200	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	4	4	97	217	99

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	372	267	316	0	-	0
Stage 1	267	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	629	772	1244	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	627	772	1244	-	-	-
Mov Capacity-2 Maneuver	627	-	-	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	916	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0.3	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1244	-	633	-	-
HCM Lane V/C Ratio	0.003	-	0.132	-	-
HCM Control Delay (s)	7.904	0	11.6	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.011	-	0.454	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	2	45	2	4	21	13	282	8	10	310	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	2	49	2	4	23	14	307	9	11	337	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	728	718	353	740	730	311	370	0	0	315	0	0
Stage 1	375	375	-	339	339	-	-	-	-	-	-	-
Stage 2	353	343	-	401	391	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	339	355	691	333	349	729	1189	-	-	1245	-	-
Stage 1	646	617	-	676	640	-	-	-	-	-	-	-
Stage 2	664	637	-	626	607	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	319	346	691	302	340	729	1189	-	-	1245	-	-
Mov Capacity-2 Maneuver	319	346	-	302	340	-	-	-	-	-	-	-
Stage 1	637	610	-	667	631	-	-	-	-	-	-	-
Stage 2	630	628	-	573	600	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	11.6	0.3	0.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1189	-	-	557	572	1245	-	-
HCM Lane V/C Ratio	0.012	-	-	0.111	0.051	0.009	-	-
HCM Control Delay (s)	8.064	0	-	12.3	11.6	7.917	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.036	-	-	0.373	0.162	0.026	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	26	13	0	96	130	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	14	0	104	141	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	245	141	141	0	-	0
Stage 1	141	-	-	-	-	-
Stage 2	104	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	743	907	1442	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	743	907	1442	-	-	-
Mov Capacity-2 Maneuver	743	-	-	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	920	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1442	-	791	-	-
HCM Lane V/C Ratio	-	-	0.054	-	-
HCM Control Delay (s)	0	-	9.8	-	-
HCM Lane LOS	A		A		
HCM 95th %tile Q(veh)	0	-	0.17	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

APPENDIX F

WARRANT ANALYSES

ALL-WAY STOP WARRANT ANALYSES
SIGNAL WARRANT ANALYSES
CRASH DATA SUMMARY TABLE

ALL-WAY STOP WARRANT ANALYSES

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Lakeshore Blvd and Peter White Dr**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	15	10	0			
7:00	24	18	0			
8:00	67	17	0			
9:00	109	13	0			
10:00	150	18	0			
11:00	156	20	0			
12:00	204	22	0			
13:00	277	20	0			
14:00	278	33	0			
15:00	268	37	0			
16:00	260	32	0			
17:00	270	20	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	12
TOTAL NUMBER OF ACCIDENTS	0	1	0	2	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/1/2013

Date Performed : February 10, 2014

Performed By : KMM

Comments

INTERSECTION : **Lakeshore Blvd and Hawley Street**
MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**
NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**
NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	47	16	0			
7:00	91	26	0			
8:00	107	48	0			
9:00	147	54	0			
10:00	183	53	0			
11:00	196	59	0			
12:00	258	63	0			
13:00	333	72	0			
14:00	327	80	0			
15:00	311	92	0			
16:00	315	121	0			
17:00	320	139	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING:	300	240
MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	0	0	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?
(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?
YES 0 hours (NO)

COMBINATION OF WARRANTS
(REDUCED TO 80%)

4 Correctable Accidents Within A 12-month Period?
YES (NO)

Are Volume Requirements Met For 8 Hours?
YES 0 hours (NO)

ARE BOTH CRITERIA MET?
YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (NO)

Review Information

Counts Used : DLZ
Count Date(s) : 10/1/2013
Date Performed : February 10, 2014
Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Hawley Street at Presque Isle Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	63	75	0			
7:00	118	91	0			
8:00	134	73	0			
9:00	106	65	0			
10:00	91	54	0			
11:00	118	121	0			
12:00	153	135	0			
13:00	131	97	0			
14:00	121	97	0			
15:00	153	111	0			
16:00	154	113	0			
17:00	155	126	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	2	0	2	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	1	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 12/4/2013

Date Performed : February 7, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Sugarloaf Ave and Hawley St**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	56	147	0			
7:00	86	144	0			
8:00	66	117	0			
9:00	60	117	0			
10:00	87	108	0			
11:00	115	127	0			
12:00	132	158	0			
13:00	126	158	0			
14:00	142	190	0			
15:00	157	177	0			
16:00	155	192	0			
17:00	190	220	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11
TOTAL NUMBER OF ACCIDENTS	0	1	1	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/1/2013

Date Performed : February 10, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Mcclellan Avenue and Cleveland Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	272	34	0			
7:00	761	59	0			
8:00	635	47	0			
9:00	669	73	0			
10:00	640	67	0			
11:00	729	50	0			
12:00	817	77	0			
13:00	702	50	0			
14:00	820	95	0			
15:00	877	103	0			
16:00	906	93	0			
17:00	843	86	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	2	0	2	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	2	0	1	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/1/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Presque Isle Avenue and Center Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	205	9	0			
7:00	355	27	0			
8:00	367	28	0			
9:00	453	40	0			
10:00	497	38	0			
11:00	658	53	0			
12:00	728	76	0			
13:00	650	72	0			
14:00	715	61	0			
15:00	826	76	0			
16:00	813	85	0			
17:00	866	77	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	3	2	1	3	1	2
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	0	0	1	0	2

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/1/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Lakeshore Blvd and Wright St**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	70	7	0			
7:00	126	25	0			
8:00	155	27	0			
9:00	169	48	0			
10:00	198	64	0			
11:00	206	75	0			
12:00	272	78	0			
13:00	358	86	0			
14:00	324	86	0			
15:00	355	124	0			
16:00	381	119	0			
17:00	390	131	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	0	0	0	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/1/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Pine St and Lakeshore Blvd**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	59	11	0			
7:00	129	15	0			
8:00	152	23	0			
9:00	181	20	0			
10:00	214	18	0			
11:00	234	19	0			
12:00	289	34	0			
13:00	354	36	0			
14:00	336	27	0			
15:00	379	48	0			
16:00	403	56	0			
17:00	411	50	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	0	0	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/1/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Pine Street and Fair Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

Existing All-Way Stop

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	45	25	0			
7:00	85	58	0			
8:00	148	50	0			
9:00	139	64	0			
10:00	181	68	0			
11:00	178	67	0			
12:00	231	79	0			
13:00	238	80	0			
14:00	211	98	35			
15:00	224	115	0			
16:00	290	137	0			
17:00	291	145	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	0	1	2	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	0	0	1	1	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/1/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Lakeshore Blvd and Fair Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	64	12	0			
7:00	132	23	0			
8:00	192	28	0			
9:00	197	37	0			
10:00	235	55	0			
11:00	241	55	0			
12:00	306	92	0			
13:00	372	80	0			
14:00	337	62	0			
15:00	380	66	0			
16:00	399	90	0			
17:00	420	73	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	0	0	0	0	2
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/1/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Third Street and Fair Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	134	47	0			
7:00	236	129	0			
8:00	273	130	0			
9:00	325	226	0	X		X
10:00	304	168	0			X
11:00	457	253	0	X		X
12:00	470	288	0	X		X
13:00	444	249	0	X		X
14:00	489	259	0	X		X
15:00	536	228	0	X		X
16:00	543	261	0	X		X
17:00	611	378	0	X		X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	8 hours	9 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	5	1	1	0	1	3
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	4	0	1	0	1	3

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

(YES) 8 hours NO

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

(YES) 9 hours NO

ARE BOTH CRITERIA MET?

(YES) NO

IS A MULTI-WAY STOP WARRANTED?

(YES) **NO**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Front Street and Fair Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	48	19	0			
7:00	113	53	0			
8:00	122	49	0			
9:00	162	75	0			
10:00	170	74	0			
11:00	244	67	0			
12:00	261	77	0			
13:00	260	68	0			
14:00	305	68	0			
15:00	292	66	0			
16:00	344	82	0			
17:00	506	143	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	0	3	0	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	1	1	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Third Street and College Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	133	32	0			
7:00	328	114	0			
8:00	316	94	0			
9:00	395	110	0			
10:00	377	94	0			
11:00	554	140	0			
12:00	622	167	0			X
13:00	537	138	0			
14:00	561	190	0			X
15:00	595	176	0			X
16:00	607	177	0			X
17:00	704	175	0			X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	5 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	2	3	1	1	1	3
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	2	2	0	1	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 5 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Pine Street and Magnetic Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	37	17	0			
7:00	76	8	0			
8:00	66	19	0			
9:00	63	15	0			
10:00	53	12	0			
11:00	80	18	0			
12:00	77	13	0			
13:00	85	14	0			
14:00	100	16	0			
15:00	113	20	0			
16:00	127	26	0			
17:00	154	34	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	1	2	1	0	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Front Street and Magnetic Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	70	9	0			
7:00	132	27	0			
8:00	123	38	0			
9:00	147	30	0			
10:00	126	21	0			
11:00	149	41	0			
12:00	178	26	0			
13:00	142	31	0			
14:00	176	37	0			
15:00	180	34	0			
16:00	216	45	0			
17:00	260	58	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	0	1	0	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	1	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Third Street and Magnetic Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	153	21	0			
7:00	372	43	0			
8:00	363	56	0			
9:00	446	58	0			
10:00	423	50	0			
11:00	615	65	0			
12:00	748	50	0			
13:00	634	56	0			
14:00	673	77	0			
15:00	696	79	0			
16:00	740	82	0			
17:00	843	82	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	6	2	3	2	2	5
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	3	0	2	2	2	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Fourth Street and Magnetic Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	223	38	0			
7:00	410	84	0			
8:00	402	58	0			
9:00	366	77	0			
10:00	353	64	0			
11:00	502	97	0			
12:00	590	122	0			
13:00	485	111	0			
14:00	563	127	0			
15:00	590	163	0			X
16:00	565	123	0			
17:00	655	137	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	1 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	3	2	4	6	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	1	0	4	1	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

YES 1 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2014

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Lakeshore Blvd and Crescent Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	54	4	0			
7:00	144	20	0			
8:00	182	15	0			
9:00	211	19	0			
10:00	229	15	0			
11:00	265	19	0			
12:00	317	20	0			
13:00	346	26	0			
14:00	352	27	0			
15:00	424	25	0			
16:00	397	27	0			
17:00	523	46	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	0	1	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	1	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Lakeshore Blvd and Hewitt Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	86	7	0			
7:00	184	19	0			
8:00	184	19	0			
9:00	207	8	0			
10:00	245	12	0			
11:00	279	15	0			
12:00	357	26	0			
13:00	322	21	0			
14:00	381	32	0			
15:00	419	26	0			
16:00	400	22	0			
17:00	445	20	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	1	0	0	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	1	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Spruce Street and Hewitt Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	14	5	0			
7:00	29	19	0			
8:00	27	35	0			
9:00	26	20	0			
10:00	25	30	0			
11:00	40	34	0			
12:00	37	43	0			
13:00	29	35	0			
14:00	38	56	0			
15:00	39	45	0			
16:00	48	50	0			
17:00	50	53	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	0	0	0	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

ARE BOTH CRITERIA MET?

YES NO

IS A MULTI-WAY STOP WARRANTED?

YES **NO**

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : 2/11/2-14

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Pine Street and Hewitt Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

Existing All-Way Stop

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	31	14	0			
7:00	62	43	0			
8:00	61	43	0			
9:00	47	28	0			
10:00	46	39	0			
11:00	65	43	0			
12:00	91	52	0			
13:00	83	51	0			
14:00	91	63	0			
15:00	95	62	0			
16:00	115	67	0			
17:00	137	68	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	1	0	1	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/2/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Hewitt Street and Front Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	86	9	0			
7:00	187	54	0			
8:00	168	58	0			
9:00	194	56	0			
10:00	177	55	0			
11:00	210	61	0			
12:00	269	71	0			
13:00	215	72	0			
14:00	274	91	0			
15:00	234	103	0			
16:00	314	90	0			
17:00	332	108	0			
18:00						
19:00						
20:00						
21:00						

Hours Met:		0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

Review Information

Counts Used : DLZ

Count Date(s) : 12/2/2013

Date Performed : September 4, 2014

Performed By : CHT

Comments

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS						
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)						

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?
(No Volume Requirement)

YES NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

ARE BOTH CRITERIA MET?

YES NO

IS A MULTI-WAY STOP WARRANTED?

YES **NO**

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Fourth Street and Hewitt Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	202	17	0			
7:00	432	45	0			
8:00	358	60	0			
9:00	375	78	0			
10:00	342	62	0			
11:00	435	61	0			
12:00	534	74	0			
13:00	545	73	0			
14:00	620	90	0			
15:00	613	108	0			
16:00	636	97	0			
17:00	646	109	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	4	3	2	5	2	2
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	3	1	0	1	1	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Front Street and Arch Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	96	19	0			
7:00	220	66	0			
8:00	233	58	0			
9:00	198	61	0			
10:00	203	64	0			
11:00	245	86	0			
12:00	290	111	0			
13:00	291	102	0			
14:00	285	89	0			
15:00	283	95	0			
16:00	368	115	0			
17:00	411	99	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	2	3	1	2	1	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	1	0	1	1	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Pine Street and Ridge Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	17	10	0			
7:00	66	11	0			
8:00	58	11	0			
9:00	75	15	0			
10:00	76	28	0			
11:00	86	25	0			
12:00	124	20	0			
13:00	118	25	0			
14:00	133	30	0			
15:00	119	19	0			
16:00	141	36	0			
17:00	184	51	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	0	0	0	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : 0

MUNICPALITY / TOWNSHIP: Marquette

SPEED LIMIT OF MAJOR ROUTE : 25 mph

NUMBER OF LANES ON MAJOR APPROACH : 1

PROPOSED 3-WAY OR 4-WAY: 4-WAY

NUMBER OF LANES ON MINOR APPROACH : 1

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	88	2	0			
7:00	210		0			
8:00	235	4	0			
9:00	207	4	0			
10:00	212	8	0			
11:00	268	10	0			
12:00	322	7	0			
13:00	337	10	0			
14:00	342	13	0			
15:00	371	18	0			
16:00	421	11	0			
17:00	405	14	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	1	0	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	1	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 1/0/1900

Date Performed : January 0, 1900

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Lakeshore Blvd and Baraga Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	74	30	0			
7:00	155	62	0			
8:00	148	85	0			
9:00	140	61	0			
10:00	167	59	0			
11:00	168	72	0			
12:00	234	100	0			
13:00	212	85	0			
14:00	215	93	0			
15:00	256	110	0			
16:00	306	116	0			
17:00	269	118	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	1	0	1	3	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	1	0	0	2	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Front Street and Baraga Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	350	35	0			
7:00	665	85	0			
8:00	685	90	0			
9:00	615	95	0			
10:00	605	135	0			
11:00	630	125	0			
12:00	770	170	0			X
13:00	775	150	0			
14:00	755	160	0			X
15:00	755	175	0			X
16:00	1005	210	0	X		X
17:00	1005	255	0	X		X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	2 hours	5 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	11	5	15	6	14	8
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	3	1	6	1	8	2

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) (YES) NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 2 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

YES 5 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 2030 Volumes

Date Performed : April 10, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Front Street and Baraga Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	316	27	0			
7:00	605	76	0			
8:00	624	80	0			
9:00	563	83	0			
10:00	548	116	0			
11:00	572	111	0			
12:00	703	150	0			
13:00	708	130	0			
14:00	685	144	0			
15:00	690	156	0			
16:00	918	187	0			X
17:00	921	231	0	X		X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	1 hours	2 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	11	5	15	6	14	8
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	3	1	6	1	8	2

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) (YES) NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 1 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

YES 2 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Front Street and Spring Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	276	5	0			
7:00	506	27	0			
8:00	482	38	0			
9:00	503	26	0			
10:00	482	28	0			
11:00	546	53	0			
12:00	664	64	0			
13:00	644	67	0			
14:00	591	83	0			
15:00	651	63	0			
16:00	849	71	0			
17:00	791	78	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : September 4, 2014

Performed By : CHT

Comments

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS						
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)						

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

ARE BOTH CRITERIA MET?

YES NO

IS A MULTI-WAY STOP WARRANTED?

YES **NO**

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Third Street and Baraga Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	73	42	0			
7:00	240	115	0			
8:00	228	101	0			
9:00	210	86	0			
10:00	277	134	0			
11:00	316	156	0			
12:00	343	137	0			
13:00	343	139	0			
14:00	386	153	0			
15:00	406	143	0			
16:00	421	161	0			X
17:00	480	170	0			X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	2 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	4	5	5	7	9	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	2	3	2	7	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) (YES) NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

YES 2 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Fourth Street and Baraga Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	92	36	0			
7:00	270	76	0			
8:00	169	78	0			
9:00	194	92	0			
10:00	167	119	0			
11:00	221	139	0			
12:00	235	124	0			
13:00	281	133	0			
14:00	302	140	0			
15:00	310	137	0			
16:00	304	157	0			
17:00	274	102	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	7	7	4	8	3	3
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	4	3	4	5	2	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) (YES) NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Seventh Street and Spring Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	185	14	0			
7:00	538	36	0			
8:00	368	33	0			
9:00	294	38	0			
10:00	296	43	0			
11:00	329	58	0			
12:00	402	62	0			
13:00	376	51	0			
14:00	421	47	0			
15:00	444	56	0			
16:00	492	72	0			
17:00	514	67	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	0	0	0	2
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Seventh Street and Baraga Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	192	25	0			
7:00	543	92	0			
8:00	368	83	0			
9:00	303	104	0			
10:00	286	80	0			
11:00	318	131	0			
12:00	408	125	0			
13:00	371	126	0			
14:00	418	152	0			
15:00	457	111	0			
16:00	499	158	0			
17:00	535	129	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	2	2	3	2
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	1	1	1	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Front Street and Fisher Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	367	14	0			
7:00	732	41	0			
8:00	653	56	0			
9:00	604	47	0			
10:00	598	62	0			
11:00	620	80	0			
12:00	805	70	0			
13:00	789	75	0			
14:00	787	87	0			
15:00	792	123	0			
16:00	1067	117	0			
17:00	1080	121	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	4	5	4	0	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	3	1	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Third Street and Fisher Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	93	19	0			
7:00	301	71	0			
8:00	204	80	0			
9:00	210	74	0			
10:00	174	120	0			
11:00	216	146	0			
12:00	225	155	0			
13:00	238	156	0			
14:00	262	169	0			X
15:00	277	194	0			X
16:00	313	194	0			X
17:00	294	237	0			X
18:00						
19:00						
20:00						
21:00						

		Hours Met: 0 hours	4 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	2	3	1	3	3
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	1	0	1	0	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 4 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Fourth Street and Fisher Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	81	18	0			
7:00	249	92	0			
8:00	191	64	0			
9:00	181	71	0			
10:00	177	72	0			
11:00	215	100	0			
12:00	258	116	0			
13:00	271	114	0			
14:00	267	152	0			
15:00	243	155	0			
16:00	259	179	0			X
17:00	246	166	0			X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	2 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	3	2	2	4	2	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	0	1	0	0	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 2 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Fifth Street and Fisher Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	84	5	0			
7:00	273	41	0			
8:00	224	34	0			
9:00	207	40	0			
10:00	222	40	0			
11:00	249	66	0			
12:00	311	59	0			
13:00	305	59	0			
14:00	328	75	0			
15:00	301	55	0			
16:00	328	77	0			
17:00	307	48	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	2	1	2	0	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	1	0	2	0	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/8/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Altamont Street and Fisher Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	76	53	0			
7:00	278	247	0			X
8:00	228	144	0			
9:00	221	106	0			
10:00	248	100	0			
11:00	339	96	0			
12:00	401	125	0			
13:00	319	109	0			
14:00	412	164	0			X
15:00	376	147	0			
16:00	394	109	0			
17:00	368	150	0			
18:00						
19:00						
20:00						
21:00						

VOLUME REQUIREMENTS:	Hours Met: 0 hours	2 hours
MAJOR ENTERING:	300	240
MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	2	1	3	1	0	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	0	1	1	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 2 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Seventh Street and Fisher Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	205	57	0			
7:00	560	185	0			X
8:00	412	172	0			X
9:00	345	154	0			
10:00	323	172	0			X
11:00	384	184	0			X
12:00	471	226	0	X		X
13:00	401	197	0			X
14:00	501	253	0	X		X
15:00	548	225	0	X		X
16:00	601	216	0	X		X
17:00	563	207	0	X		X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	5 hours	10 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	4	0	1	1	2	4
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	0	0	0	0	3

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 5 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

(YES) 10 hours NO

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Division Street and Genesee Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	69	25	0			
7:00	235	106	0			
8:00	160	79	0			
9:00	137	91	0			
10:00	129	105	0			
11:00	158	149	0			
12:00	159	142	0			
13:00	156	128	0			
14:00	176	174	0			
15:00	193	173	0			
16:00	232	195	0			
17:00	184	214	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	2	3	3	1	2	2
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	0	2	1	1	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 12/4/2013

Date Performed : 2/11/2-14

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Altamont Street and Genesee Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	52	4	0			
7:00	351	18	0			
8:00	131	13	0			
9:00	107	13	0			
10:00	107	18	0			
11:00	135	17	0			
12:00	161	27	0			
13:00	133	27	0			
14:00	250	28	0			
15:00	205	24	0			
16:00	174	27	0			
17:00	204	24	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	0	0	0	0	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Altamont Street and Hampton Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	20	20	0			
7:00	314	74	0			
8:00	50	44	0			
9:00	36	46	0			
10:00	46	35	0			
11:00	38	46	0			
12:00	48	51	0			
13:00	56	70	0			
14:00	88	65	0			
15:00	52	72	0			
16:00	84	71	0			
17:00	60	96	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	0	0	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	1	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

ARE BOTH CRITERIA MET?

YES NO

IS A MULTI-WAY STOP WARRANTED?

YES **NO**

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Division Street and Hampton Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	87	25	0			
7:00	335	151	0			
8:00	188	50	0			
9:00	161	62	0			
10:00	187	61	0			
11:00	196	74	0			
12:00	249	101	0			
13:00	226	72	0			
14:00	255	115	0			
15:00	284	111	0			
16:00	360	110	0			
17:00	341	100	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	2	3	4	2	2	2
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	1	2	1	1	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **U.S. 41 and Hampton Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **35 mph**

NUMBER OF LANES ON MAJOR APPROACH : **2**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	703	29	0			
7:00	1461	88	0			
8:00	1237	45	0			
9:00	1189	54	0			
10:00	1142	82	0			
11:00	1241	94	0			
12:00	1375	71	0			
13:00	1315	77	0			
14:00	1437	97	0			
15:00	1554	97	0			
16:00	1870	90	0			
17:00	1811	85	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	3	4	7	7	5	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	1	3	5	3	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) (YES) NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 11, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Division Street and Joliet Road**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	81	33	0			
7:00	226	71	0			
8:00	198	57	0			
9:00	170	44	0			
10:00	158	33	0			
11:00	190	33	0			
12:00	206	47	0			
13:00	163	46	0			
14:00	222	25	0			
15:00	268	36	0			
16:00	332	38	0			
17:00	281	40	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	0	0	0	0	0	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 12/9/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Division Street and Pioneer Road**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	94	17	0			
7:00	209	34	0			
8:00	193	48	0			
9:00	142	38	0			
10:00	135	46	0			
11:00	172	66	0			
12:00	190	87	0			
13:00	185	72	0			
14:00	190	65	0			
15:00	231	71	0			
16:00	302	94	0			
17:00	308	100	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	4	2	5	1	2	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	0	2	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Altamont Street and Pioneer Road**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	43	8	0			
7:00	112	36	0			
8:00	141	26	0			
9:00	106	14	0			
10:00	95	9	0			
11:00	138	17	0			
12:00	175	20	0			
13:00	146	23	0			
14:00	151	20	0			
15:00	164	25	0			
16:00	202	26	0			
17:00	207	26	0			
18:00						
19:00						
20:00						
21:00						

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING: 300 240

MINOR ENTERING: 200 160

INCLUDING ANY PEDS

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	0	0	0	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

ARE BOTH CRITERIA MET?

YES NO

IS A MULTI-WAY STOP WARRANTED?

YES **NO**

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Division Street and McClellan Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	278	33	0			
7:00	543	54	0			
8:00	403	49	0			
9:00	350	28	0			
10:00	329	45	0			
11:00	386	49	0			
12:00	383	61	0			
13:00	433	51	0			
14:00	457	68	0			
15:00	567	102	0			
16:00	637	111	0			
17:00	663	112	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	1	2	2	2	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Third Street and Spring Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	74	15	0			
7:00	232	47	0			
8:00	237	45	0			
9:00	236	52	0			
10:00	263	87	0			
11:00	318	86	0			
12:00	398	113	0			
13:00	340	134	0			
14:00	364	133	0			
15:00	386	87	0			
16:00	473	151	0			
17:00	488	114	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	2	1	0	3	3	2
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 10/9/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : McClellan Avenue and Baraga Avenue

MUNICPALITY / TOWNSHIP: Marquette

SPEED LIMIT OF MAJOR ROUTE : 25 mph

NUMBER OF LANES ON MAJOR APPROACH : 1

PROPOSED 3-WAY OR 4-WAY: 4-WAY

NUMBER OF LANES ON MINOR APPROACH : 1

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	240	15	0			
7:00	762	48	0			
8:00	736	105	0			
9:00	749	139	0			
10:00	724	174	0			X
11:00	784	241	0	X		X
12:00	869	258	0	X		X
13:00	821	244	0	X		X
14:00	881	213	0	X		X
15:00	937	241	0	X		X
16:00	1006	257	0	X		X
17:00	922	178	0			X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	6 hours	8 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	7	4	2	7	1	6
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	6	1	2	4	0	2

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) (YES) NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 6 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

(YES) 8 hours NO

ARE BOTH CRITERIA MET?

(YES) NO

IS A MULTI-WAY STOP WARRANTED?

(YES) **NO**

Review Information

Counts Used : DLZ

Count Date(s) : 12/3/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Grove Street and McClellan Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **35 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	231	81	0			
7:00	624	235	0	X		X
8:00	585	204	0	X		X
9:00	477	139	0			
10:00	476	95	0			
11:00	450	133	0			
12:00	527	191	0			X
13:00	507	162	0			X
14:00	647	196	0			X
15:00	765	226	0	X		X
16:00	819	260	0	X		X
17:00	809	249	0	X		X
18:00						
19:00						
20:00						
21:00						

	Hours Met:	5 hours	8 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	3	3	3	2	0	5
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	1	0	1	0	2

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 5 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 8 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

Review Information

Counts Used : DLZ

Count Date(s) : 12/3/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Pioneer Road and McClellan Avenue**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **35 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	207	33	0			
7:00	521	139	0			
8:00	415	116	0			
9:00	370	57	0			
10:00	387	60	0			
11:00	352	59	0			
12:00	432	79	0			
13:00	427	73	0			
14:00	556	107	0			
15:00	611	92	0			
16:00	679	108	0			
17:00	682	81	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	3	1	2	6	2	4
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	0	0	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 12/3/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Lincoln Avenue and Cleveland Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	161	67	0			
7:00	399	81	0			
8:00	265	97	0			
9:00	278	77	0			
10:00	266	56	0			
11:00	311	71	0			
12:00	389	86	0			
13:00	317	84	0			
14:00	394	82	0			
15:00	385	78	0			
16:00	427	76	0			
17:00	346	73	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	1	2	4	1	0
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	1	2	1	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 12/4/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Seventh Street and Magnetic Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	183	97	2			
7:00	409	184	2			X
8:00	361	178	1			X
9:00	386	175	3			X
10:00	290	159	4			X
11:00	307	180	2			X
12:00	334	229	0	X		X
13:00	313	212	2	X		X
14:00	377	199	4	X		X
15:00	427	272	6	X		X
16:00	406	251	5	X		X
17:00	405	249	3	X		X
18:00						
19:00						
20:00						
21:00						

Hours Met:		6 hours	11 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

Review Information

Counts Used : DLZ

Count Date(s) : 12/4/2013

Date Performed : September 4, 2014

Performed By : CHT

Comments

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	1	0	7	3	7	6
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	0	0	1	1	0	0

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?
(No Volume Requirement)

YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 6 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

(YES) 11 hours NO

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (**NO**)

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Washington Street and Fifth Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	145	19	0			
7:00	361	66	0			
8:00	426	67	0			
9:00	553	53	0			
10:00	618	59	0			
11:00	694	74	0			
12:00	799	69	0			
13:00	682	72	0			
14:00	709	72	0			
15:00	694	66	0			
16:00	808	86	0			
17:00	705	80	0			
18:00						
19:00						
20:00						
21:00						

Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS: MAJOR ENTERING:	300	240
VOLUME REQUIREMENTS: MINOR ENTERING: INCLUDING ANY PEDS	200	160

Review Information

Counts Used : DLZ

Count Date(s) : 12/4/2013

Date Performed : September 4, 2014

Performed By : CHT

Comments

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS						
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)						

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?
(No Volume Requirement)

YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Washington Street and Front Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	214	26	0			
7:00	434	76	1			
8:00	388	108	7			
9:00	399	131	11			
10:00	402	158	14			X
11:00	443	162	12			X
12:00	478	216	20	X		X
13:00	426	163	20			X
14:00	428	172	14			X
15:00	322	197	6	X		X
16:00	561	259	15	X		X
17:00	570	201	8	X		X
18:00						
19:00						
20:00						
21:00						

		4 hours	8 hours
Hours Met:		4 hours	8 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

Review Information

Counts Used : DLZ

Count Date(s) : 12/4/2013

Date Performed : September 4, 2014

Performed By : CHT

Comments

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	15	17	9	11	9	5
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	2	4	3	3	0	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 4 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

(YES) 8 hours NO

ARE BOTH CRITERIA MET?

(YES) NO

IS A MULTI-WAY STOP WARRANTED?

(YES) **NO**

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Front Street and Main Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	231	15	0			
7:00	461	27	0			
8:00	413	33	0			
9:00	464	48	0			
10:00	452	52	0			
11:00	498	62	0			
12:00	536	68	0			
13:00	481	64	0			
14:00	490	71	0			
15:00	434	80	0			
16:00	643	80	0			
17:00	636	60	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	3	3	6	5	8	6
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	0	3	2	1	2

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 12/4/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : **Lakeshore Blvd and Washington Street**

MUNICPALITY / TOWNSHIP: **Marquette**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **3-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
	MAJOR STREET	MINOR STREET				
HOUR BEGIN	VEHICLES ENTERING BOTH APPROACHES	VEHICLES ENTERING BOTH APPROACHES	PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00	71	4	0			
7:00	141	23	0			
8:00	154	27	0			
9:00	138	26	0			
10:00	124	28	0			
11:00	166	34	0			
12:00	186	45	0			
13:00	210	33	0			
14:00	190	37	0			
15:00	261	40	0			
16:00	229	35	0			
17:00	205	34	0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS	3	3	4	1	1	1
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)	1	1	1	0	0	1

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES **(NO)**

Review Information

Counts Used : DLZ

Count Date(s) : 12/4/2013

Date Performed : February 12, 2014

Performed By : KMM

Comments

MULTI-WAY STOP WARRANT

MICHIGAN DEPARTMENT OF TRANSPORTATION

INTERSECTION : 0

MUNICPALITY / TOWNSHIP: Marquette

SPEED LIMIT OF MAJOR ROUTE : 25 mph

NUMBER OF LANES ON MAJOR APPROACH : 1

PROPOSED 3-WAY OR 4-WAY: 4-WAY

NUMBER OF LANES ON MINOR APPROACH : 1

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:		
HOUR BEGIN	MAJOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET VEHICLES ENTERING BOTH APPROACHES	MINOR STREET PEDS OR BIKES BOTH APPROACHES	HOURS MET		COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%		80%
6:00			0			
7:00			0			
8:00			0			
9:00			0			
10:00			0			
11:00			0			
12:00			0			
13:00			0			
14:00			0			
15:00			0			
16:00			0			
17:00			0			
18:00						
19:00						
20:00						
21:00						

	Hours Met:	0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	'07	'08	'09	'10	'11	'12
TOTAL NUMBER OF ACCIDENTS						
NUMBER CORRECTABLE ACCIDENTS (INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)						

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours NO

ARE BOTH CRITERIA MET?

YES NO

IS A MULTI-WAY STOP WARRANTED?

YES **NO**

Review Information

Counts Used : DLZ

Count Date(s) : 1/0/1900

Date Performed : January 0, 1900

Performed By : KMM

Comments

SIGNAL WARRANT ANALYSES

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 1 Lakeshore Blvd and Peter White Dr

Major Street: NEB Lakeshore /Peter White Dı Minor Street: SEB Lakeshore

Intersection: Lakeshore Blvd and Peter White Dr

City: Marquette

Date Performed: 2/10/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major SWB	Major NEB	Minor SEB	Minor NWB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	2	13	7	3	15	7	25
07:00 - 08:00	5	19	16	2	24	16	42
08:00 - 09:00	25	42	15	2	67	15	84
09:00 - 10:00	38	71	10	3	109	10	122
10:00 - 11:00	66	84	11	7	150	11	168
11:00 - 12:00	82	74	16	4	156	16	176
12:00 - 13:00	80	124	17	5	204	17	226
13:00 - 14:00	121	156	15	5	277	15	297
14:00 - 15:00	138	140	23	10	278	23	311
15:00 - 16:00	131	137	29	8	268	29	305
16:00 - 17:00	108	152	24	8	260	24	292
17:00 - 18:00	132	138	16	4	270	16	290
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**928**	**1150**	**199**	**61**	**2078**	**199**	**2338**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette
Date 2/10/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	15	7	No
07:00 - 08:00	24	16	No
08:00 - 09:00	67	15	No
09:00 - 10:00	109	10	No
10:00 - 11:00	150	11	No
11:00 - 12:00	156	16	No
12:00 - 13:00	204	17	No
13:00 - 14:00	277	15	No
14:00 - 15:00	278	23	No
15:00 - 16:00	268	29	No
16:00 - 17:00	260	24	No
17:00 - 18:00	270	16	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

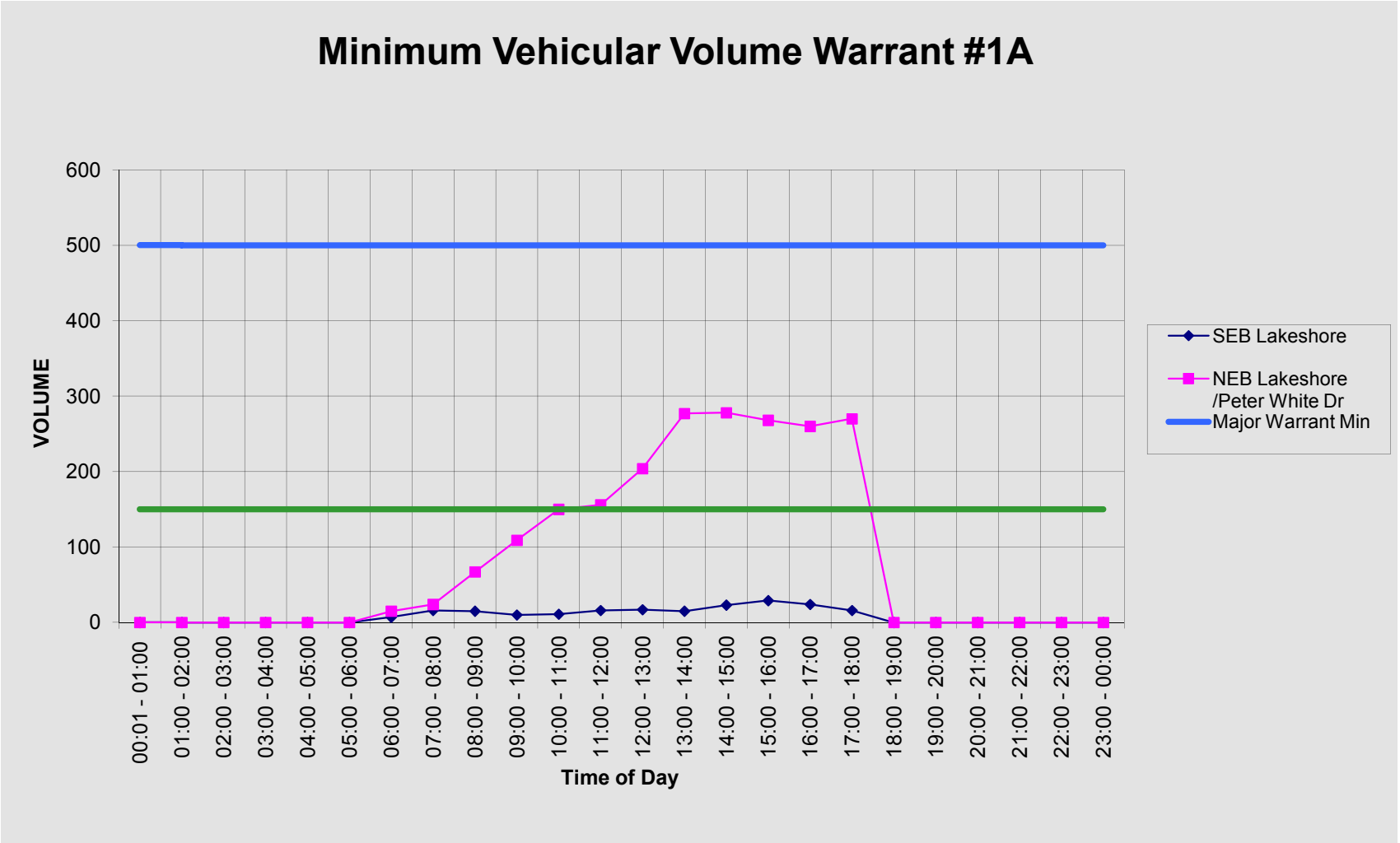
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lakeshore Blvd and Peter White Dr
Spot Number: 1 Lakeshore Blvd and Peter White Dr

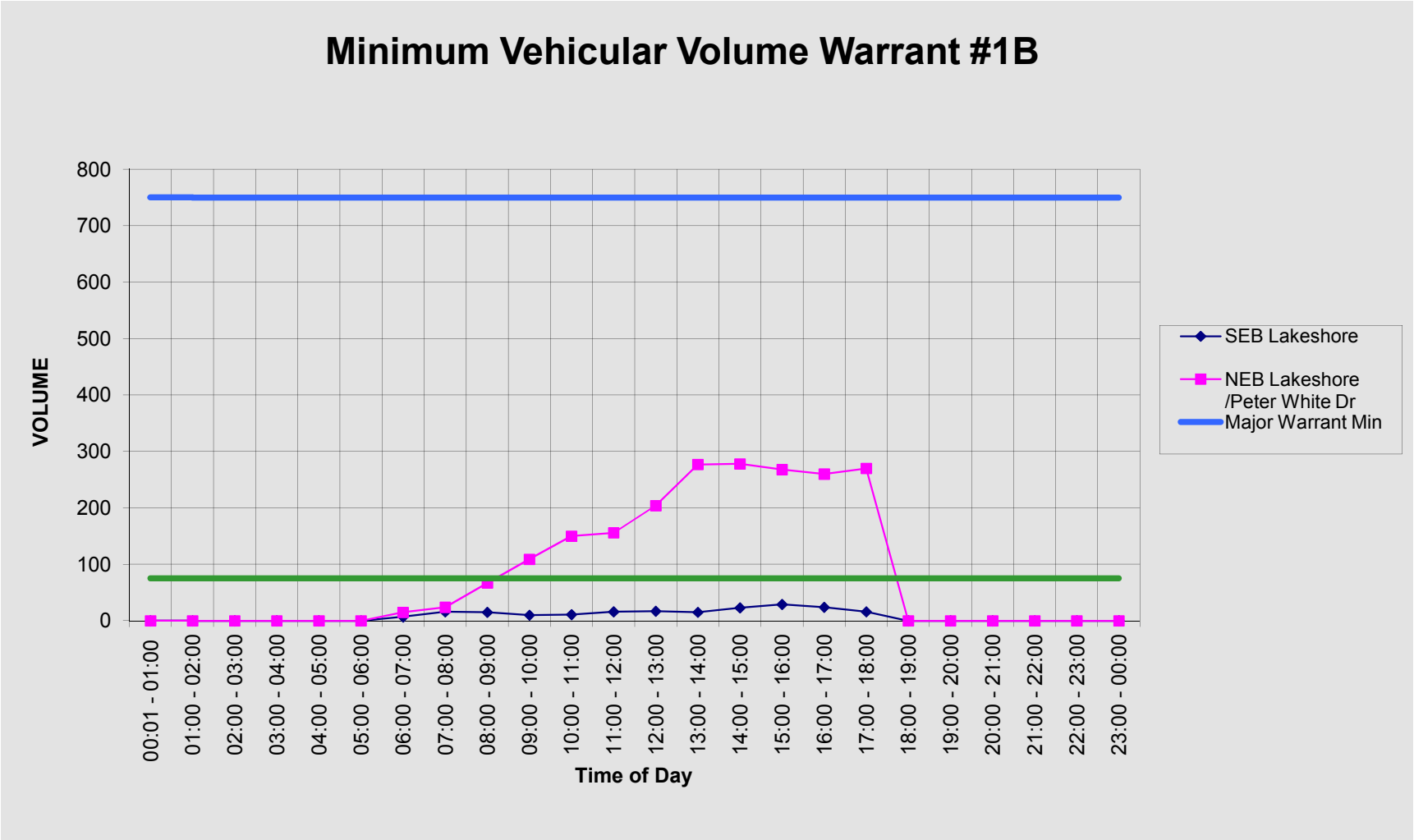
Major Street: NEB Lakeshore /Peter White Dr
Minor Street: SEB Lakeshore
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lakeshore Blvd and Peter White Dr
Spot Number: 1 Lakeshore Blvd and Peter White Dr

Major Street: NEB Lakeshore /Peter White Dr
Minor Street: SEB Lakeshore
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette

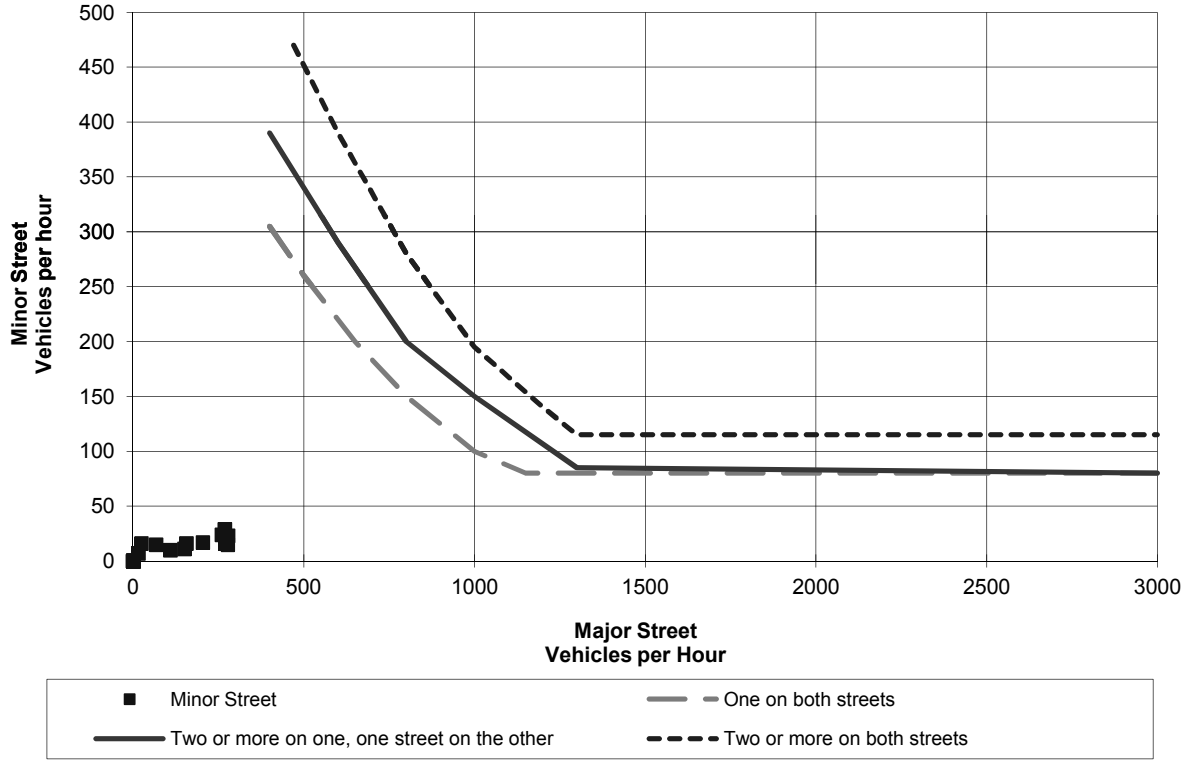
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? No

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 29 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 15:00 - 16:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette

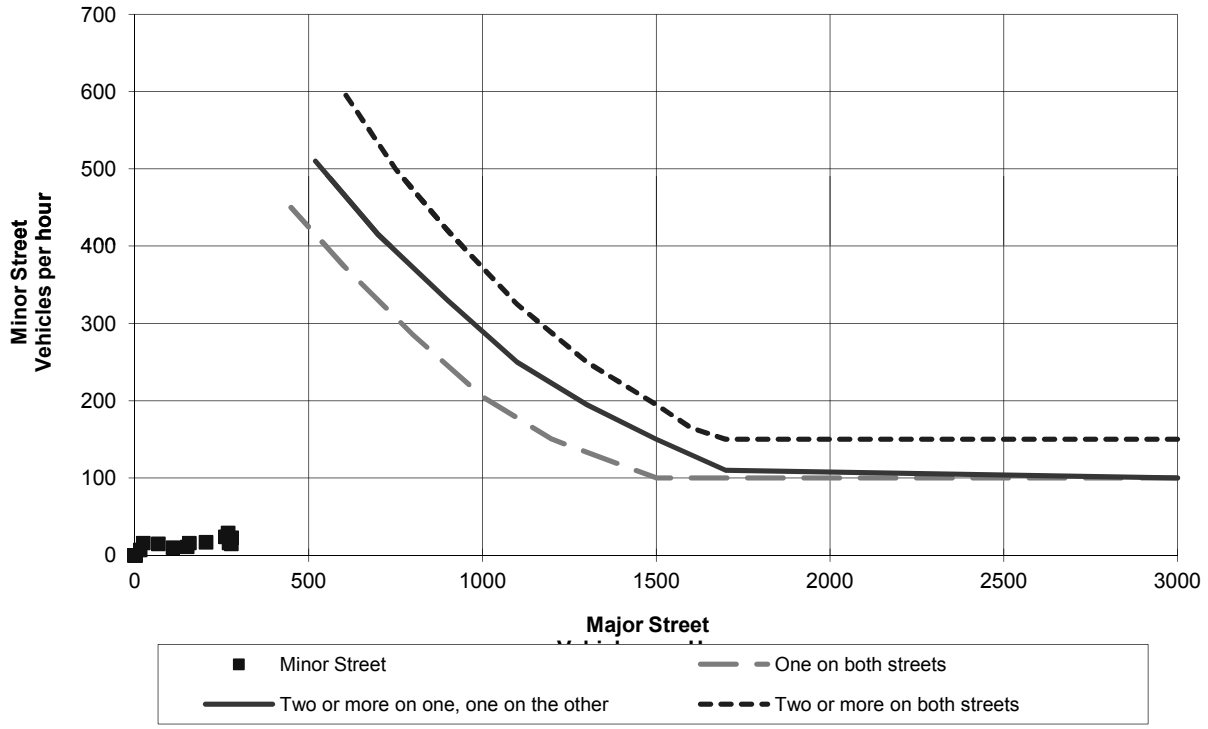
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? No

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Peter White Dr
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 2 Lakeshore Blvd and Hawley Street

Major Street: Lakeshore Blvd Minor Street: Hawley St

Intersection: Lakeshore Blvd and Hawley Street

City: Marquette

Date Performed: 2/10/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major SB	Major NB	Minor EB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	8	39	16	0	47	16	63
07:00 - 08:00	28	63	26	0	91	26	117
08:00 - 09:00	36	71	48	0	107	48	155
09:00 - 10:00	51	96	54	0	147	54	201
10:00 - 11:00	88	95	53	0	183	53	236
11:00 - 12:00	89	107	59	0	196	59	255
12:00 - 13:00	110	148	63	0	258	63	321
13:00 - 14:00	139	194	72	0	333	72	405
14:00 - 15:00	170	157	80	0	327	80	407
15:00 - 16:00	168	143	92	0	311	92	403
16:00 - 17:00	145	170	121	0	315	121	436
17:00 - 18:00	159	161	139	0	320	139	459
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1191**	**1444**	**823**	**0**	**2635**	**823**	**3458**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette
Date 2/10/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	47	16	No
07:00 - 08:00	91	26	No
08:00 - 09:00	107	48	No
09:00 - 10:00	147	54	No
10:00 - 11:00	183	53	No
11:00 - 12:00	196	59	No
12:00 - 13:00	258	63	No
13:00 - 14:00	333	72	No
14:00 - 15:00	327	80	No
15:00 - 16:00	311	92	No
16:00 - 17:00	315	121	No
17:00 - 18:00	320	139	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

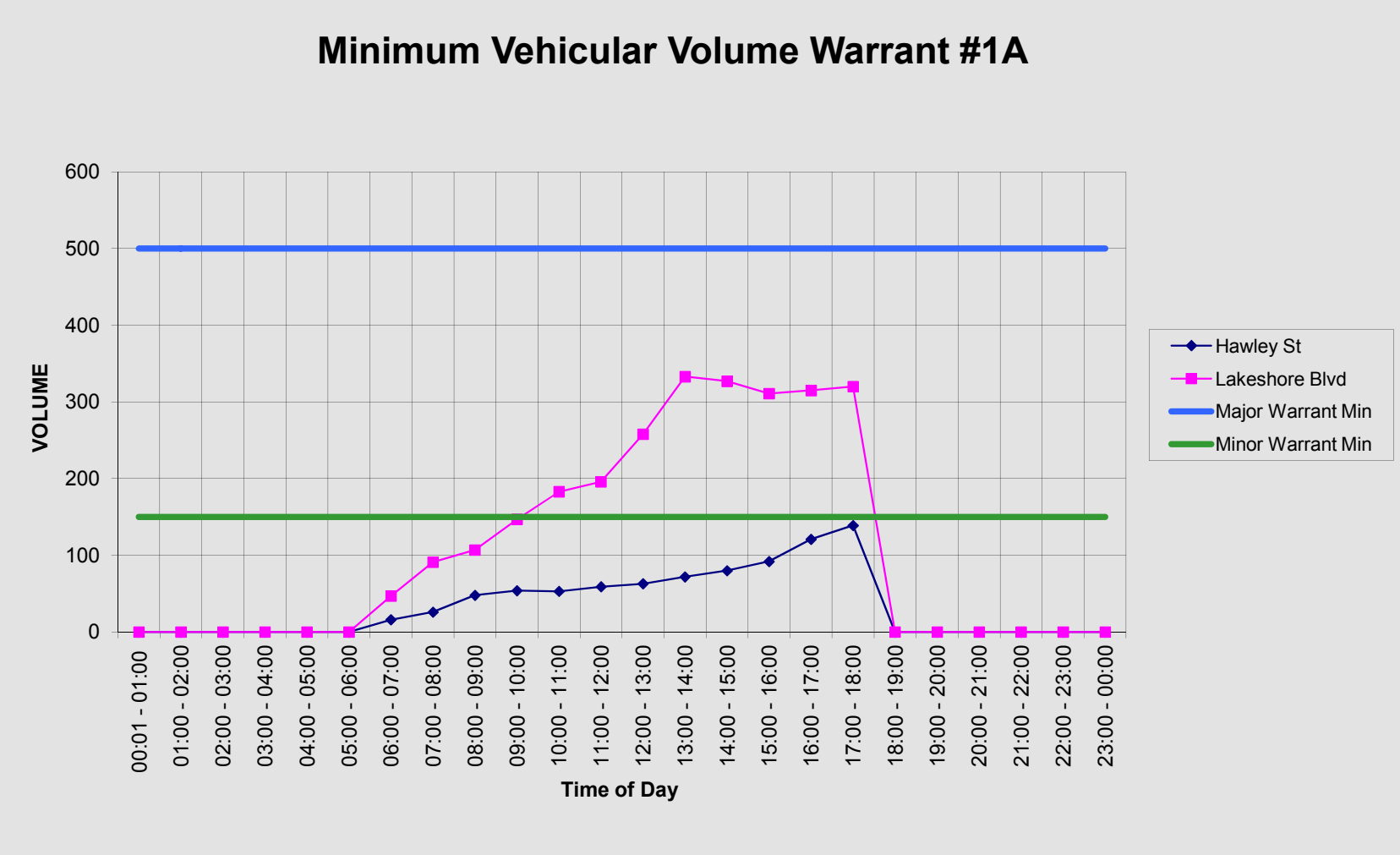
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lakeshore Blvd and Hawley Street
Spot Number: 2 Lakeshore Blvd and Hawley Street

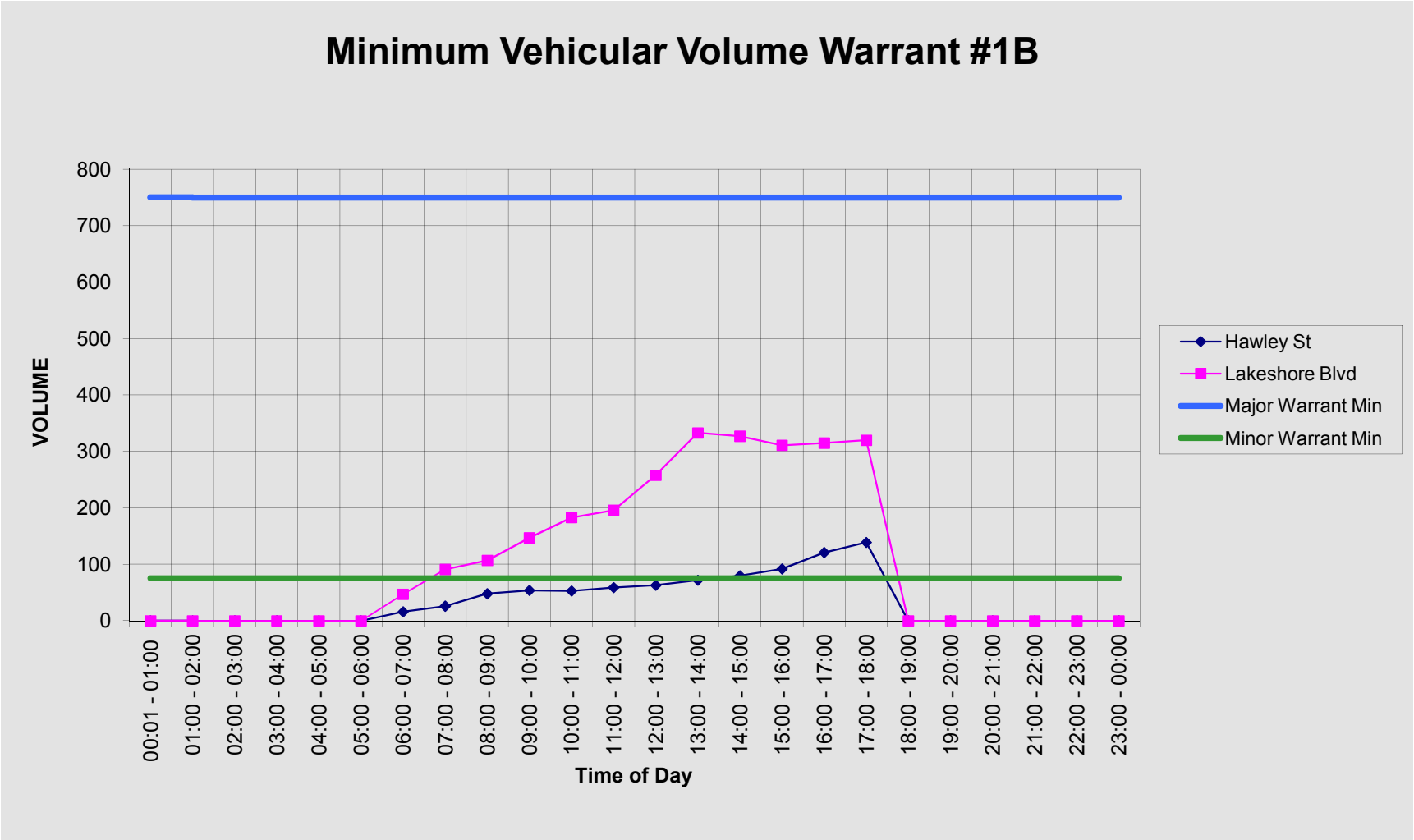
Major Street: Lakeshore Blvd
Minor Street: Hawley St
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lakeshore Blvd and Hawley Street
Spot Number: 2 Lakeshore Blvd and Hawley Street

Major Street: Lakeshore Blvd
Minor Street: Hawley St
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette

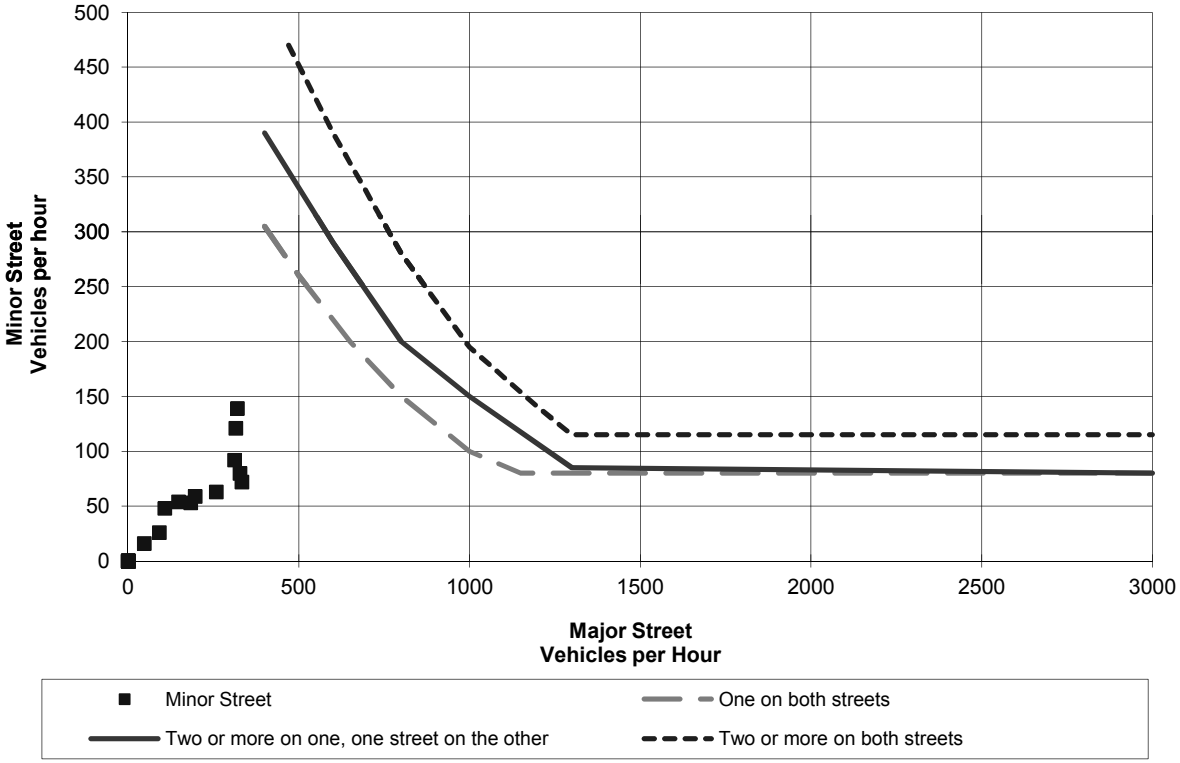
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **Yes, No, N/A**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 139 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette

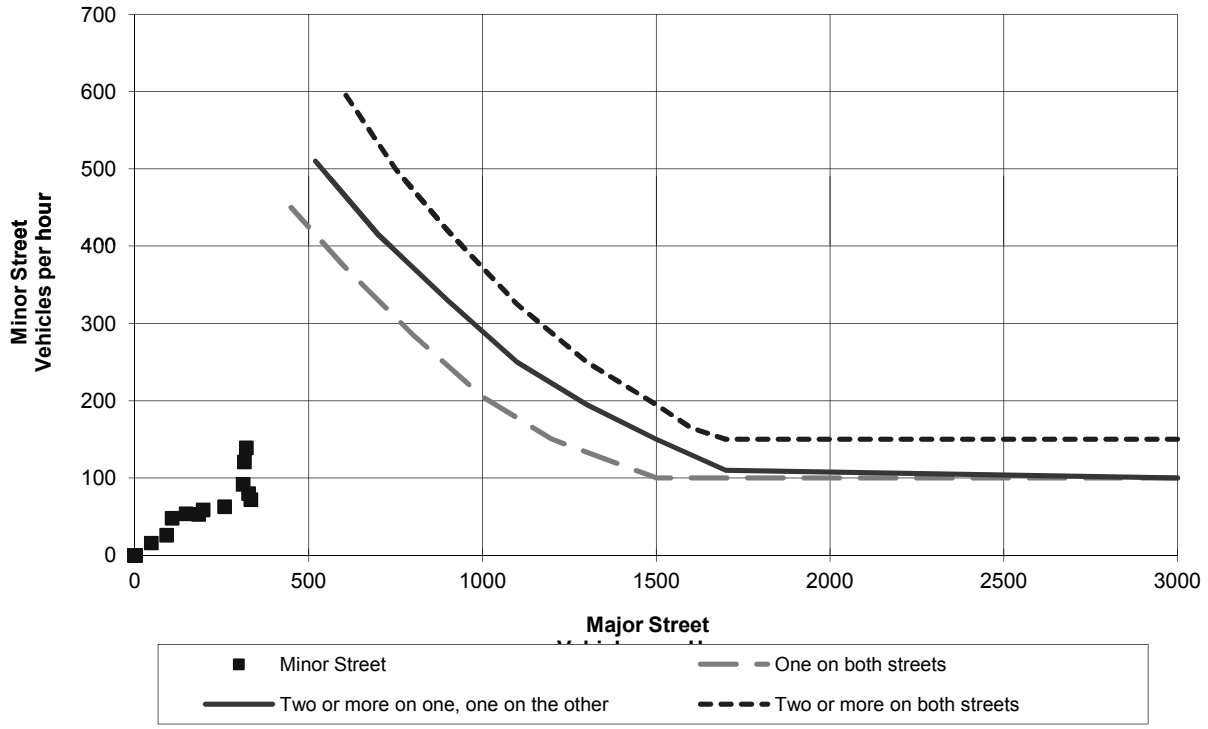
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? No

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hawley Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 3 - Hawley Street/Presque Isle Avenue

Major Street: Hawley Street Minor Street: Presque Isle

Intersection: Hawley Street at Presque Isle Avenue

City: Marquette

Date Performed: 2/7/2014 Performed By: KMM

Date Volumes Collected: 12/4/2013

	Major EB	Major WB	Minor NB	Minor SB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	42	21	58	17	63	58	138
07:00 - 08:00	66	52	72	19	118	72	209
08:00 - 09:00	68	66	68	5	134	68	207
09:00 - 10:00	53	53	53	12	106	53	171
10:00 - 11:00	55	36	46	8	91	46	145
11:00 - 12:00	65	53	80	41	118	80	239
12:00 - 13:00	80	73	94	41	153	94	288
13:00 - 14:00	61	70	78	19	131	78	228
14:00 - 15:00	53	68	68	29	121	68	218
15:00 - 16:00	74	79	72	39	153	72	264
16:00 - 17:00	74	80	69	44	154	69	267
17:00 - 18:00	72	83	65	61	155	65	281
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**763**	**734**	**823**	**335**	**1497**	**823**	**2655**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette
Date 2/7/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	63	58	No
07:00 - 08:00	118	72	No
08:00 - 09:00	134	68	No
09:00 - 10:00	106	53	No
10:00 - 11:00	91	46	No
11:00 - 12:00	118	80	No
12:00 - 13:00	153	94	No
13:00 - 14:00	131	78	No
14:00 - 15:00	121	68	No
15:00 - 16:00	153	72	No
16:00 - 17:00	154	69	No
17:00 - 18:00	155	65	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

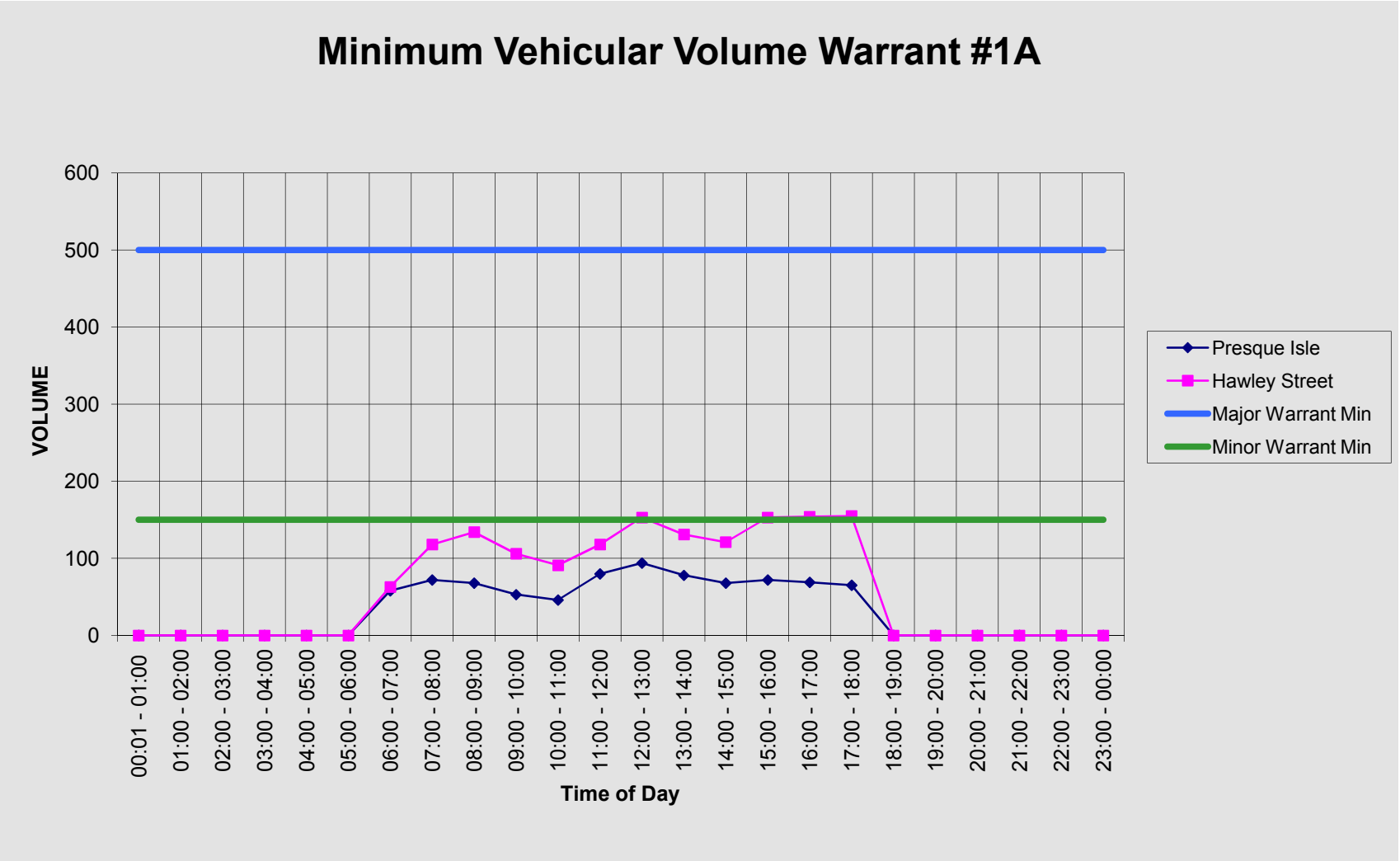
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Hawley Street at Presque Isle Avenue
Spot Number: 3 - Hawley Street/Presque Isle Avenue

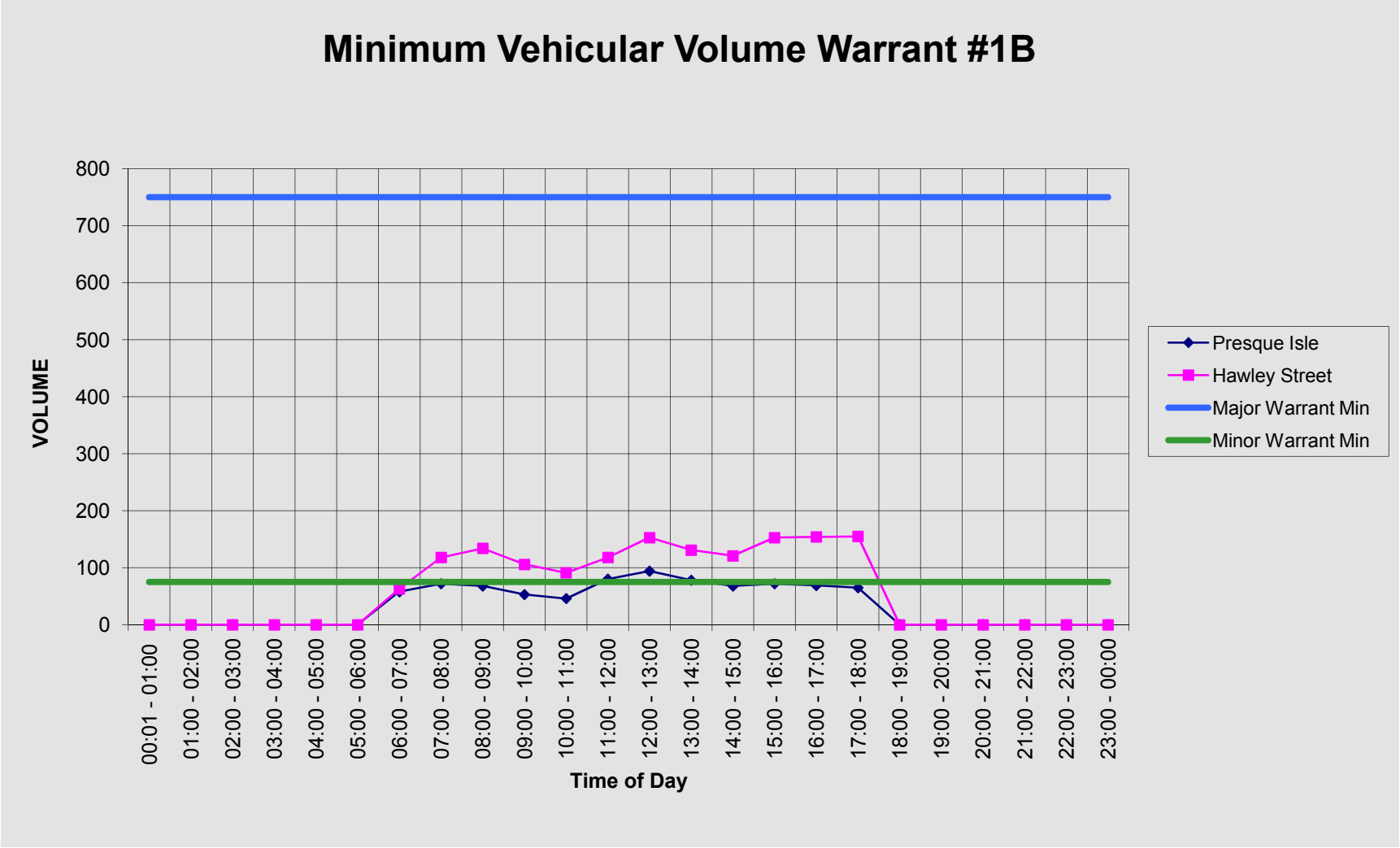
Major Street: Hawley Street
Minor Street: Presque Isle
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Hawley Street at Presque Isle Avenue
Spot Number: 3 - Hawley Street/Presque Isle Avenue

Major Street: Hawley Street
Minor Street: Presque Isle
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette

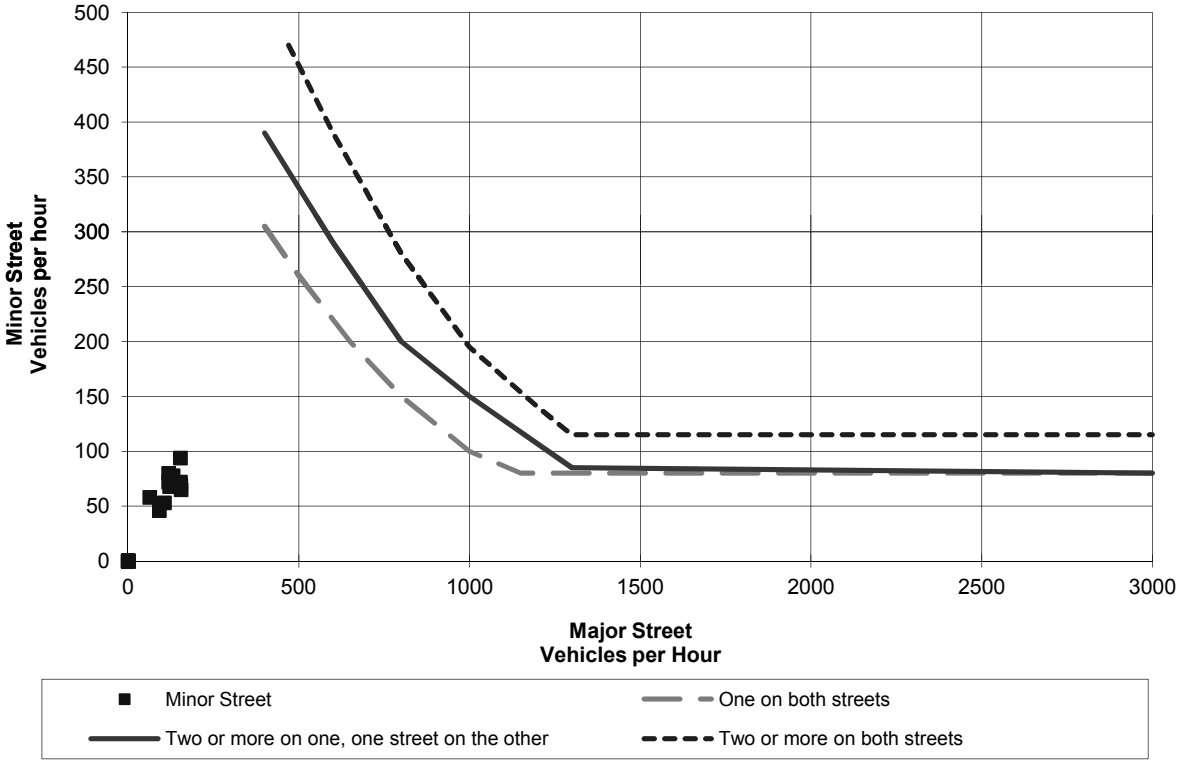
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? Enter Delay Here

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? Yes

Maximum vehicles per hour for minor street - 94 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 12:00 - 13:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes or No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette

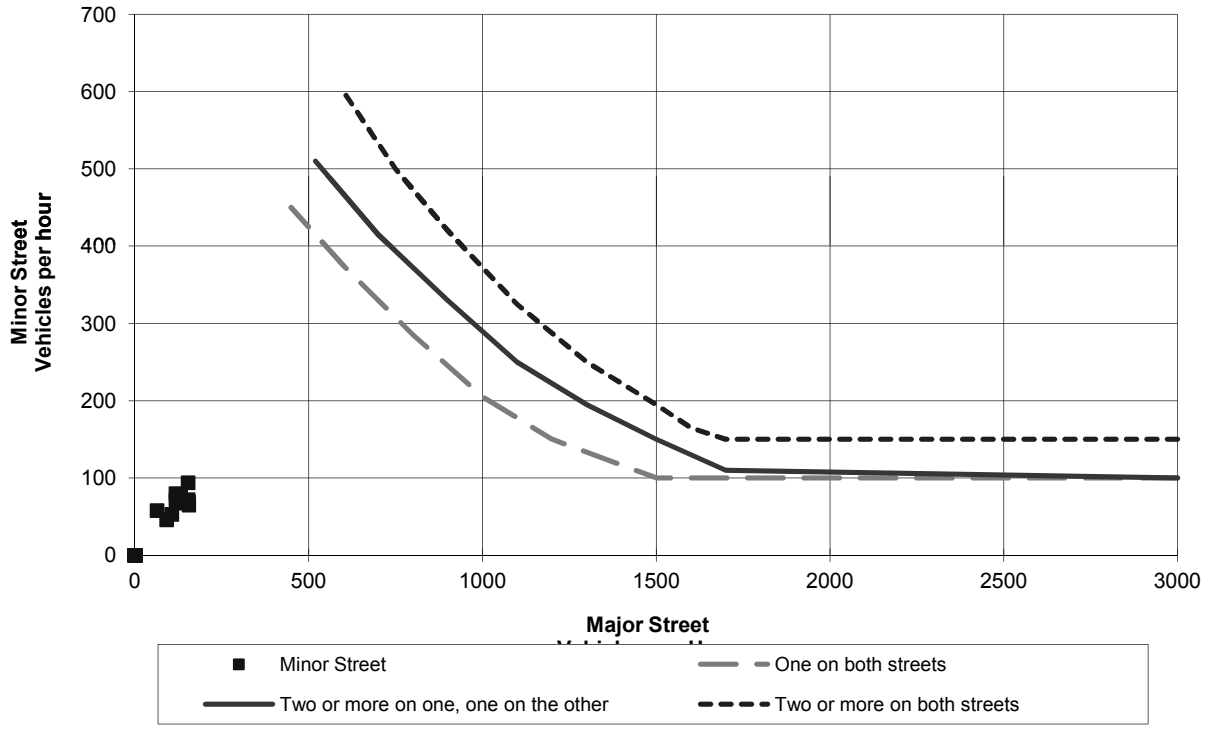
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? Yes, No, N/A

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? No

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Hawley Street at Presque Isle Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 4 Sugarloaf Ave and Hawley St

Major Street: Hawley St Minor Street: Sugarloaf Ave

Intersection: Sugarloaf Ave and Hawley St

City: Marquette

Date Performed: 2/10/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major WB	Major EB	Minor NB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	56	87	147	0	143	147	290
07:00 - 08:00	86	118	144	0	204	144	348
08:00 - 09:00	66	103	117	0	169	117	286
09:00 - 10:00	60	106	117	0	166	117	283
10:00 - 11:00	87	132	108	0	219	108	327
11:00 - 12:00	115	143	127	0	258	127	385
12:00 - 13:00	132	125	158	0	257	158	415
13:00 - 14:00	126	146	158	0	272	158	430
14:00 - 15:00	142	148	190	0	290	190	480
15:00 - 16:00	157	207	177	0	364	177	541
16:00 - 17:00	155	202	192	0	357	192	549
17:00 - 18:00	190	230	220	0	420	220	640
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1372**	**1747**	**1855**	**0**	**3119**	**1855**	**4974**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette
Date 2/10/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	143	147	No
07:00 - 08:00	204	144	No
08:00 - 09:00	169	117	No
09:00 - 10:00	166	117	No
10:00 - 11:00	219	108	No
11:00 - 12:00	258	127	No
12:00 - 13:00	257	158	No
13:00 - 14:00	272	158	No
14:00 - 15:00	290	190	No
15:00 - 16:00	364	177	No
16:00 - 17:00	357	192	No
17:00 - 18:00	420	220	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

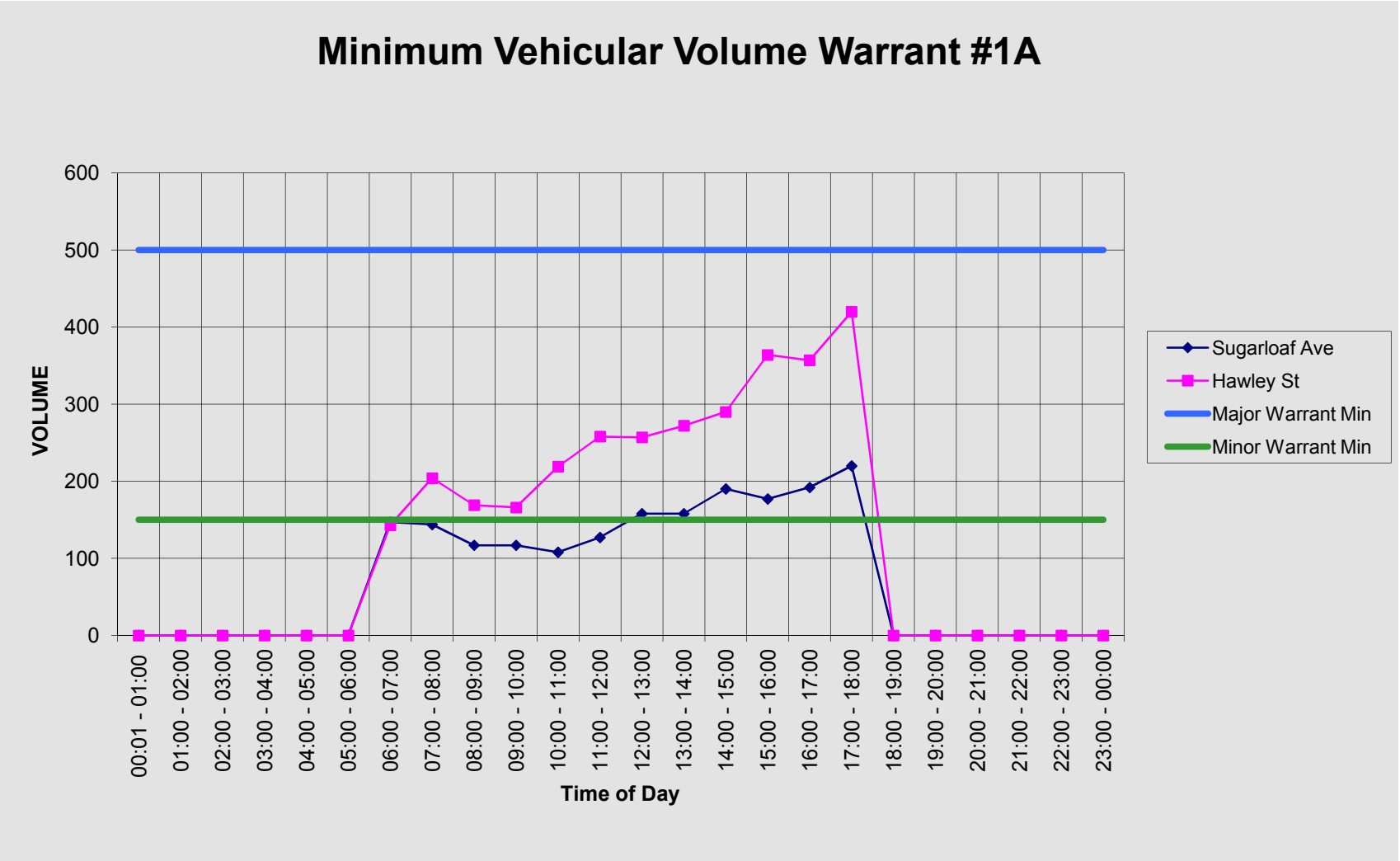
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Sugarloaf Ave and Hawley St
Spot Number: 4 Sugarloaf Ave and Hawley St

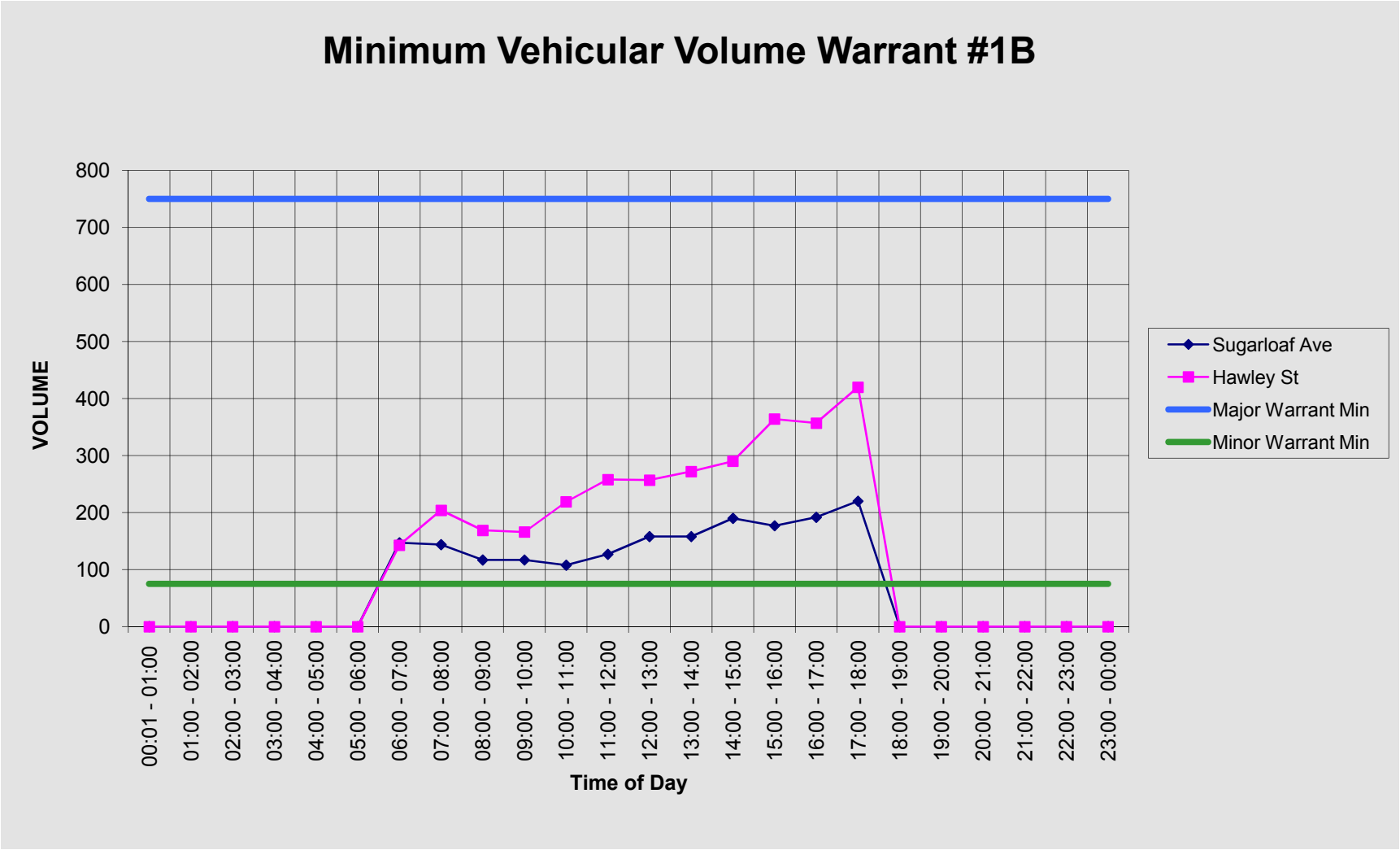
Major Street: Hawley St
Minor Street: Sugarloaf Ave
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Sugarloaf Ave and Hawley St
Spot Number: 4 Sugarloaf Ave and Hawley St

Major Street: Hawley St
Minor Street: Sugarloaf Ave
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette

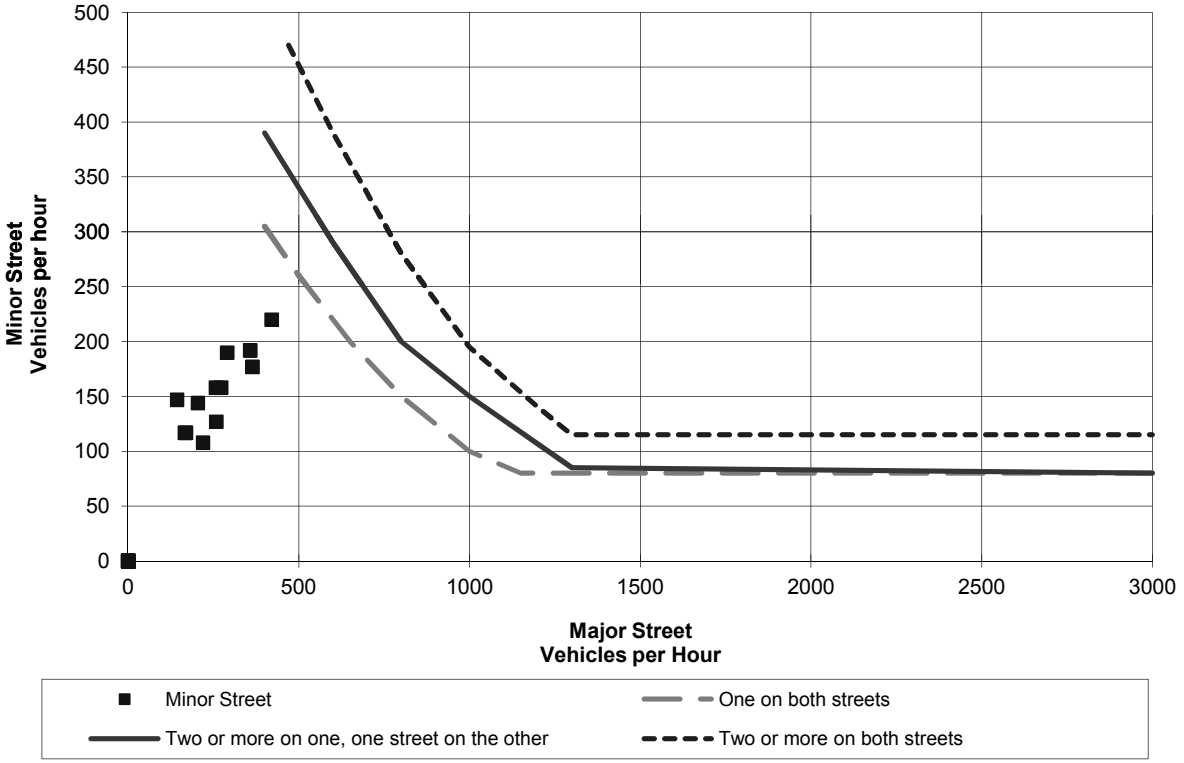
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 220 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette

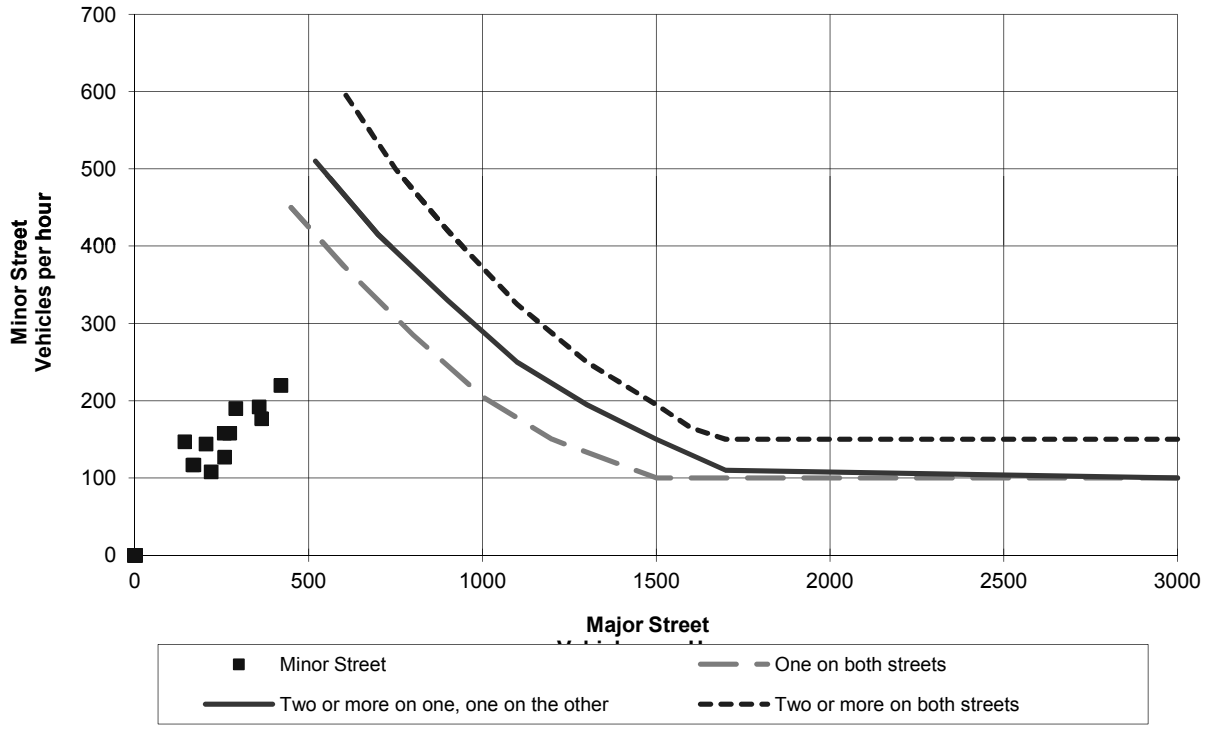
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? No

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Sugarloaf Ave and Hawley St
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 8 McClellan Avenue and Cleveland Street

Major Street: McClellan Avenue Minor Street: Cleveland Street

Intersection: Mcclellan Avenue and Cleveland Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	80	192	32	2	272	32	306
07:00 - 08:00	211	550	49	10	761	49	820
08:00 - 09:00	242	393	41	6	635	41	682
09:00 - 10:00	299	370	69	4	669	69	742
10:00 - 11:00	287	353	62	5	640	62	707
11:00 - 12:00	343	386	49	1	729	49	779
12:00 - 13:00	364	453	72	5	817	72	894
13:00 - 14:00	307	395	46	4	702	46	752
14:00 - 15:00	377	443	91	4	820	91	915
15:00 - 16:00	432	445	99	4	877	99	980
16:00 - 17:00	470	436	86	7	906	86	999
17:00 - 18:00	422	421	78	8	843	78	929
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3834**	**4837**	**774**	**60**	**8671**	**774**	**9505**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	272	32	No
07:00 - 08:00	761	49	No
08:00 - 09:00	635	41	No
09:00 - 10:00	669	69	No
10:00 - 11:00	640	62	No
11:00 - 12:00	729	49	No
12:00 - 13:00	817	72	No
13:00 - 14:00	702	46	No
14:00 - 15:00	820	91	No
15:00 - 16:00	877	99	No
16:00 - 17:00	906	86	No
17:00 - 18:00	843	78	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

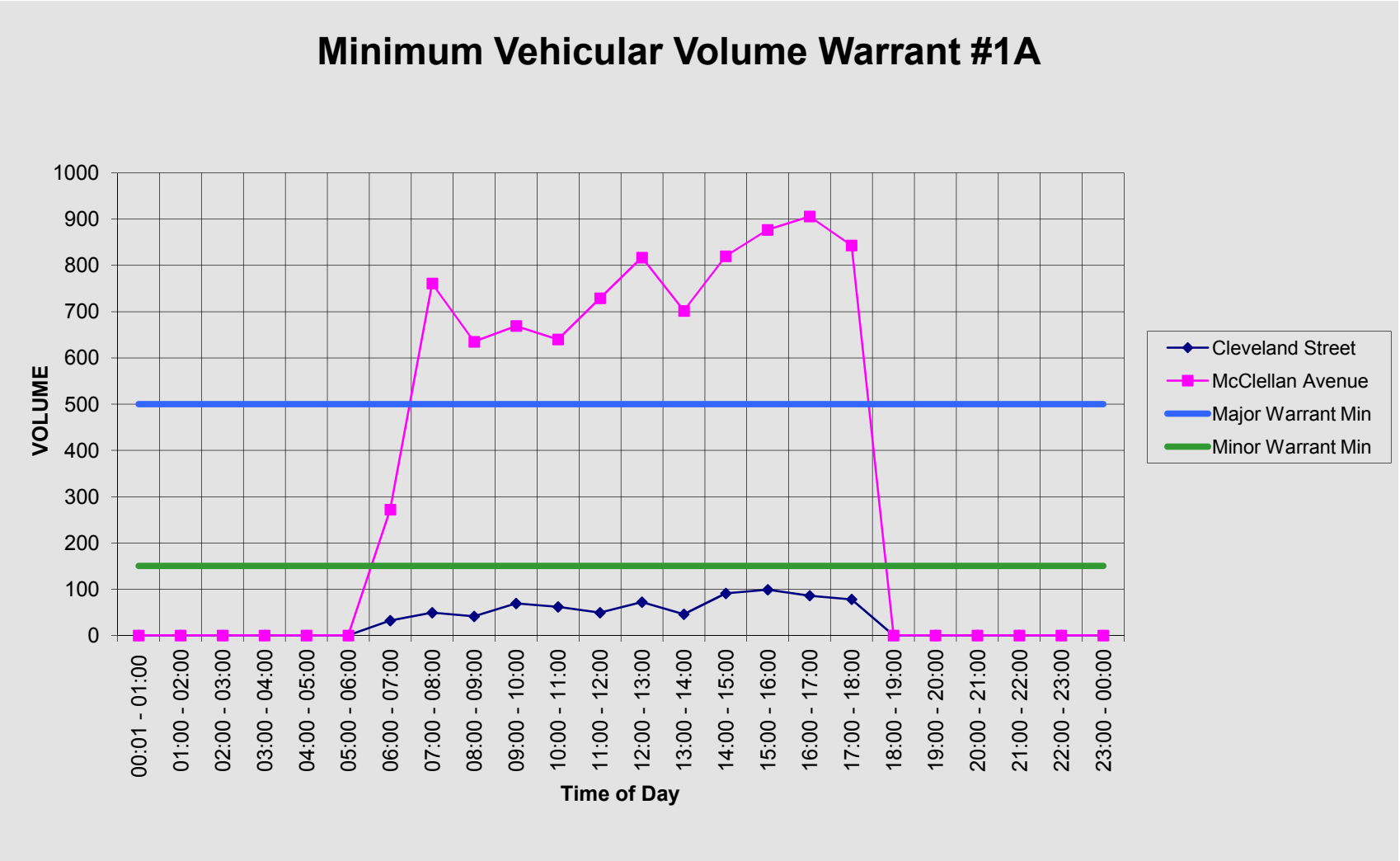
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Mcclellan Avenue and Cleveland Street
Spot Number: 8 McClellan Avenue and Cleveland Street

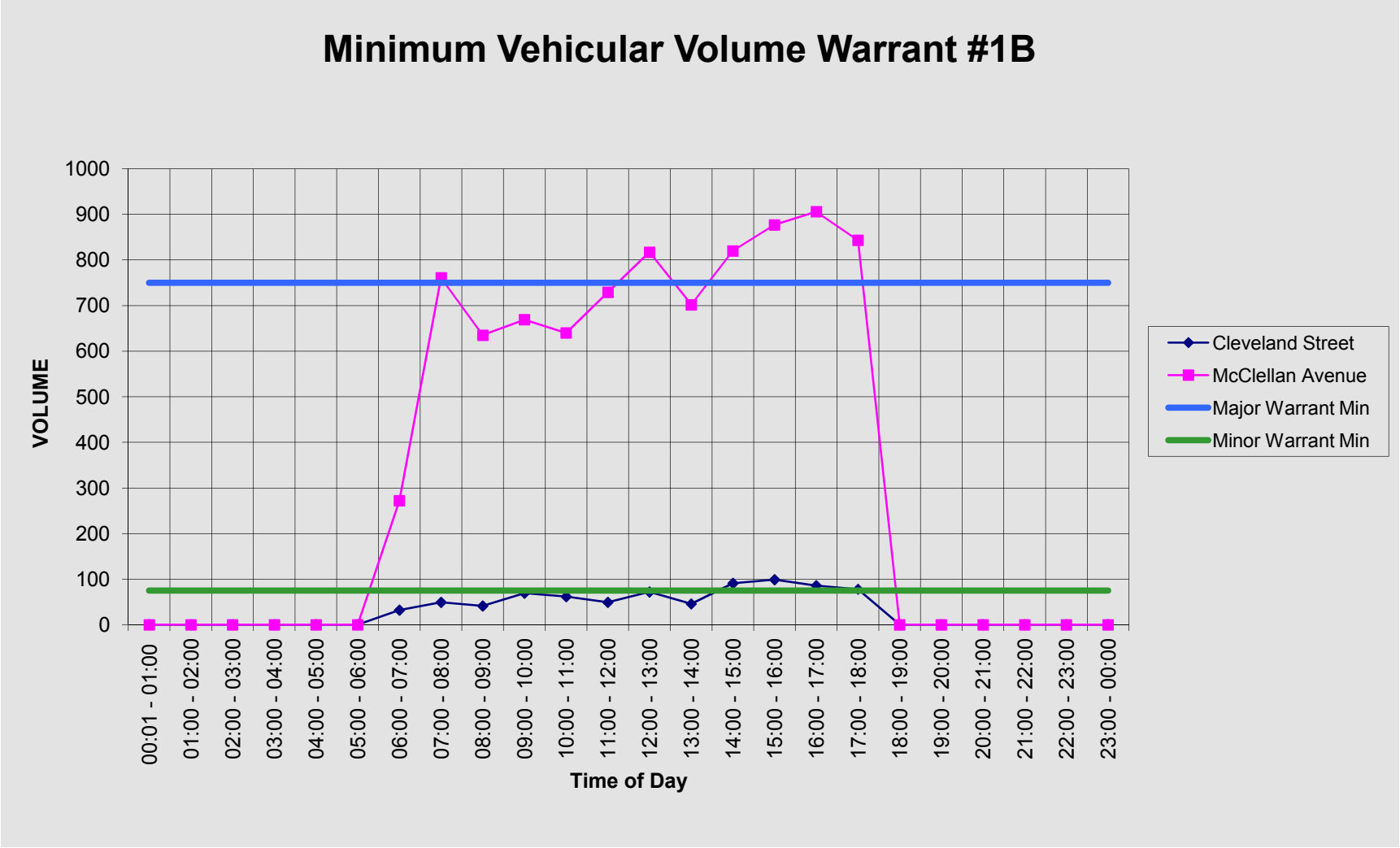
Major Street: McClellan Avenue
Minor Street: Cleveland Street
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Mcclellan Avenue and Cleveland Street
Spot Number: 8 McClellan Avenue and Cleveland Street

Major Street: McClellan Avenue
Minor Street: Cleveland Street
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 4

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette

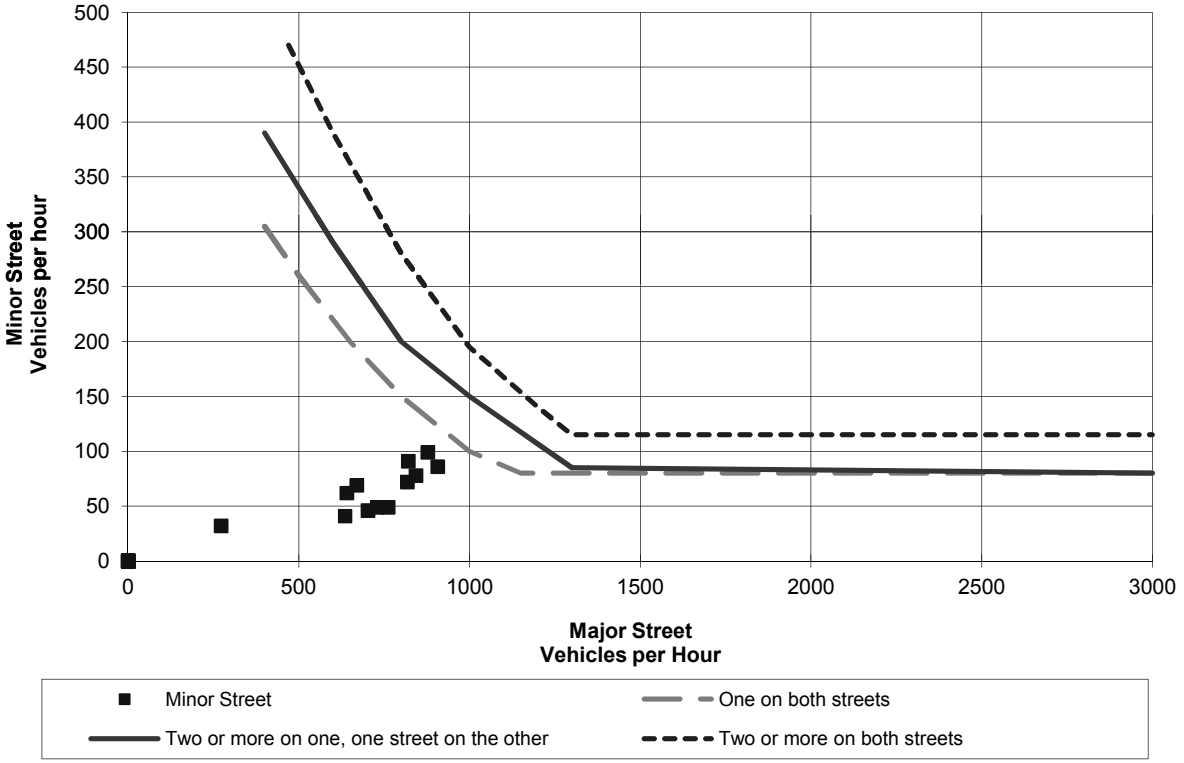
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **Yes, No, N/A**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.47

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 99 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 15:00 - 16:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette

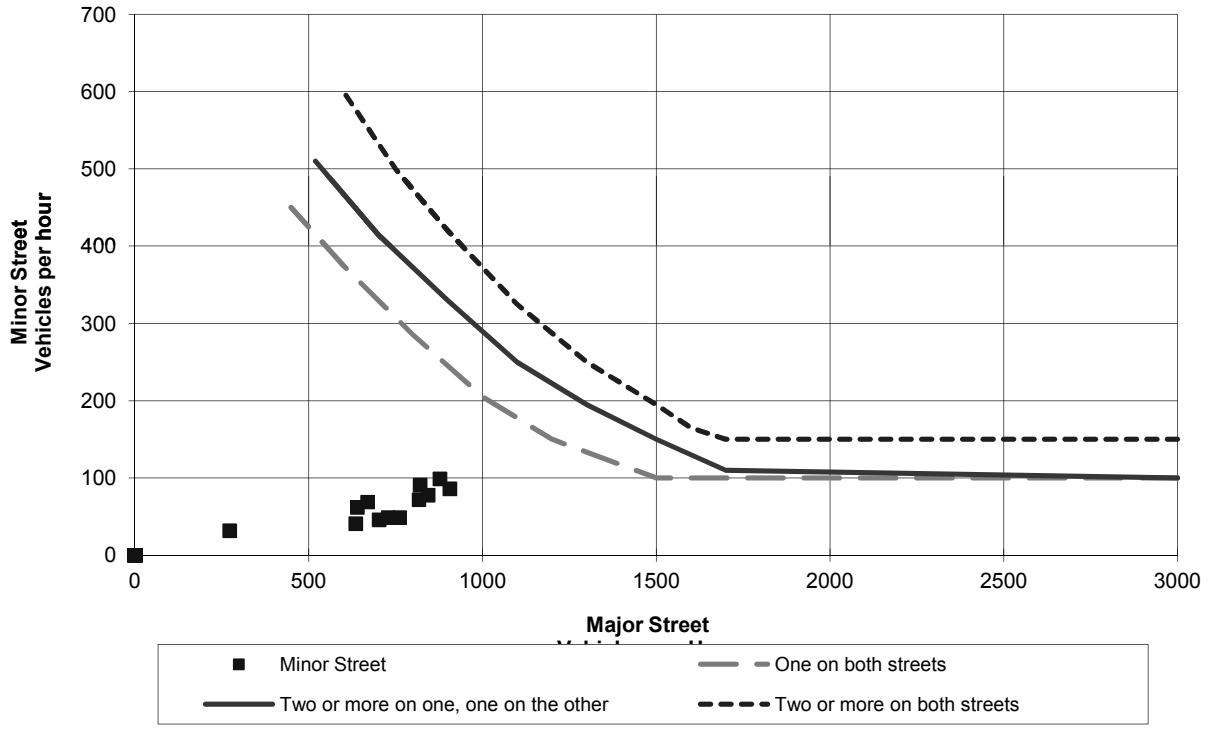
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Mcclellan Avenue and Cleveland Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 10 Presque Isle Avenue and Center Street

Major Street: Presque Isle Avenue Minor Street: Center Street

Intersection: Presque Isle Avenue and Center Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	86	119	0	9	205	9	214
07:00 - 08:00	144	211	2	25	355	25	382
08:00 - 09:00	172	195	3	25	367	25	395
09:00 - 10:00	220	233	7	33	453	33	493
10:00 - 11:00	217	280	8	30	497	30	535
11:00 - 12:00	308	350	7	46	658	46	711
12:00 - 13:00	332	396	10	66	728	66	804
13:00 - 14:00	302	348	1	71	650	71	722
14:00 - 15:00	314	401	10	51	715	51	776
15:00 - 16:00	404	422	7	69	826	69	902
16:00 - 17:00	409	404	7	78	813	78	898
17:00 - 18:00	390	476	17	60	866	60	943
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3298**	**3835**	**79**	**563**	**7133**	**563**	**7775**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	205	9	No
07:00 - 08:00	355	25	No
08:00 - 09:00	367	25	No
09:00 - 10:00	453	33	No
10:00 - 11:00	497	30	No
11:00 - 12:00	658	46	No
12:00 - 13:00	728	66	No
13:00 - 14:00	650	71	No
14:00 - 15:00	715	51	No
15:00 - 16:00	826	69	No
16:00 - 17:00	813	78	No
17:00 - 18:00	866	60	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

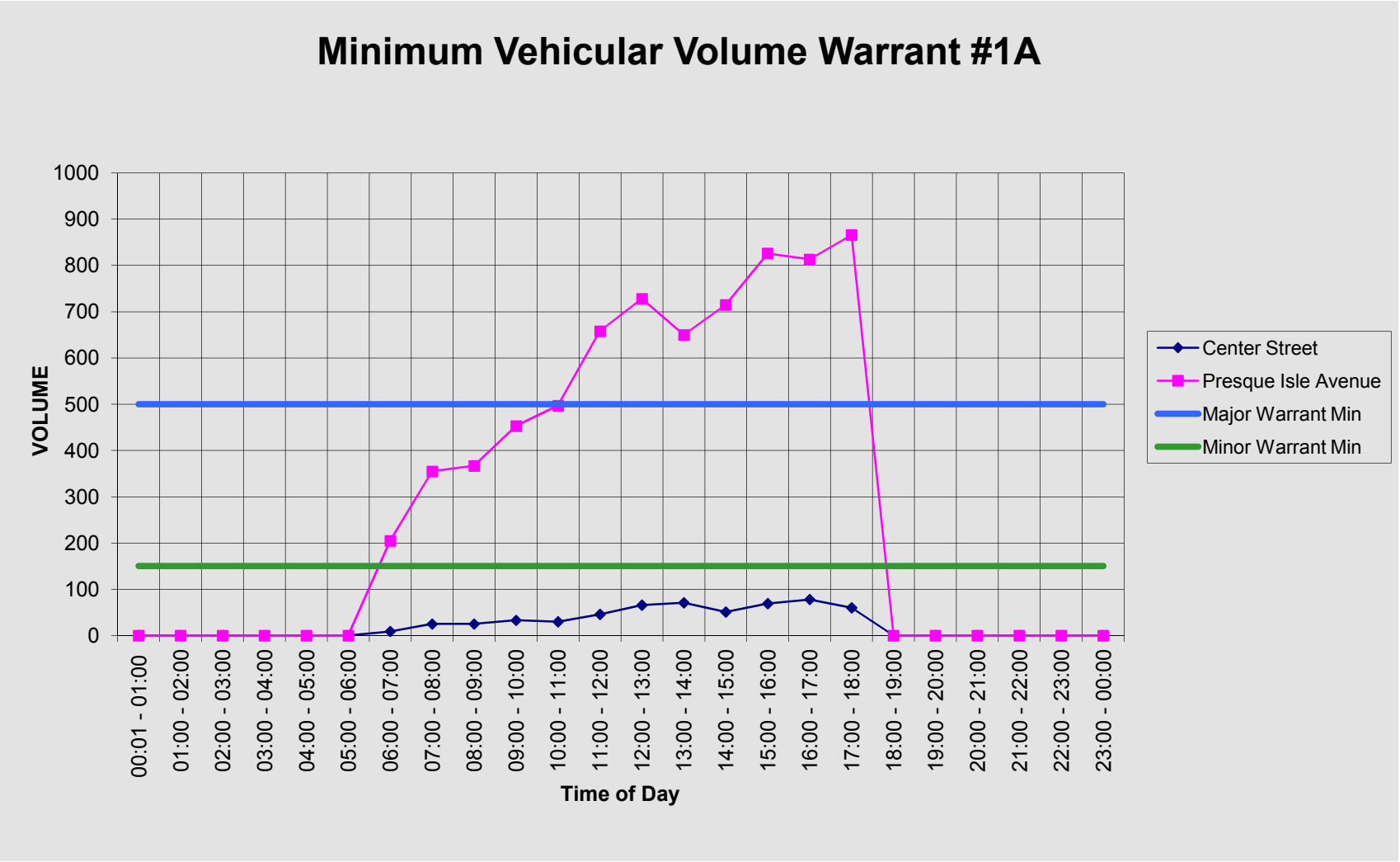
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Presque Isle Avenue and Center Street
Spot Number: 10 Presque Isle Avenue and Center Street

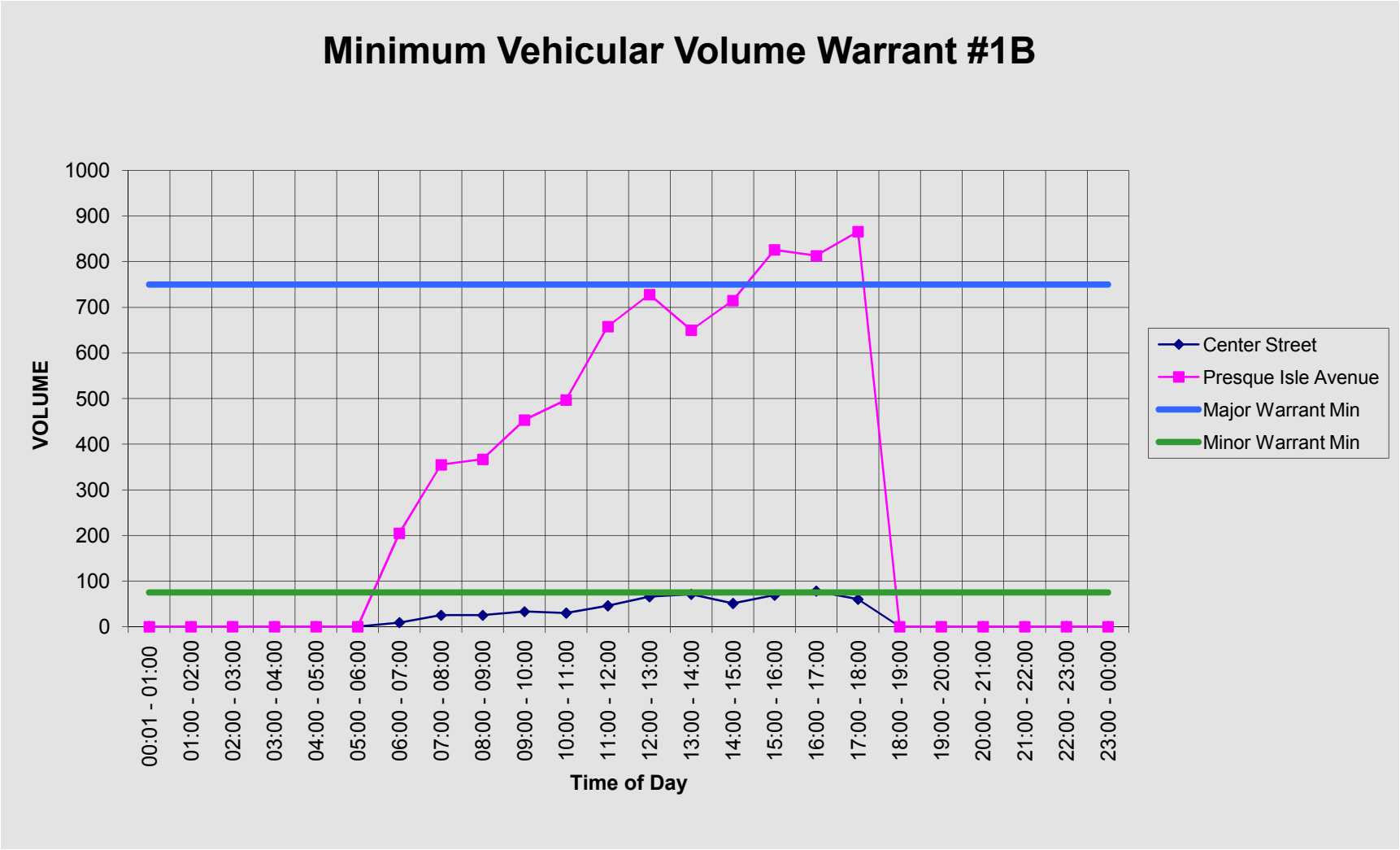
Major Street: Presque Isle Avenue
Minor Street: Center Street
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Presque Isle Avenue and Center Street
Spot Number: 10 Presque Isle Avenue and Center Street

Major Street: Presque Isle Avenue
Minor Street: Center Street
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 1

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette

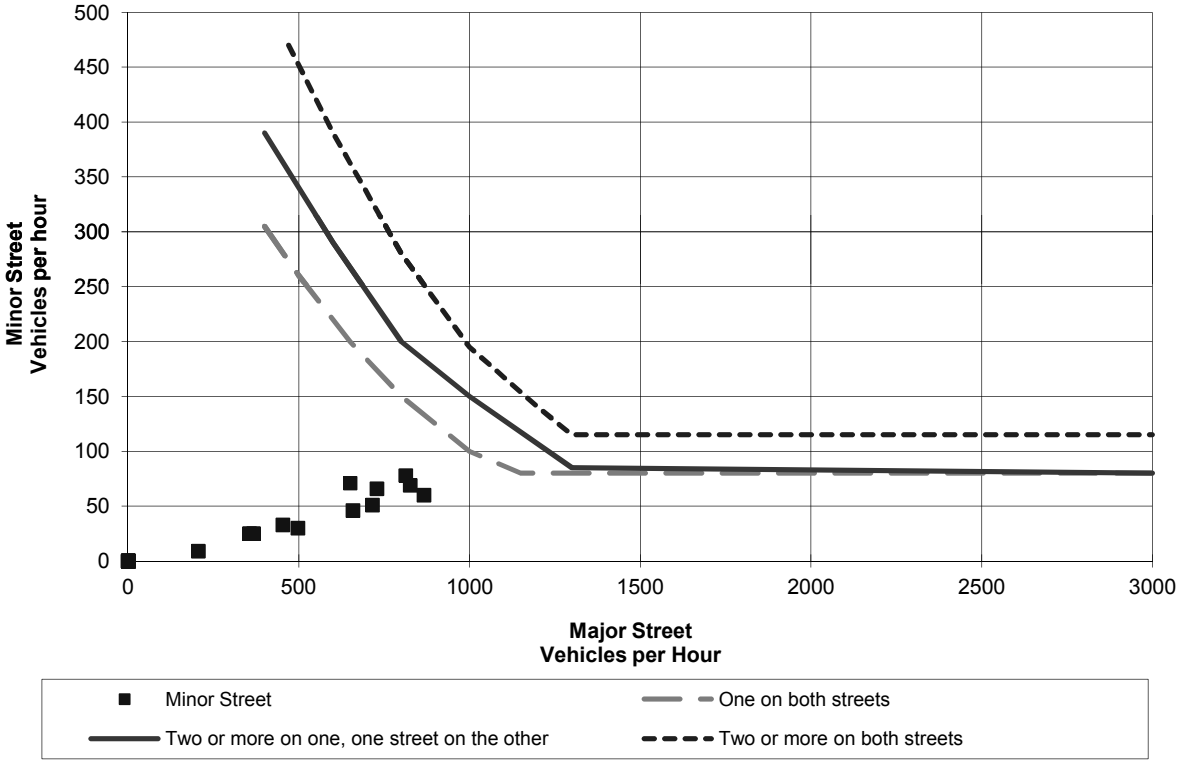
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 78 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette

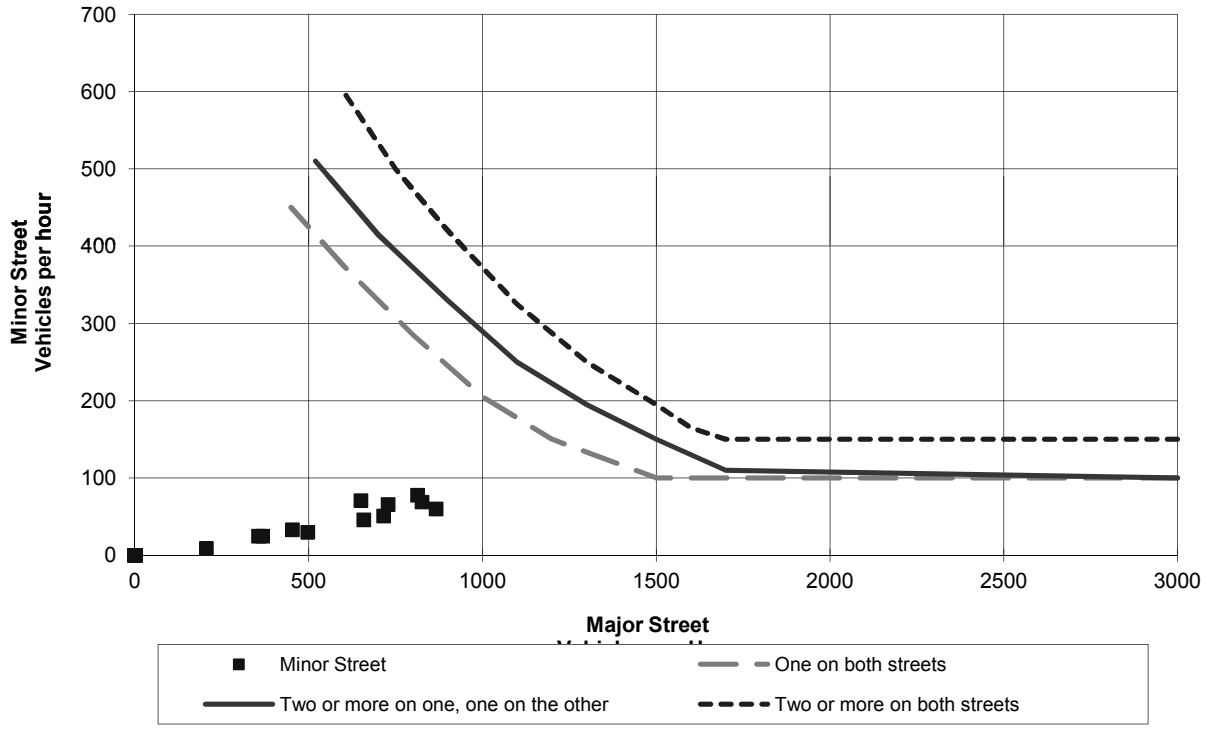
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Presque Isle Avenue and Center Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 12 Lakeshore Boulevard and Wright Street

Major Street: Lakeshore Blvd Minor Street: Wright St

Intersection: Lakeshore Blvd and Wright St

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major SB	Major NB	Minor EB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	8	62	7	0	70	7	77
07:00 - 08:00	40	86	25	0	126	25	151
08:00 - 09:00	48	107	27	0	155	27	182
09:00 - 10:00	68	101	48	0	169	48	217
10:00 - 11:00	96	102	64	0	198	64	262
11:00 - 12:00	89	117	75	0	206	75	281
12:00 - 13:00	91	181	78	0	272	78	350
13:00 - 14:00	139	219	86	0	358	86	444
14:00 - 15:00	147	177	86	0	324	86	410
15:00 - 16:00	156	199	124	0	355	124	479
16:00 - 17:00	177	204	119	0	381	119	500
17:00 - 18:00	193	197	131	0	390	131	521
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1252**	**1752**	**870**	**0**	**3004**	**870**	**3874**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	70	7	No
07:00 - 08:00	126	25	No
08:00 - 09:00	155	27	No
09:00 - 10:00	169	48	No
10:00 - 11:00	198	64	No
11:00 - 12:00	206	75	No
12:00 - 13:00	272	78	No
13:00 - 14:00	358	86	No
14:00 - 15:00	324	86	No
15:00 - 16:00	355	124	No
16:00 - 17:00	381	119	No
17:00 - 18:00	390	131	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

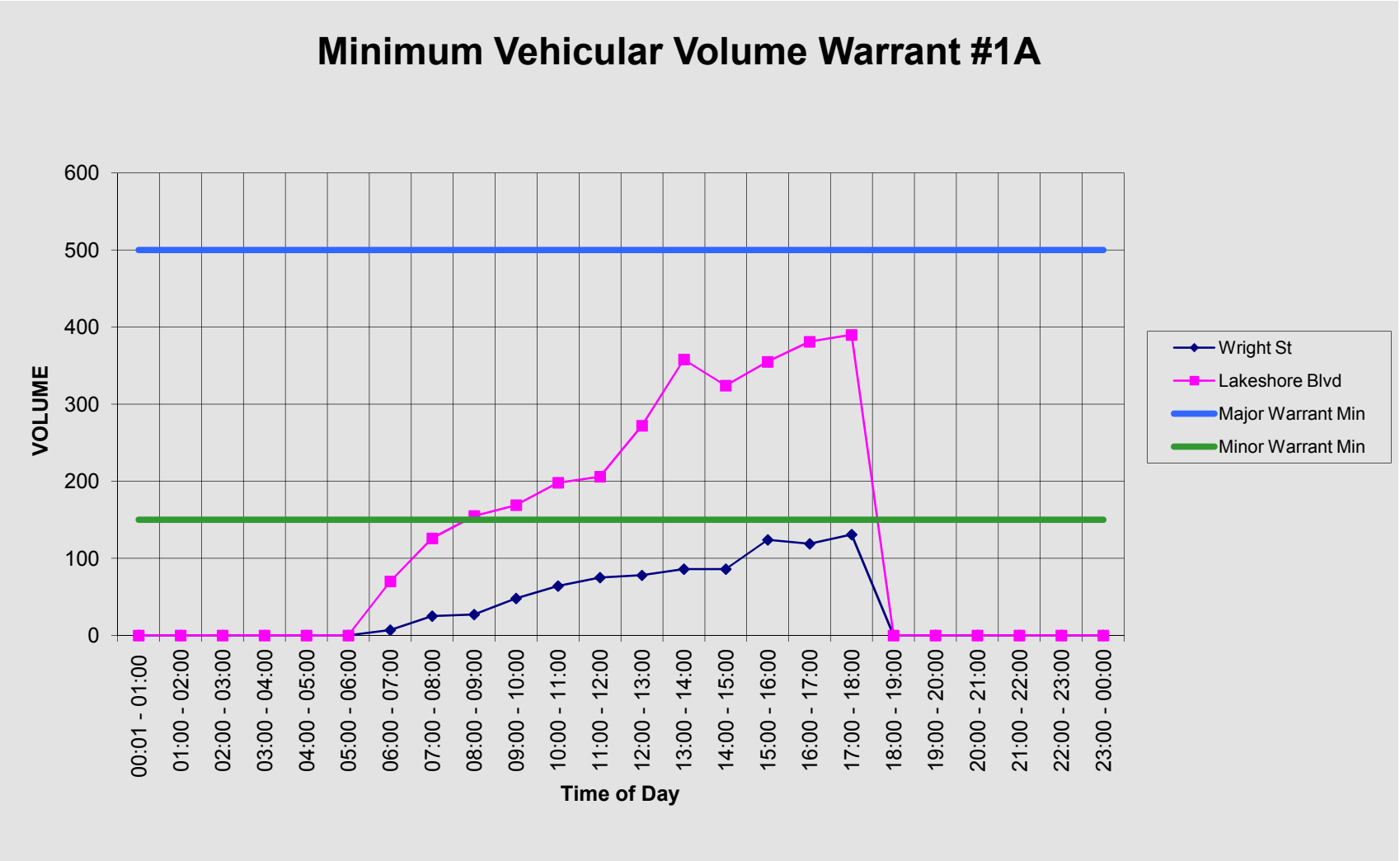
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lakeshore Blvd and Wright St
Spot Number: 12 Lakeshore Boulevard and Wright Street

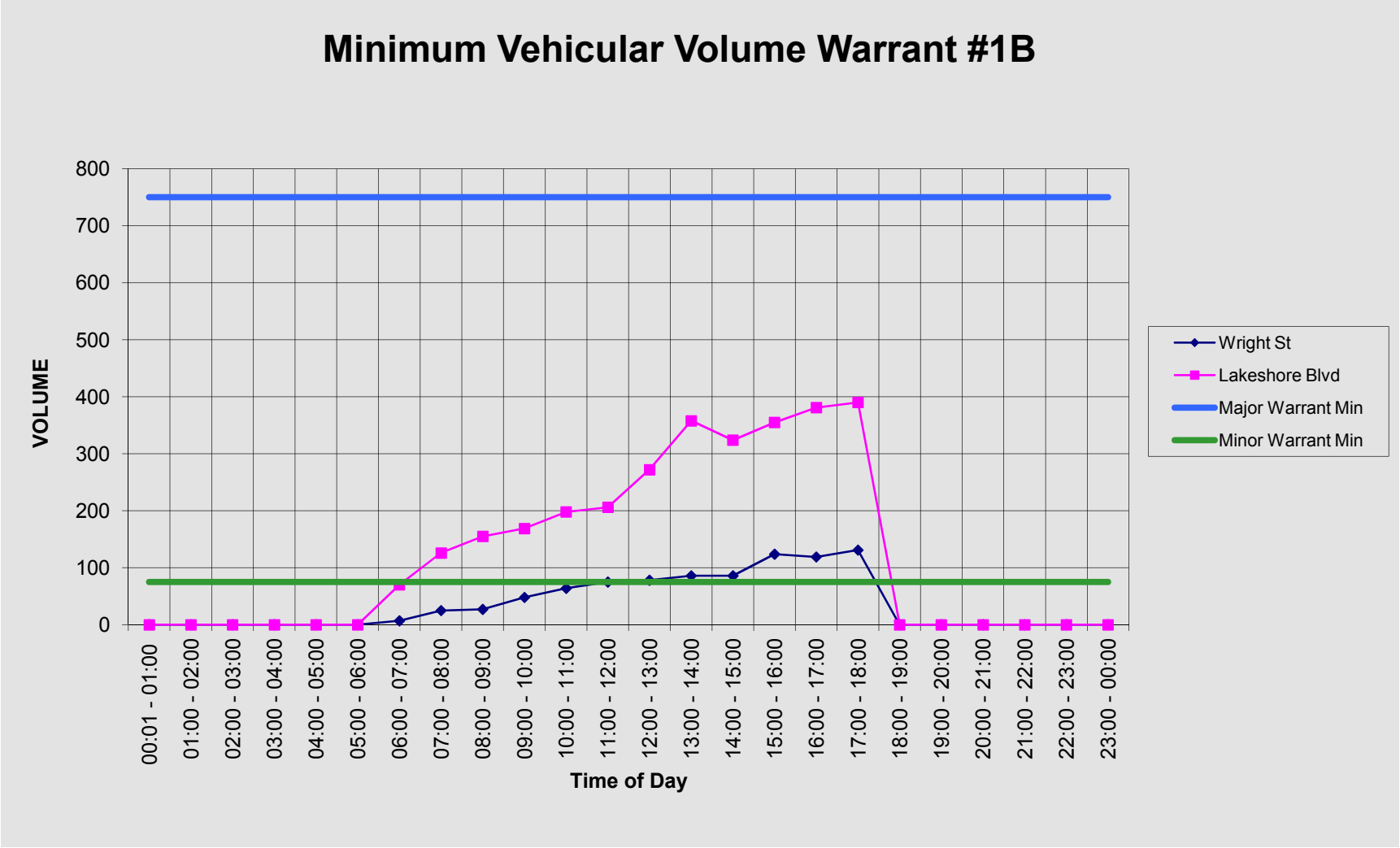
Major Street: Lakeshore Blvd
Minor Street: Wright St
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lakeshore Blvd and Wright St
Spot Number: 12 Lakeshore Boulevard and Wright Street

Major Street: Lakeshore Blvd
Minor Street: Wright St
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette

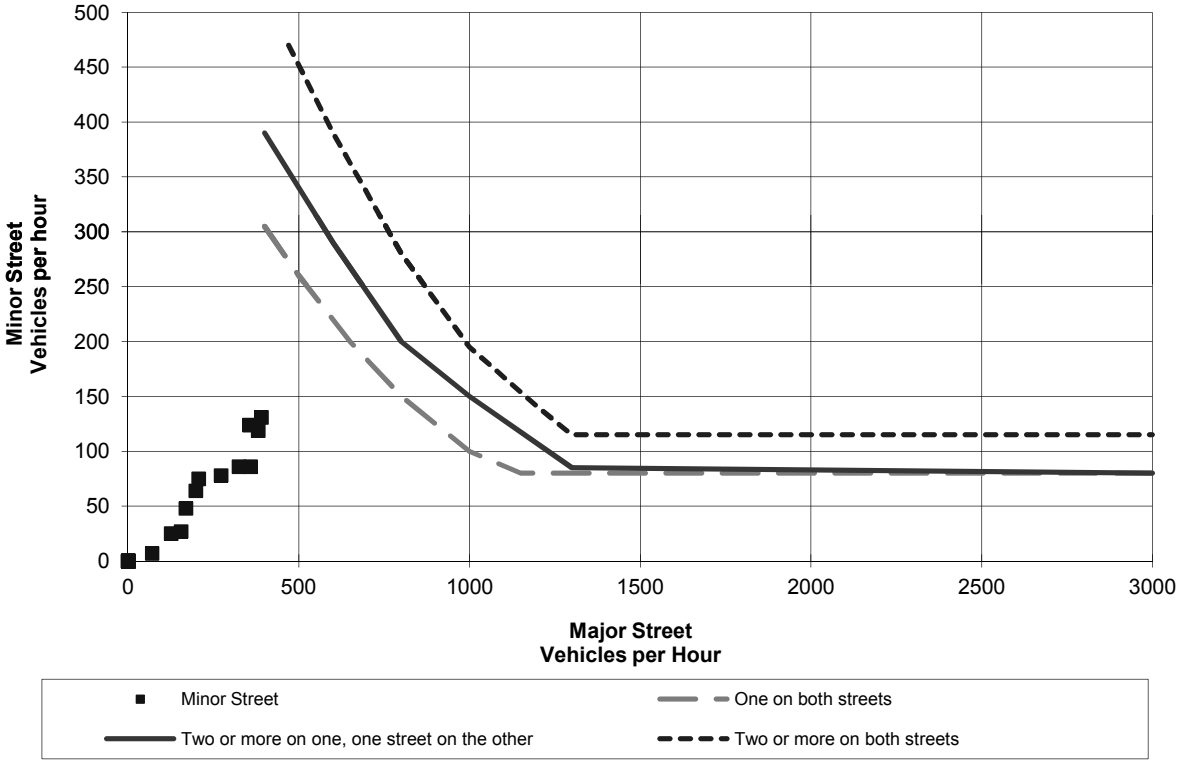
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 131 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette

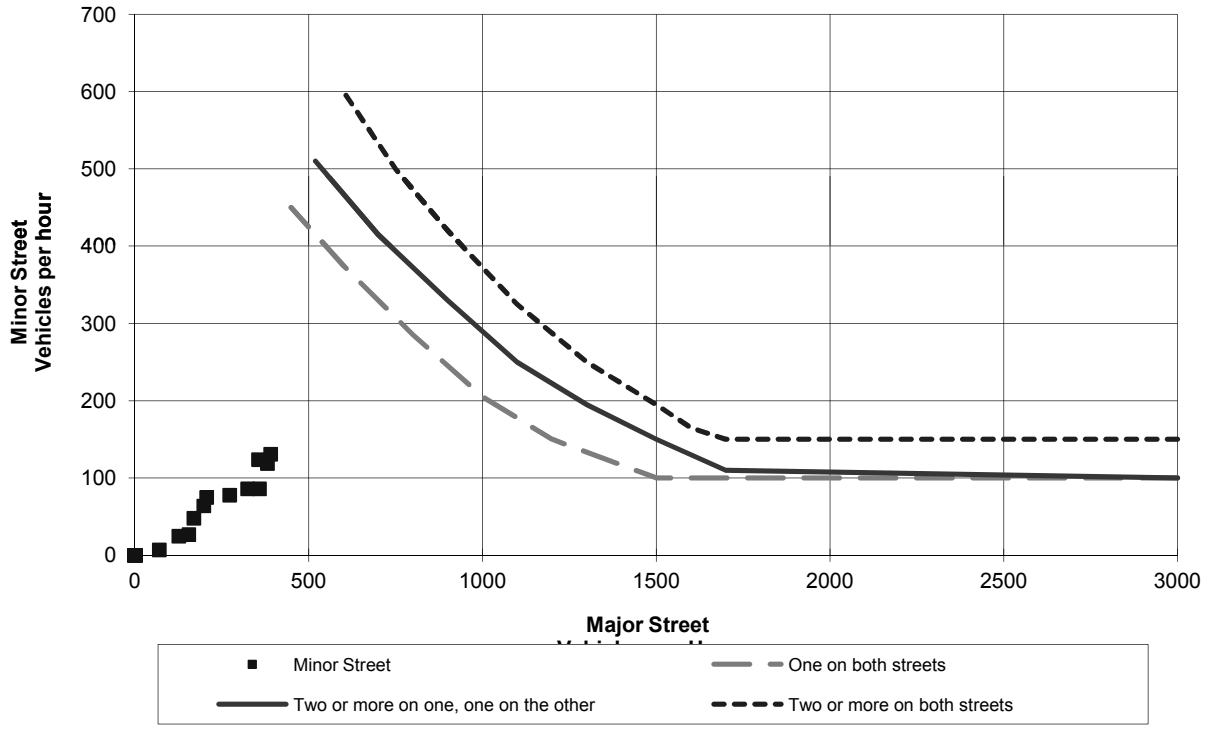
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Wright St
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 13 Pine St and Lakeshore Blvd

Major Street: Lakeshore Blvd Minor Street: Pine St

Intersection: Pine St and Lakeshore Blvd

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major SSEB	Major NWB	Minor NEB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	11	48	11	0	59	11	70
07:00 - 08:00	50	79	15	0	129	15	144
08:00 - 09:00	65	87	23	0	152	23	175
09:00 - 10:00	99	82	20	0	181	20	201
10:00 - 11:00	128	86	18	0	214	18	232
11:00 - 12:00	129	105	19	0	234	19	253
12:00 - 13:00	136	153	34	0	289	34	323
13:00 - 14:00	174	180	36	0	354	36	390
14:00 - 15:00	179	157	27	0	336	27	363
15:00 - 16:00	221	158	48	0	379	48	427
16:00 - 17:00	252	151	56	0	403	56	459
17:00 - 18:00	262	149	50	0	411	50	461
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1706**	**1435**	**357**	**0**	**3141**	**357**	**3498**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine St and Lakeshore Blvd
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	59	11	No
07:00 - 08:00	129	15	No
08:00 - 09:00	152	23	No
09:00 - 10:00	181	20	No
10:00 - 11:00	214	18	No
11:00 - 12:00	234	19	No
12:00 - 13:00	289	34	No
13:00 - 14:00	354	36	No
14:00 - 15:00	336	27	No
15:00 - 16:00	379	48	No
16:00 - 17:00	403	56	No
17:00 - 18:00	411	50	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

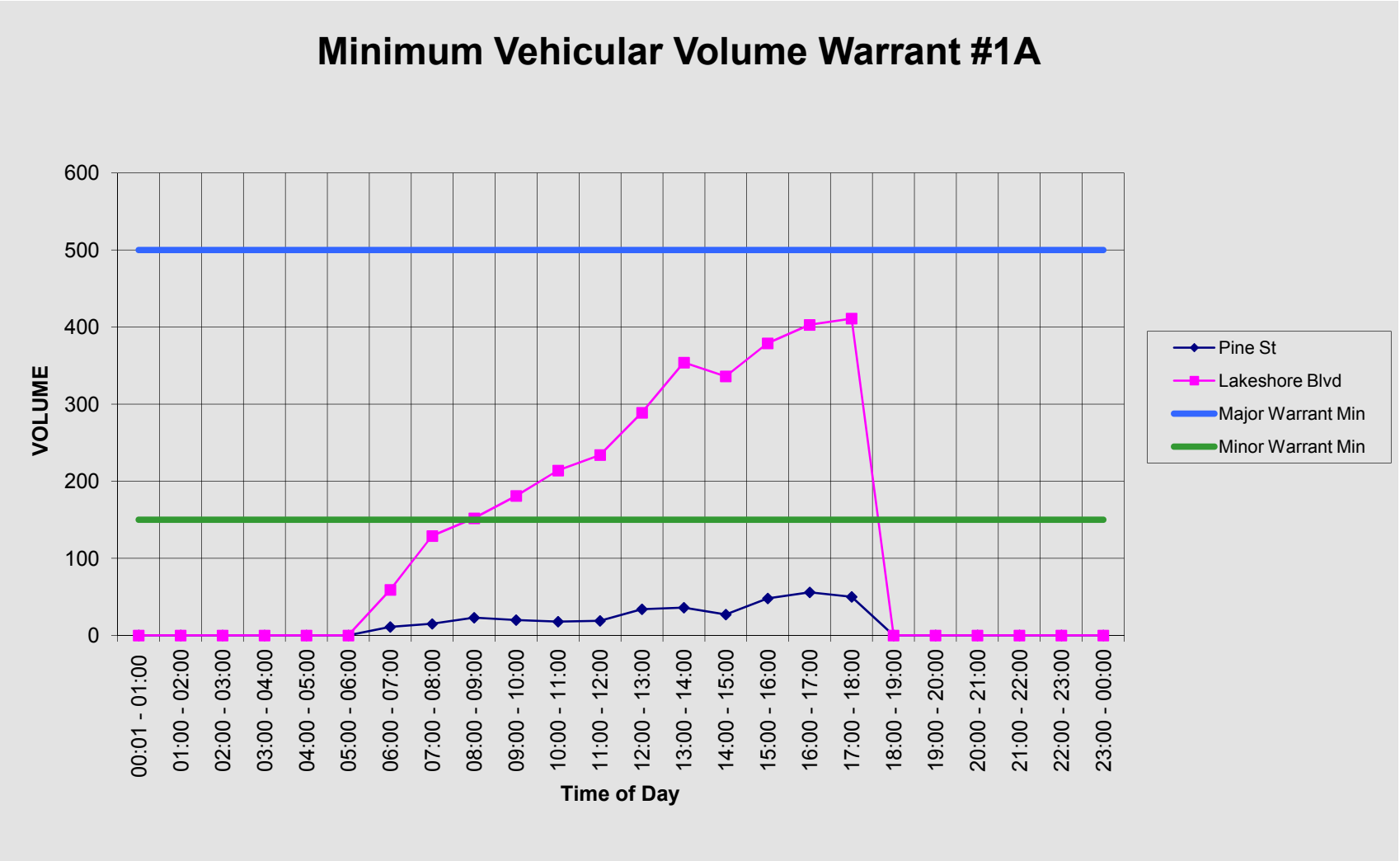
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Pine St and Lakeshore Blvd
Spot Number: 13 Pine St and Lakeshore Blvd

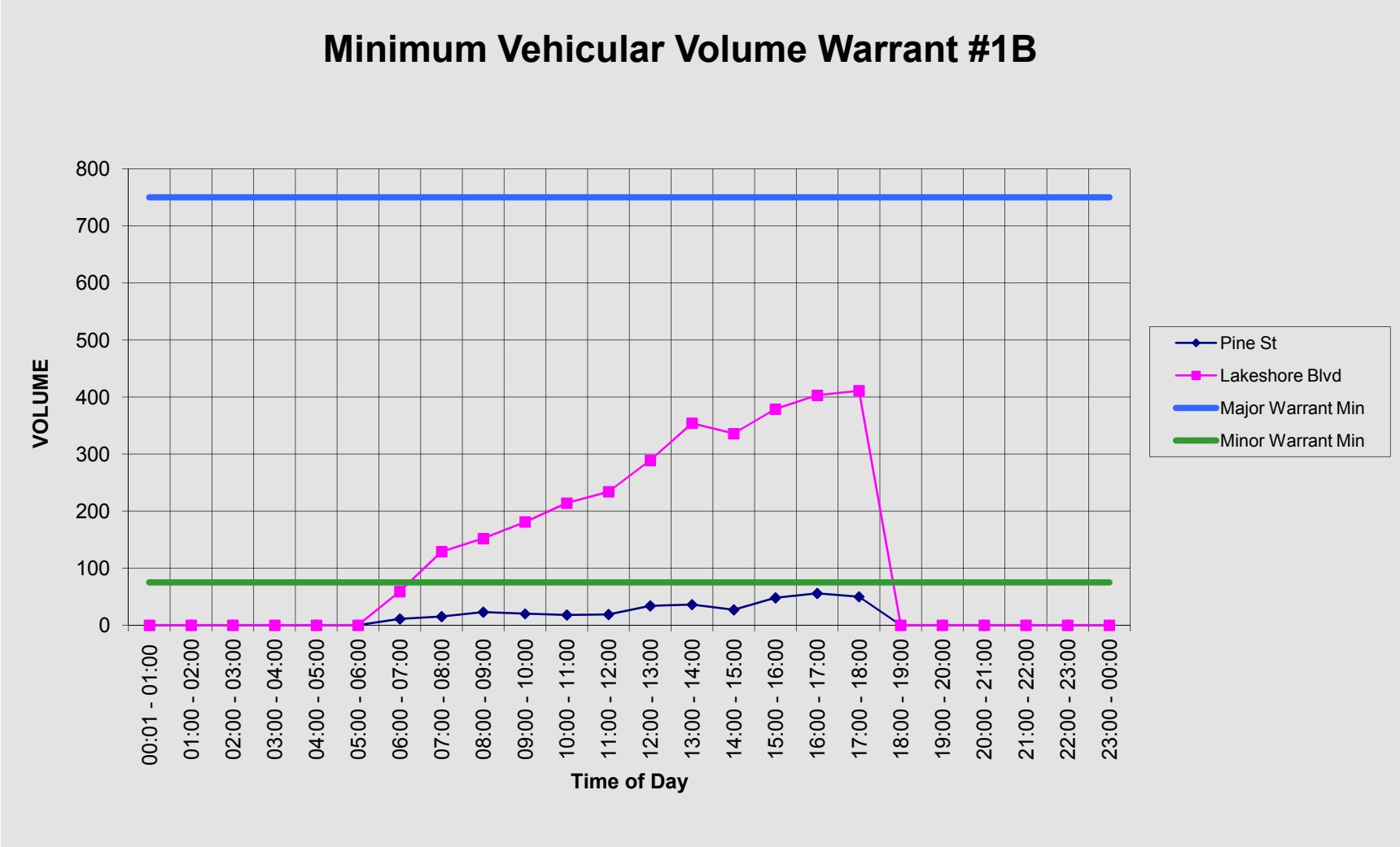
Major Street: Lakeshore Blvd
Minor Street: Pine St
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Pine St and Lakeshore Blvd
Spot Number: 13 Pine St and Lakeshore Blvd

Major Street: Lakeshore Blvd
Minor Street: Pine St
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine St and Lakeshore Blvd
City: Marquette

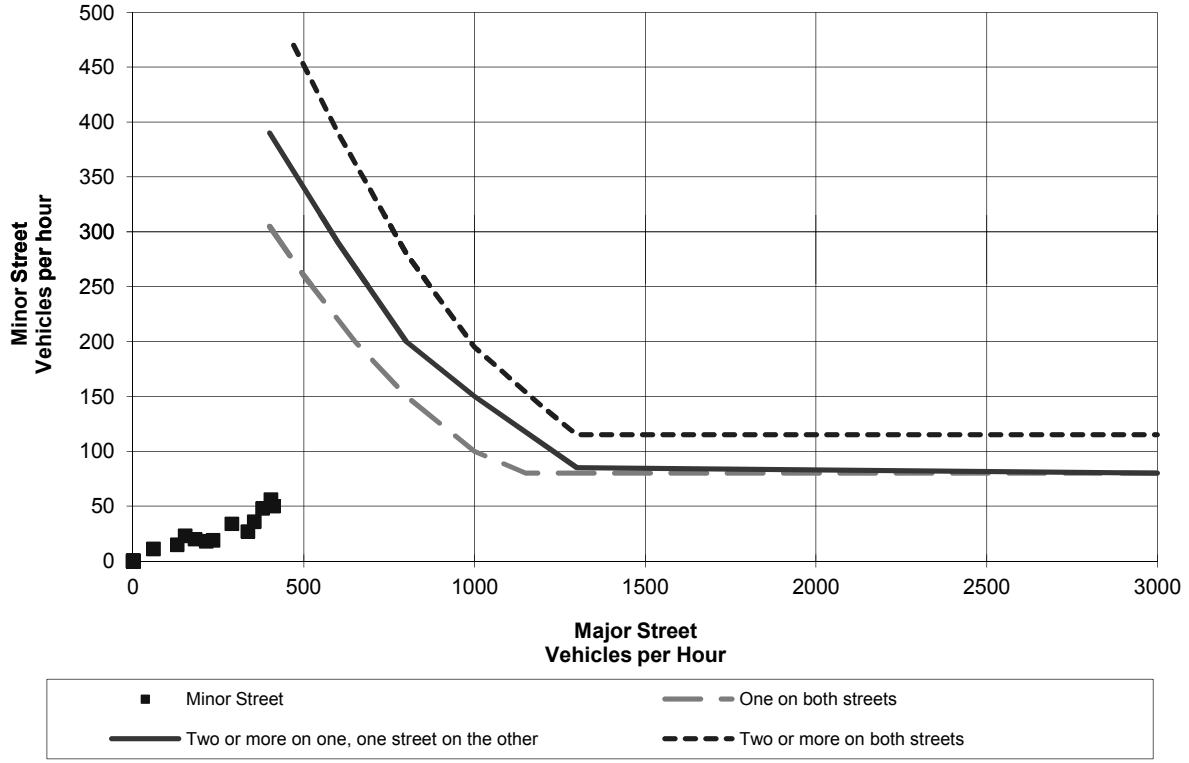
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine St and Lakeshore Blvd
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 56 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine St and Lakeshore Blvd
City: Marquette

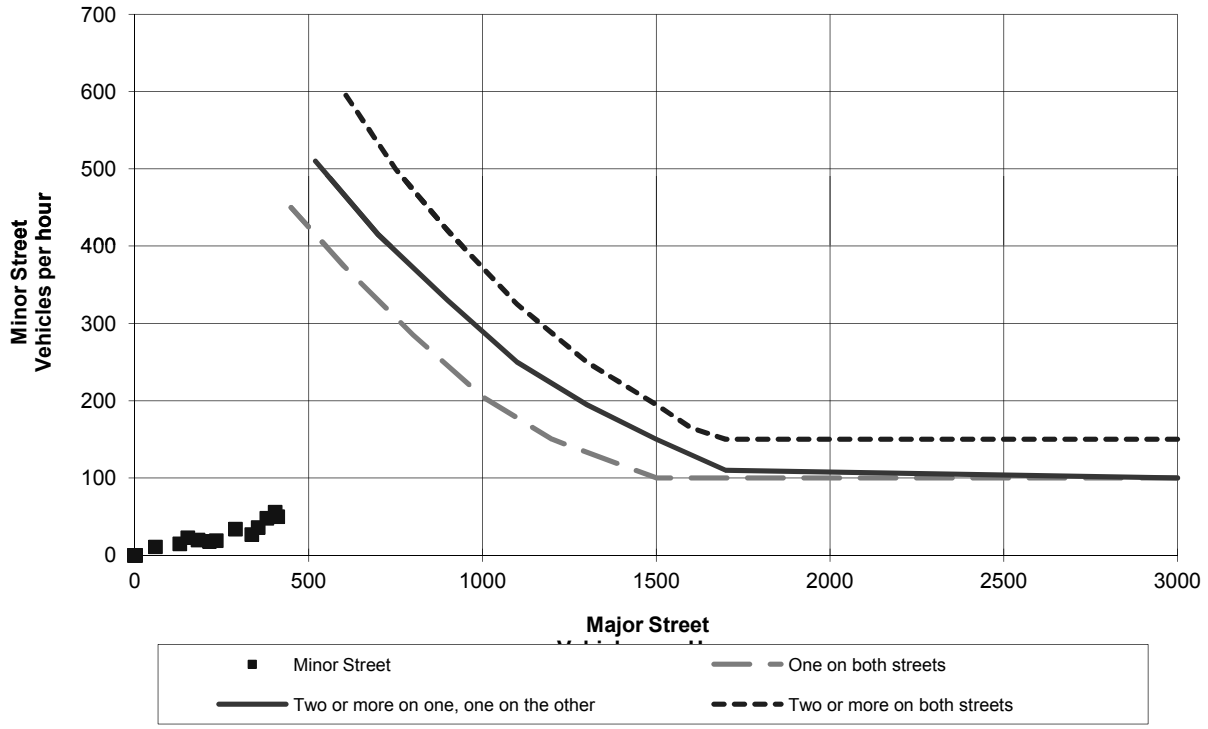
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine St and Lakeshore Blvd
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine St and Lakeshore Blvd
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine St and Lakeshore Blvd
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine St and Lakeshore Blvd
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine St and Lakeshore Blvd
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 14 Pine Street and Fair Avenue

Major Street: Fair Avenue Minor Street: Pine Street

Intersection: Pine Street and Fair Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major WB	Major EB	Minor SB	Minor NB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	20	25	4	21	45	21	70
07:00 - 08:00	45	40	18	40	85	40	143
08:00 - 09:00	68	80	17	33	148	33	198
09:00 - 10:00	52	87	18	46	139	46	203
10:00 - 11:00	83	98	32	36	181	36	249
11:00 - 12:00	77	101	36	31	178	36	245
12:00 - 13:00	79	152	42	37	231	42	310
13:00 - 14:00	100	138	36	44	238	44	318
14:00 - 15:00	85	126	53	45	211	53	309
15:00 - 16:00	93	131	58	57	224	58	339
16:00 - 17:00	91	199	77	60	290	77	427
17:00 - 18:00	121	170	78	67	291	78	436
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**914**	**1347**	**469**	**517**	**2261**	**564**	**3247**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

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Intersection: Pine Street and Fair Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	45	21	No
07:00 - 08:00	85	40	No
08:00 - 09:00	148	33	No
09:00 - 10:00	139	46	No
10:00 - 11:00	181	36	No
11:00 - 12:00	178	36	No
12:00 - 13:00	231	42	No
13:00 - 14:00	238	44	No
14:00 - 15:00	211	53	No
15:00 - 16:00	224	58	No
16:00 - 17:00	290	77	No
17:00 - 18:00	291	78	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

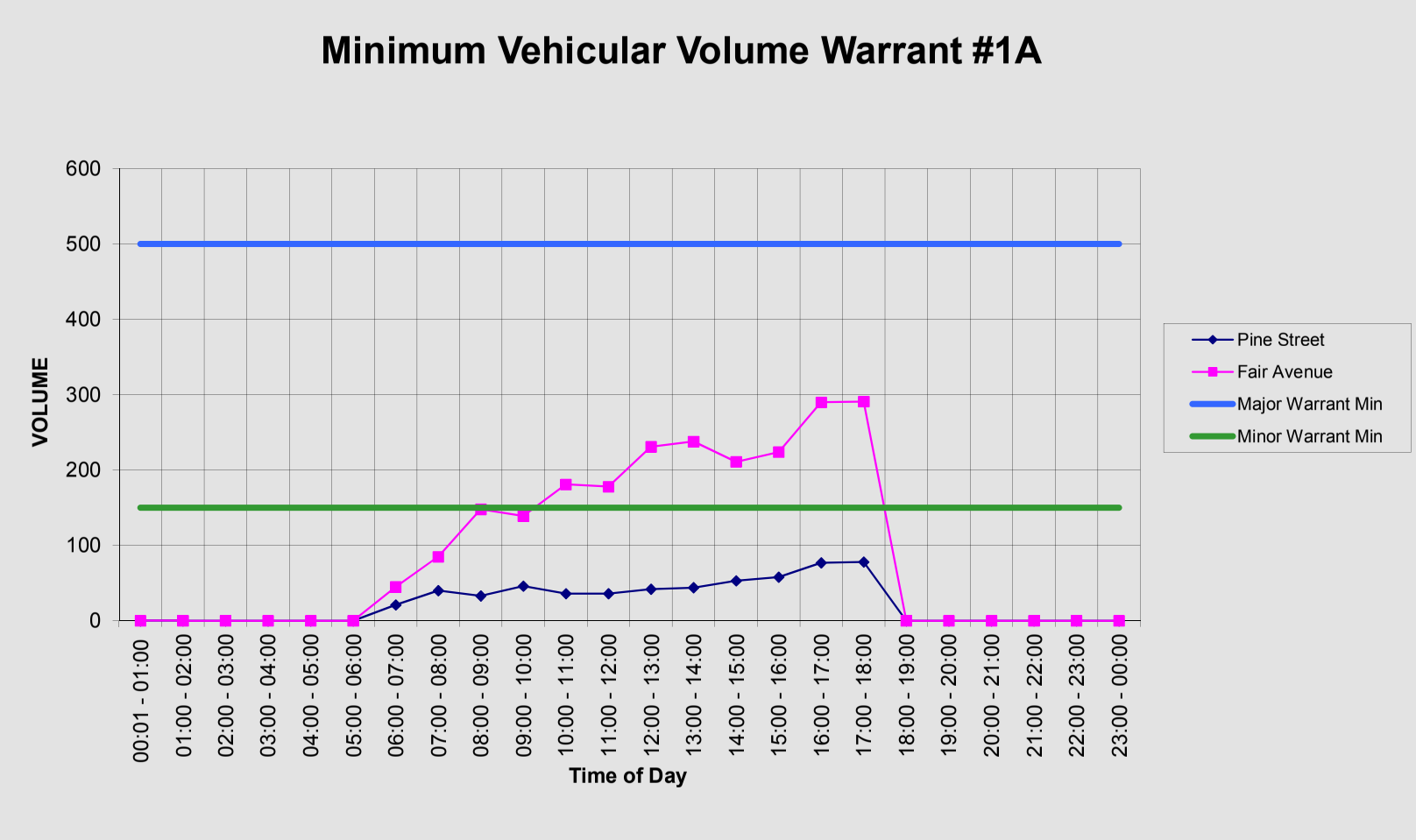
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? No
B. Is the Interruption of Continuous Traffic Met? No
Combination of Warrants A and B Criteria Met? No
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Pine Street and Fair Avenue
Spot Number: 14 Pine Street and Fair Avenue

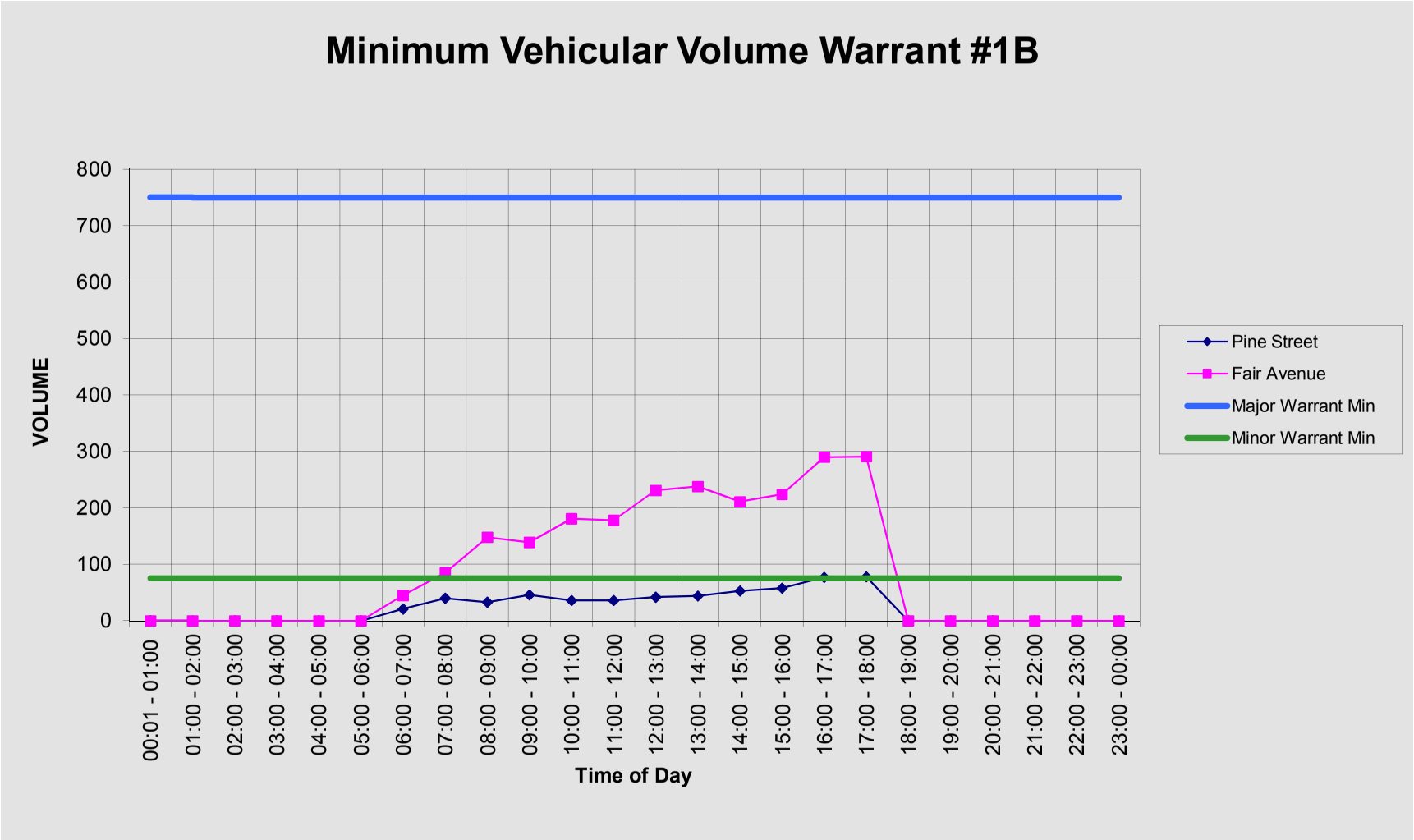
Major Street: Fair Avenue
Minor Street: Pine Street
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Pine Street and Fair Avenue
Spot Number: 14 Pine Street and Fair Avenue

Major Street: Fair Avenue
Minor Street: Pine Street
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine Street and Fair Avenue
City: Marquette

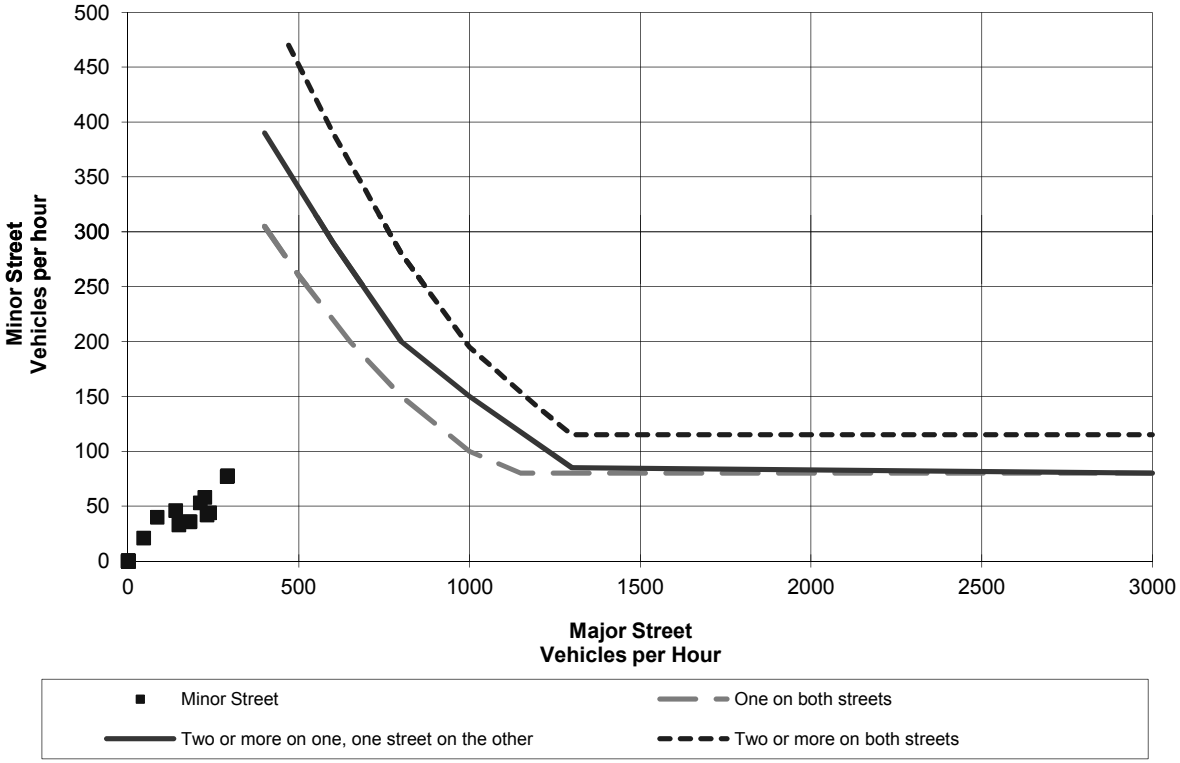
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine Street and Fair Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.2

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 78 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine Street and Fair Avenue
City: Marquette

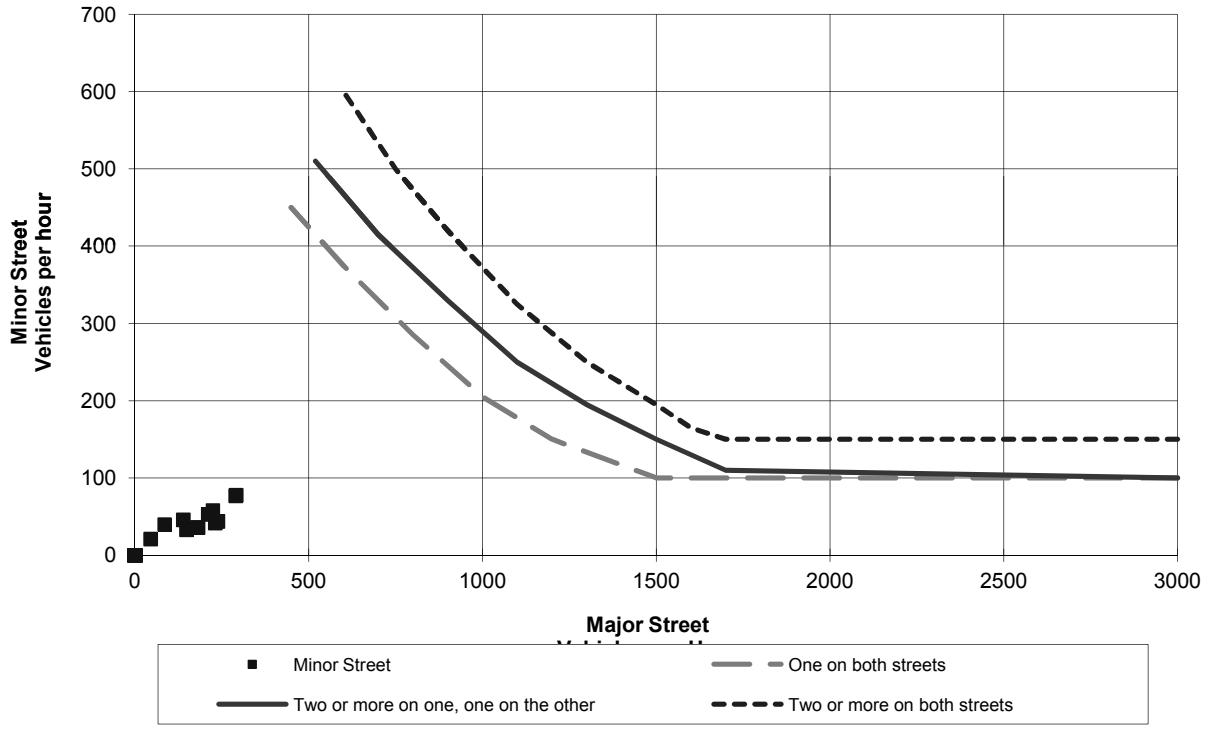
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine Street and Fair Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

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Intersection: Pine Street and Fair Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

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Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine Street and Fair Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

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Intersection: Pine Street and Fair Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

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Worksheet for Signal Warrants (Section 4C)
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Intersection: Pine Street and Fair Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 15 Lakeshore Blvd and Fair Avenue

Major Street: Lakeshore Blvd Minor Street: Fair Avenue

Intersection: Lakeshore Blvd and Fair Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/1/2013

	Major NWB	Major SEB	Minor EB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	54	10	12	0	64	12	76
07:00 - 08:00	98	34	23	0	132	23	155
08:00 - 09:00	132	60	28	0	192	28	220
09:00 - 10:00	108	89	37	0	197	37	234
10:00 - 11:00	118	117	55	0	235	55	290
11:00 - 12:00	132	109	55	0	241	55	296
12:00 - 13:00	197	109	92	0	306	92	398
13:00 - 14:00	224	148	80	0	372	80	452
14:00 - 15:00	188	149	62	0	337	62	399
15:00 - 16:00	193	187	66	0	380	66	446
16:00 - 17:00	189	210	90	0	399	90	489
17:00 - 18:00	193	227	73	0	420	73	493
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1826**	**1449**	**673**	**0**	**3275**	**673**	**3948**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	64	12	No
07:00 - 08:00	132	23	No
08:00 - 09:00	192	28	No
09:00 - 10:00	197	37	No
10:00 - 11:00	235	55	No
11:00 - 12:00	241	55	No
12:00 - 13:00	306	92	No
13:00 - 14:00	372	80	No
14:00 - 15:00	337	62	No
15:00 - 16:00	380	66	No
16:00 - 17:00	399	90	No
17:00 - 18:00	420	73	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

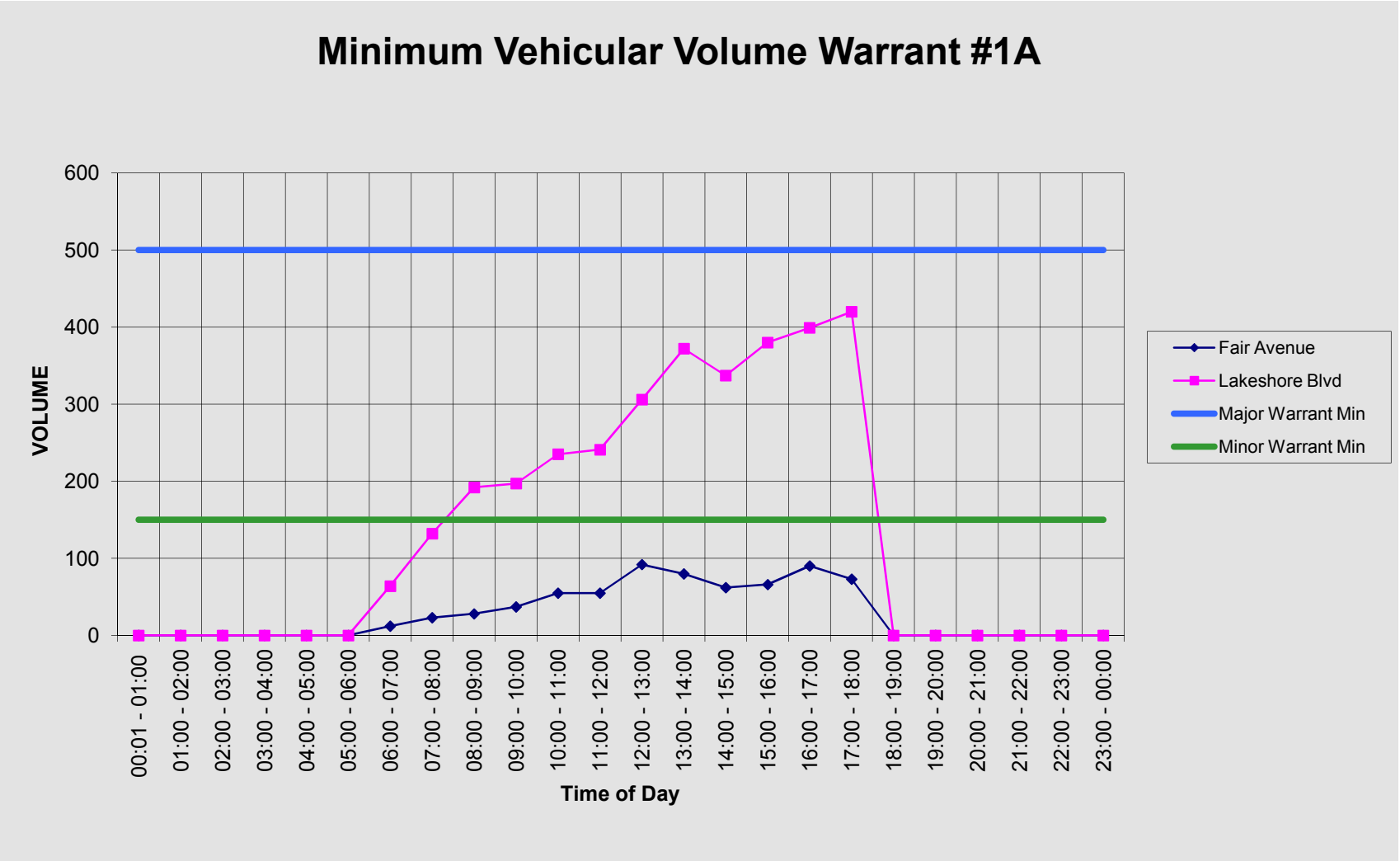
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lakeshore Blvd and Fair Avenue
Spot Number: 15 Lakeshore Blvd and Fair Avenue

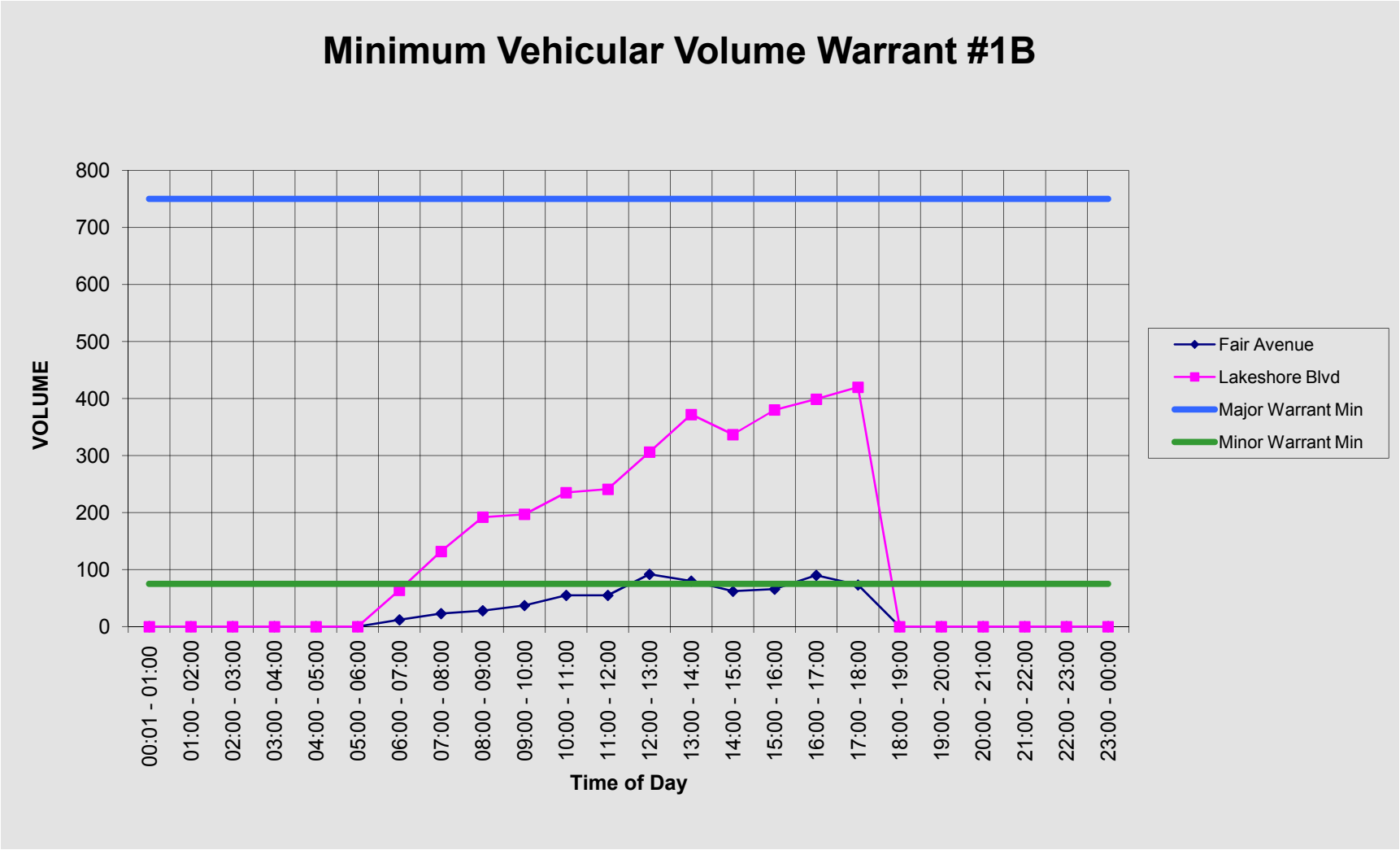
Major Street: Lakeshore Blvd
Minor Street: Fair Avenue
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lakeshore Blvd and Fair Avenue
Spot Number: 15 Lakeshore Blvd and Fair Avenue

Major Street: Lakeshore Blvd
Minor Street: Fair Avenue
Date of Survey: 10/01/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette

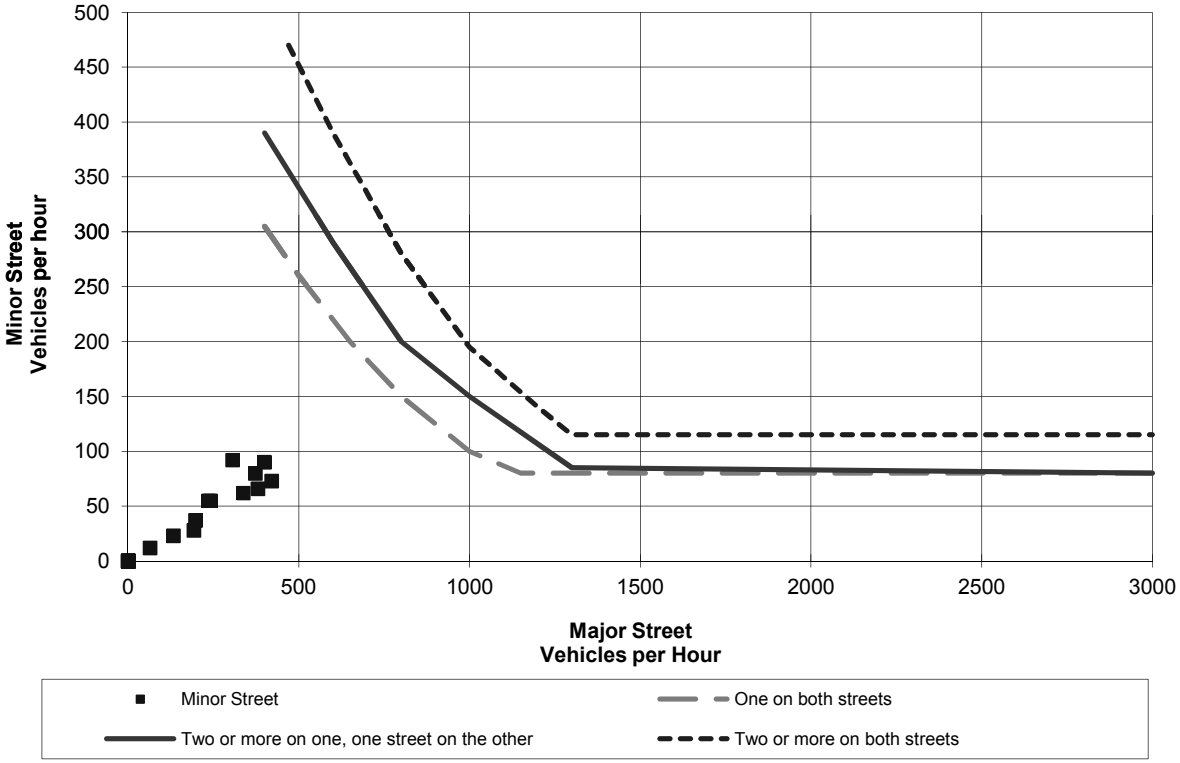
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 92 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 12:00 - 13:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette

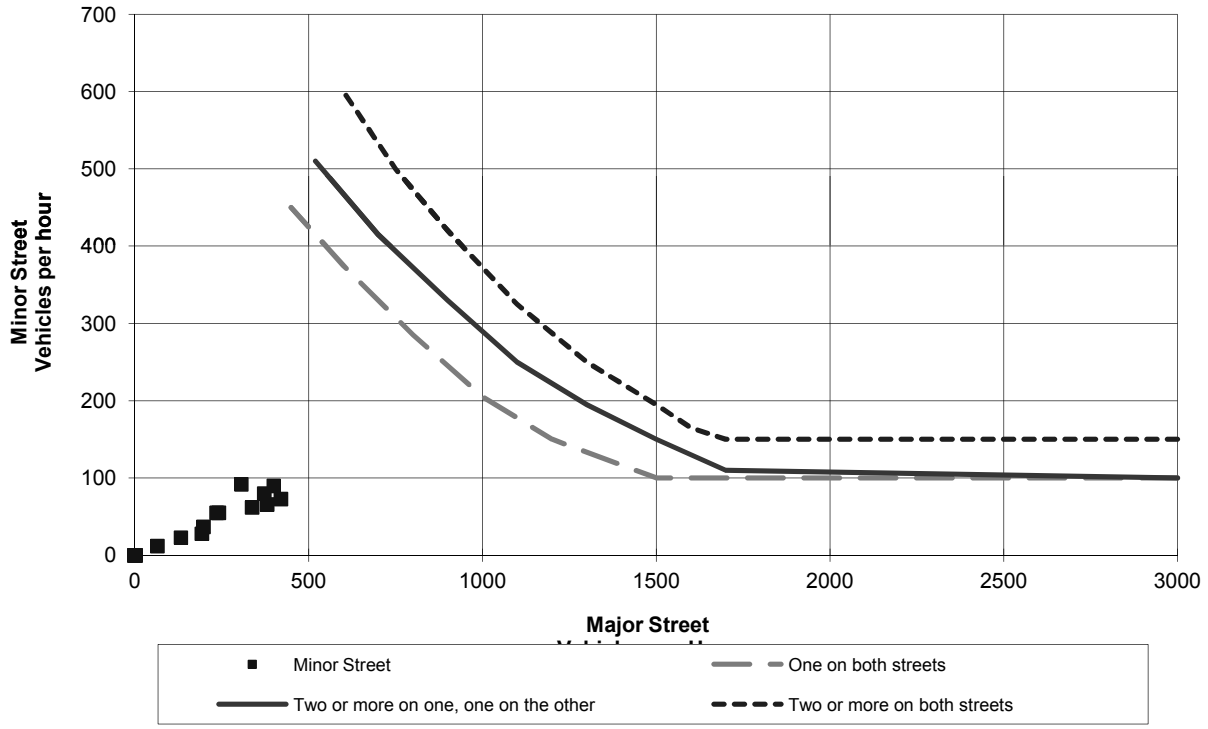
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Fair Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Volumes Discounted for Right Turn Volumes (Left Turns at Crossovers)
Prepared by MDOT for the 2011 Edition of the MMUTCD

Spot Number:	16			
Major Street:	Presque Isle		Minor Street:	Fair
Intersection:	Presque Isle at Fair			
City/Twp:	Marquette			
Date Performed:	3/18/2014 w/RT Red	Performed By:	KMM	
Date Volumes Collected:	10/1/2013			

Percent Discount	**0%**	**0%**	**0%**	**50%**			
	Major NB	**Major SB**	**Minor EB**	**Minor WB**	**Total Major**	**Highest Minor**	**Total**
Turn Percentage	**31%**	**0%**		**74%**			
00:01 - 01:00							
01:00 - 02:00							
02:00 - 03:00							
03:00 - 04:00							
04:00 - 05:00							
05:00 - 06:00							
06:00 - 07:00	85	106		51	191	51	242
07:00 - 08:00	139	179		96	318	96	414
08:00 - 09:00	166	216		108	382	108	490
09:00 - 10:00	190	207		134	397	134	531
10:00 - 11:00	181	210		119	391	119	510
11:00 - 12:00	252	373		160	625	160	785
12:00 - 13:00	279	410		179	689	179	868
13:00 - 14:00	283	368		162	651	162	813
14:00 - 15:00	265	407		166	672	166	838
15:00 - 16:00	329	448		165	777	165	942
16:00 - 17:00	281	451		163	732	163	895
17:00 - 18:00	366	488		219	854	219	1073
18:00 - 19:00							
19:00 - 20:00							
20:00 - 21:00							
21:00 - 22:00							
22:00 - 23:00							
23:00 - 00:00							
Total	**2816**	**3863**	**0**	**1719**	**6679**	**1719**	**8398**

Summary of Warrants

Spot Number:	16		
Major Street:	Presque Isle	Minor Street:	Fair
Intersection:	Presque Isle at Fair		
City/Twp:	Marquette		
Date Performed:	3/18/2014 w/RT Red	Performed By:	KMM
Date Volumes Collected:	10/1/2013		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	NO
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**NO**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 17 Thrid Street and Fair Avenue

Major Street: Fair Avenue Minor Street: Third Street

Intersection: Third Street and Fair Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major WB	Major EB	Minor SB	Minor NB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	64	70	6	41	134	41	181
07:00 - 08:00	114	122	61	68	236	68	365
08:00 - 09:00	120	153	50	80	273	80	403
09:00 - 10:00	130	195	95	131	325	131	551
10:00 - 11:00	139	165	62	106	304	106	472
11:00 - 12:00	178	279	101	152	457	152	710
12:00 - 13:00	183	287	95	193	470	193	758
13:00 - 14:00	163	281	88	161	444	161	693
14:00 - 15:00	186	303	80	179	489	179	748
15:00 - 16:00	185	351	73	155	536	155	764
16:00 - 17:00	200	343	92	169	543	169	804
17:00 - 18:00	216	395	152	226	611	226	989
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1878**	**2944**	**955**	**1661**	**4822**	**1661**	**7438**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	134	41	No
07:00 - 08:00	236	68	No
08:00 - 09:00	273	80	No
09:00 - 10:00	325	131	No
10:00 - 11:00	304	106	No
11:00 - 12:00	457	152	No
12:00 - 13:00	470	193	No
13:00 - 14:00	444	161	No
14:00 - 15:00	489	179	No
15:00 - 16:00	536	155	Yes
16:00 - 17:00	543	169	Yes
17:00 - 18:00	611	226	Yes
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

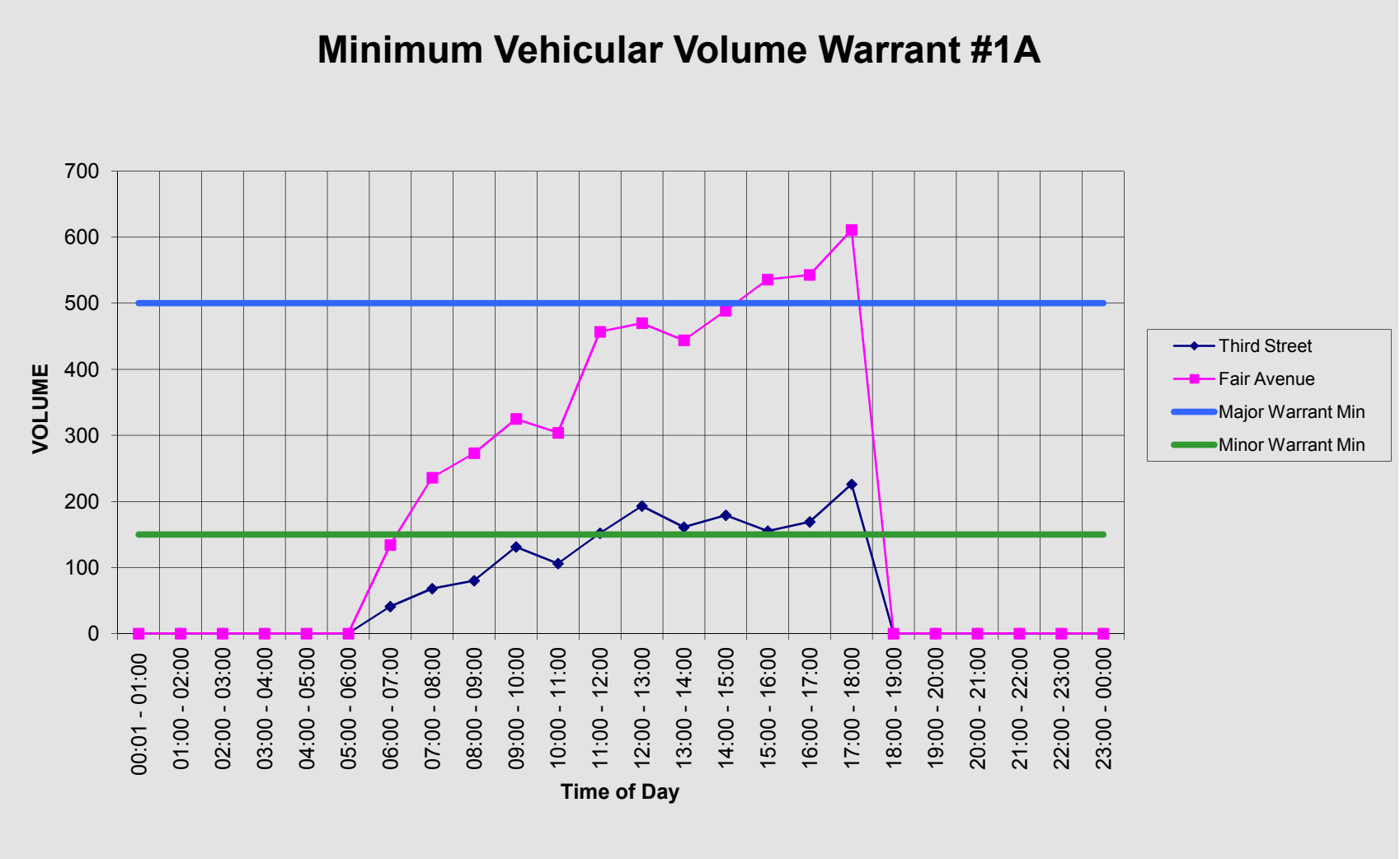
Total Hours Met: 3

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Third Street and Fair Avenue
Spot Number: 17 Thrid Street and Fair Avenue

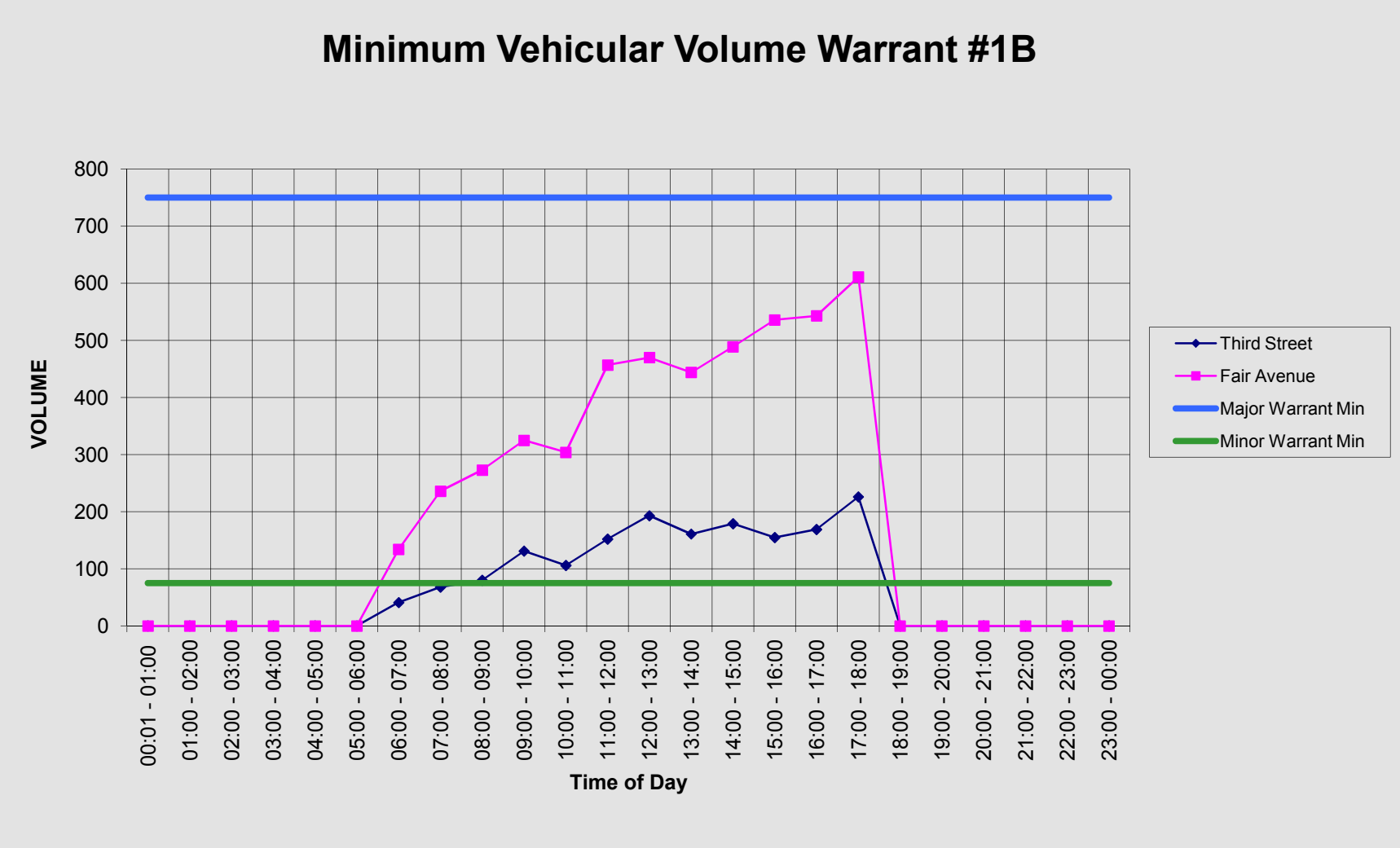
Major Street: Fair Avenue
Minor Street: Third Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 3

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Third Street and Fair Avenue
Spot Number: 17 Thrid Street and Fair Avenue

Major Street: Fair Avenue
Minor Street: Third Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette

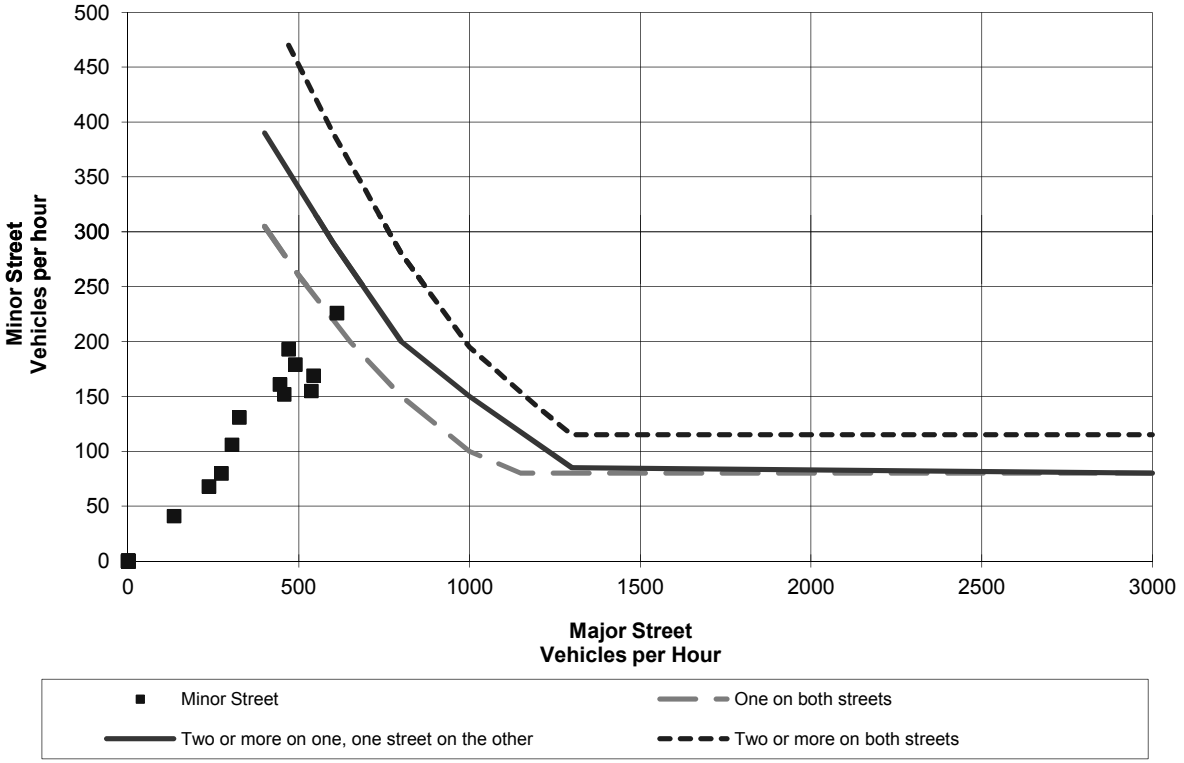
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.4

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 226 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette

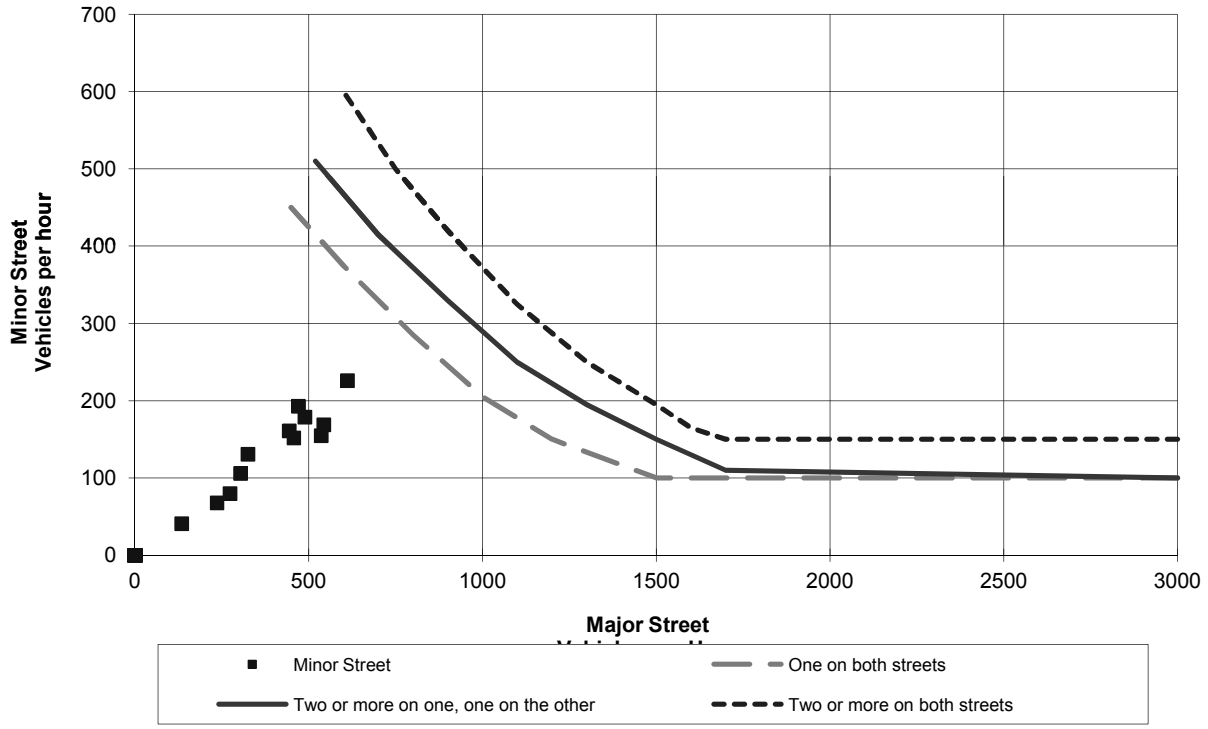
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fair Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 18 Front Street and Fair Avenue

Major Street: Fair Avenue Minor Street: Front Street

Intersection: Front Street and Fair Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major WB	Major EB	Minor NB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	29	19	19	0	48	19	67
07:00 - 08:00	64	49	53	0	113	53	166
08:00 - 09:00	78	44	49	0	122	49	171
09:00 - 10:00	87	75	75	0	162	75	237
10:00 - 11:00	92	78	74	0	170	74	244
11:00 - 12:00	133	111	67	0	244	67	311
12:00 - 13:00	129	132	77	0	261	77	338
13:00 - 14:00	130	130	68	0	260	68	328
14:00 - 15:00	150	155	68	0	305	68	373
15:00 - 16:00	147	145	66	0	292	66	358
16:00 - 17:00	154	190	82	0	344	82	426
17:00 - 18:00	213	293	143	0	506	143	649
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1406**	**1421**	**841**	**0**	**2827**	**841**	**3668**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	48	19	No
07:00 - 08:00	113	53	No
08:00 - 09:00	122	49	No
09:00 - 10:00	162	75	No
10:00 - 11:00	170	74	No
11:00 - 12:00	244	67	No
12:00 - 13:00	261	77	No
13:00 - 14:00	260	68	No
14:00 - 15:00	305	68	No
15:00 - 16:00	292	66	No
16:00 - 17:00	344	82	No
17:00 - 18:00	506	143	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

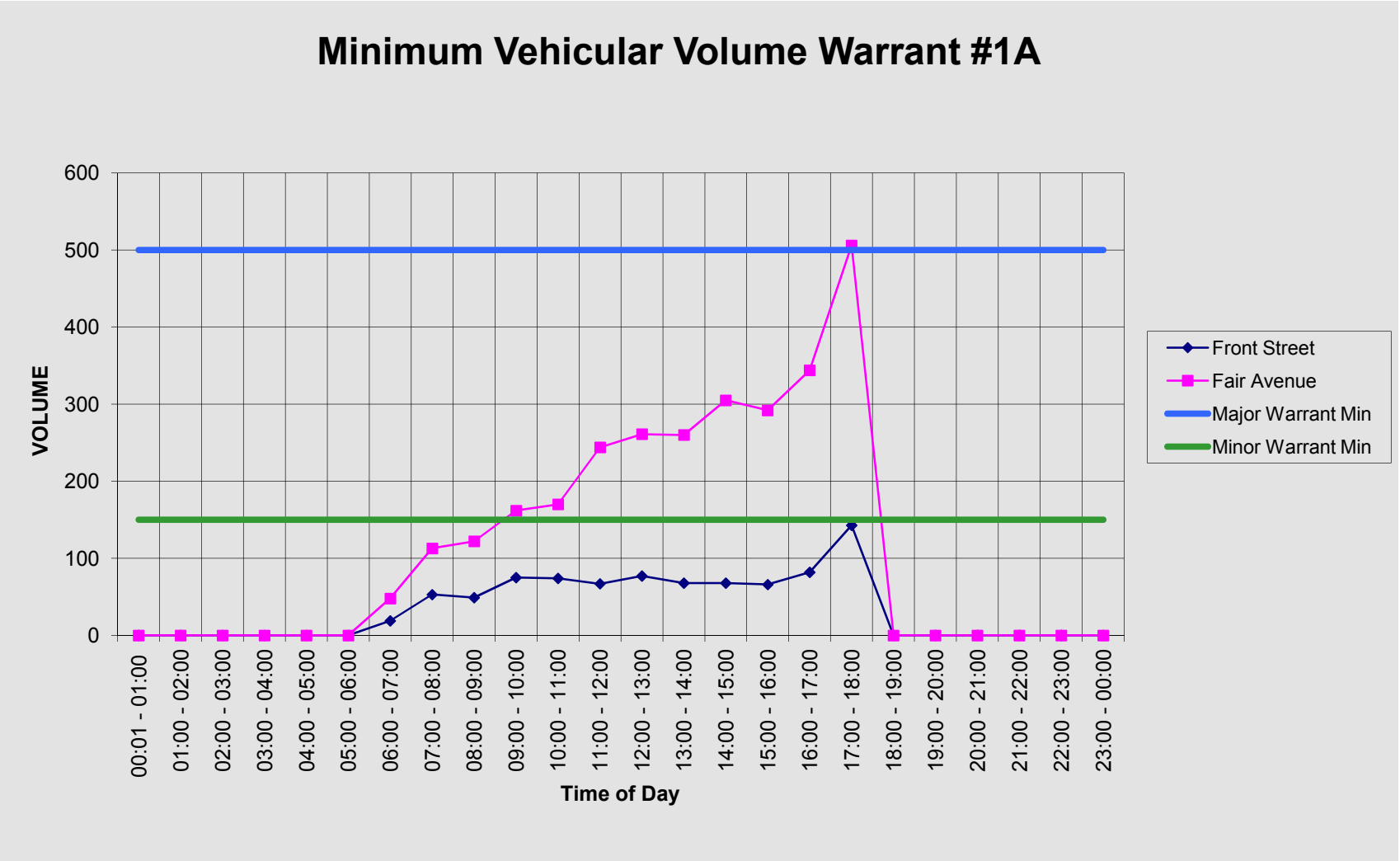
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Front Street and Fair Avenue
Spot Number: 18 Front Street and Fair Avenue

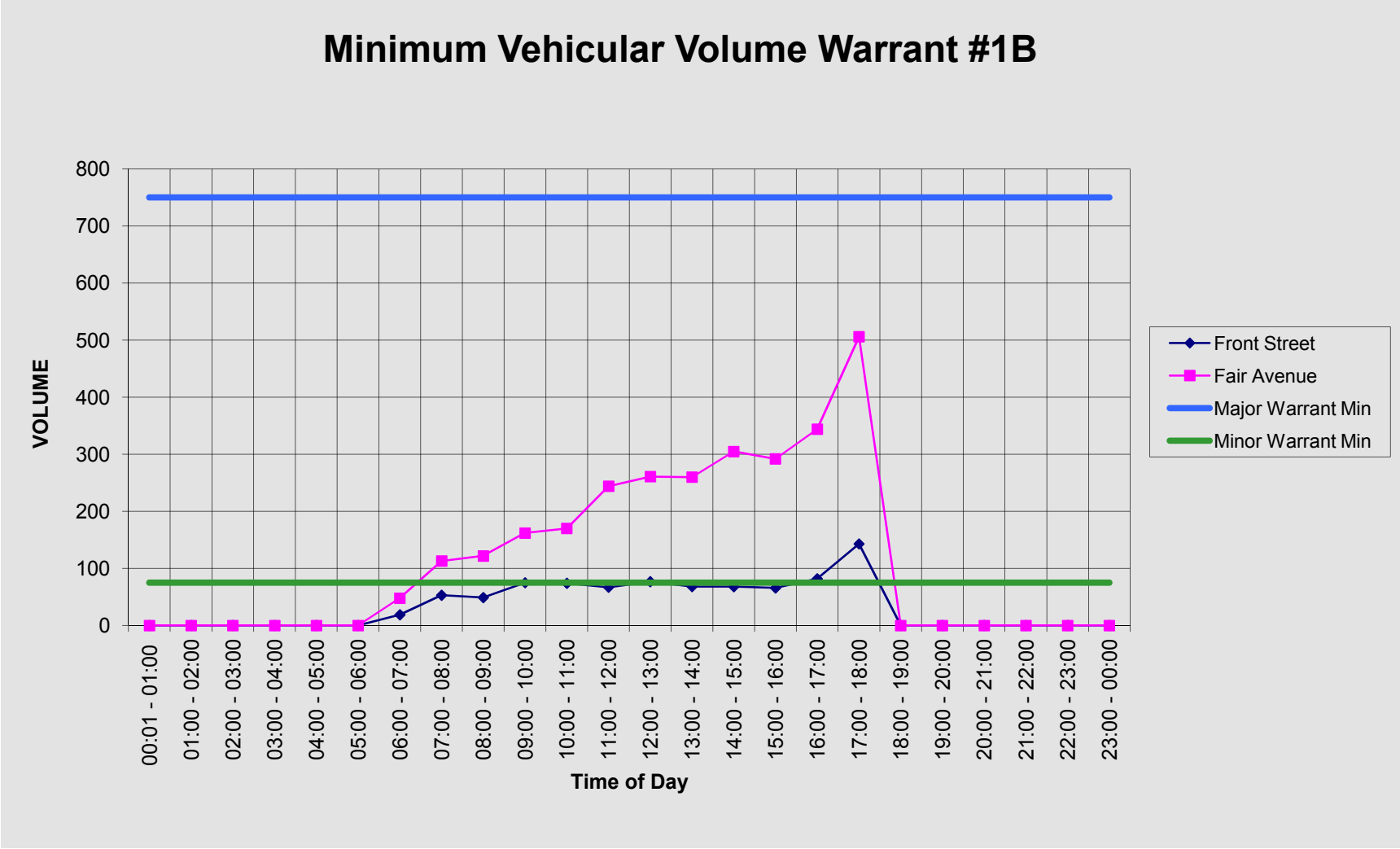
Major Street: Fair Avenue
Minor Street: Front Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Front Street and Fair Avenue
Spot Number: 18 Front Street and Fair Avenue

Major Street: Fair Avenue
Minor Street: Front Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette

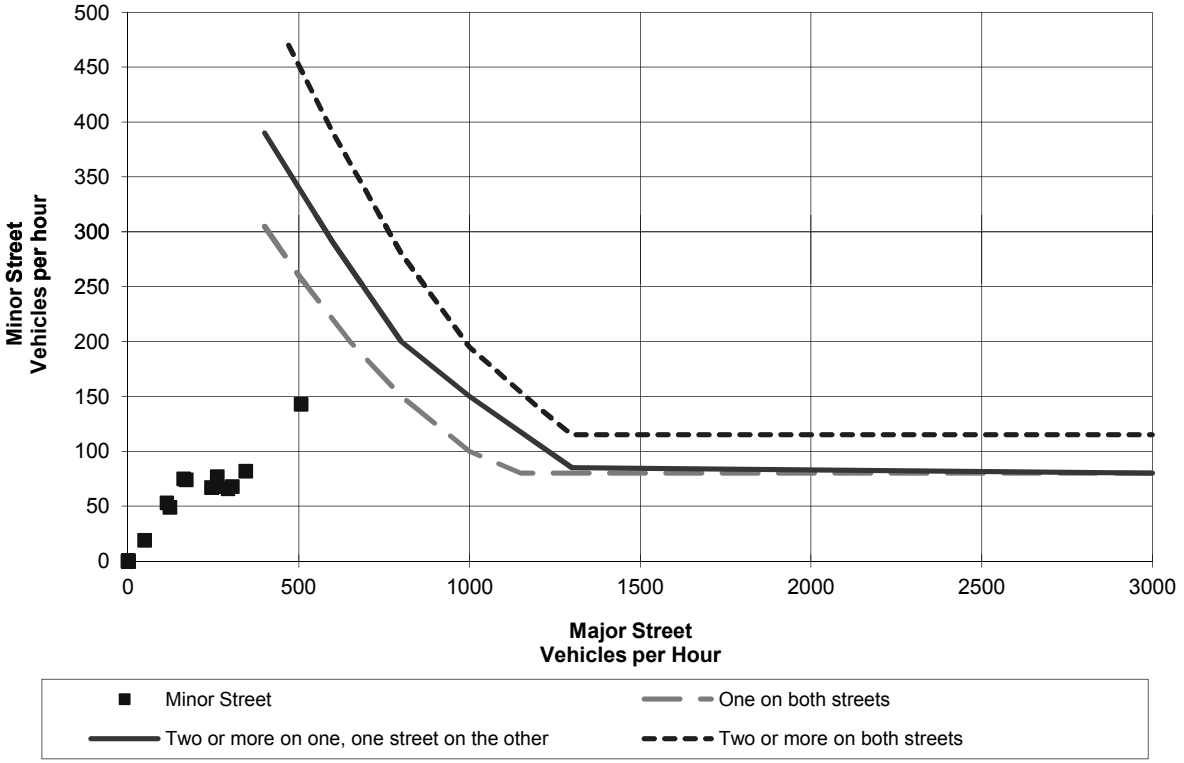
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 143 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette

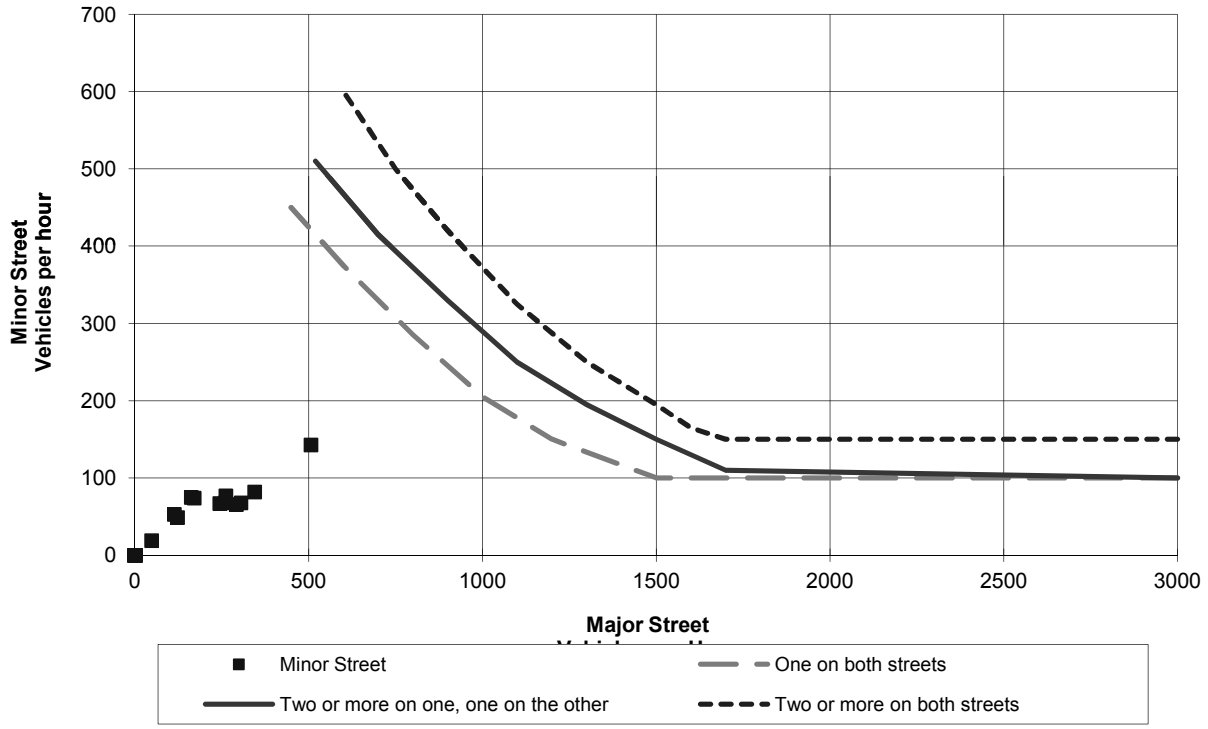
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fair Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 21 Third Street and College Avenue

Major Street: Third Street Minor Street: College Avenue

Intersection: Third Street and College Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	43	90	23	9	133	23	165
07:00 - 08:00	122	206	64	50	328	64	442
08:00 - 09:00	126	190	45	49	316	49	410
09:00 - 10:00	181	214	41	69	395	69	505
10:00 - 11:00	182	195	37	57	377	57	471
11:00 - 12:00	303	251	28	112	554	112	694
12:00 - 13:00	307	315	39	128	622	128	789
13:00 - 14:00	260	277	40	98	537	98	675
14:00 - 15:00	304	257	36	154	561	154	751
15:00 - 16:00	324	271	38	138	595	138	771
16:00 - 17:00	347	260	42	135	607	135	784
17:00 - 18:00	336	368	43	132	704	132	879
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2835**	**2894**	**476**	**1131**	**5729**	**1159**	**7336**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	133	23	No
07:00 - 08:00	328	64	No
08:00 - 09:00	316	49	No
09:00 - 10:00	395	69	No
10:00 - 11:00	377	57	No
11:00 - 12:00	554	112	No
12:00 - 13:00	622	128	No
13:00 - 14:00	537	98	No
14:00 - 15:00	561	154	Yes
15:00 - 16:00	595	138	No
16:00 - 17:00	607	135	No
17:00 - 18:00	704	132	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

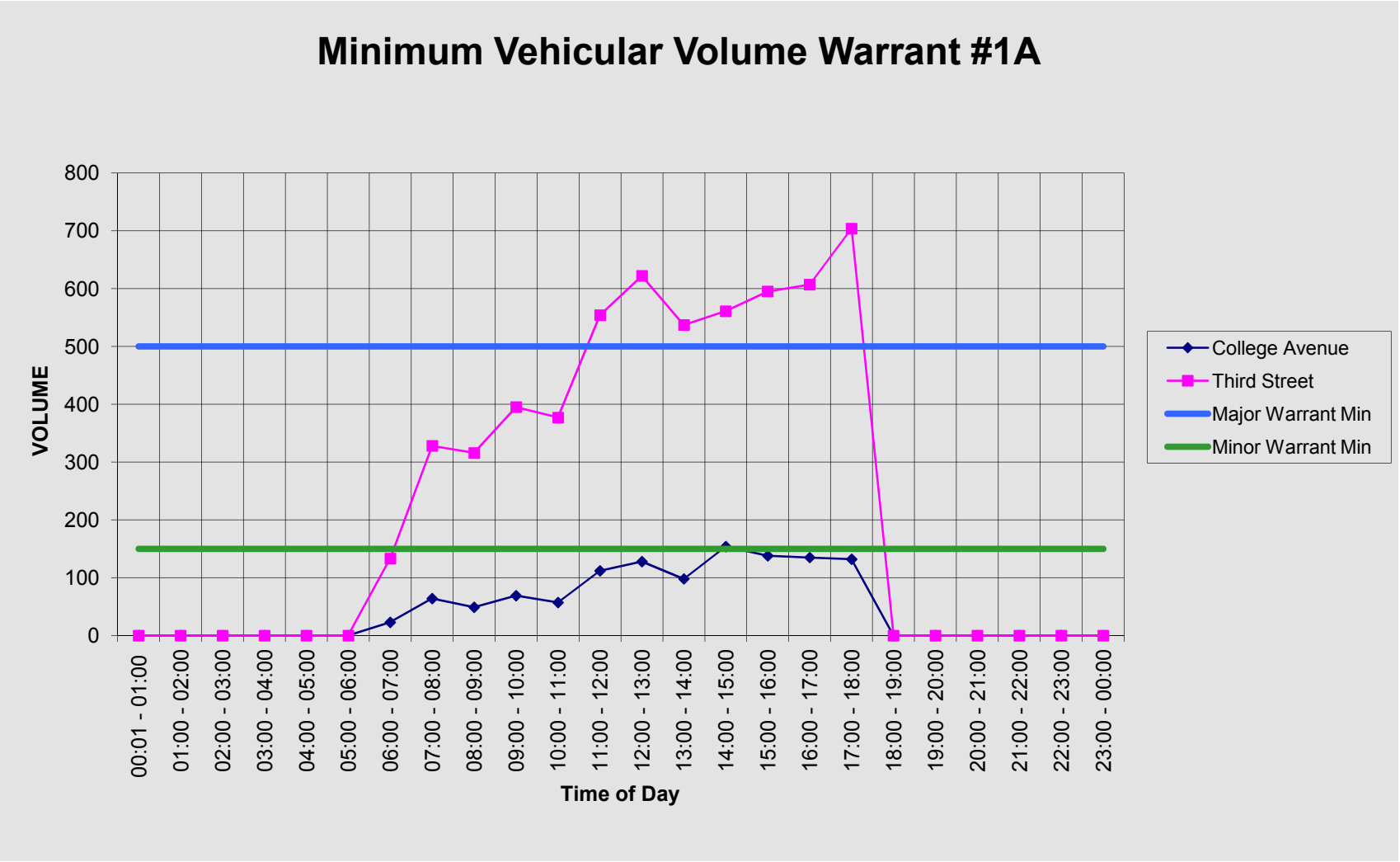
Total Hours Met: 1

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Third Street and College Avenue
Spot Number: 21 Third Street and College Avenue

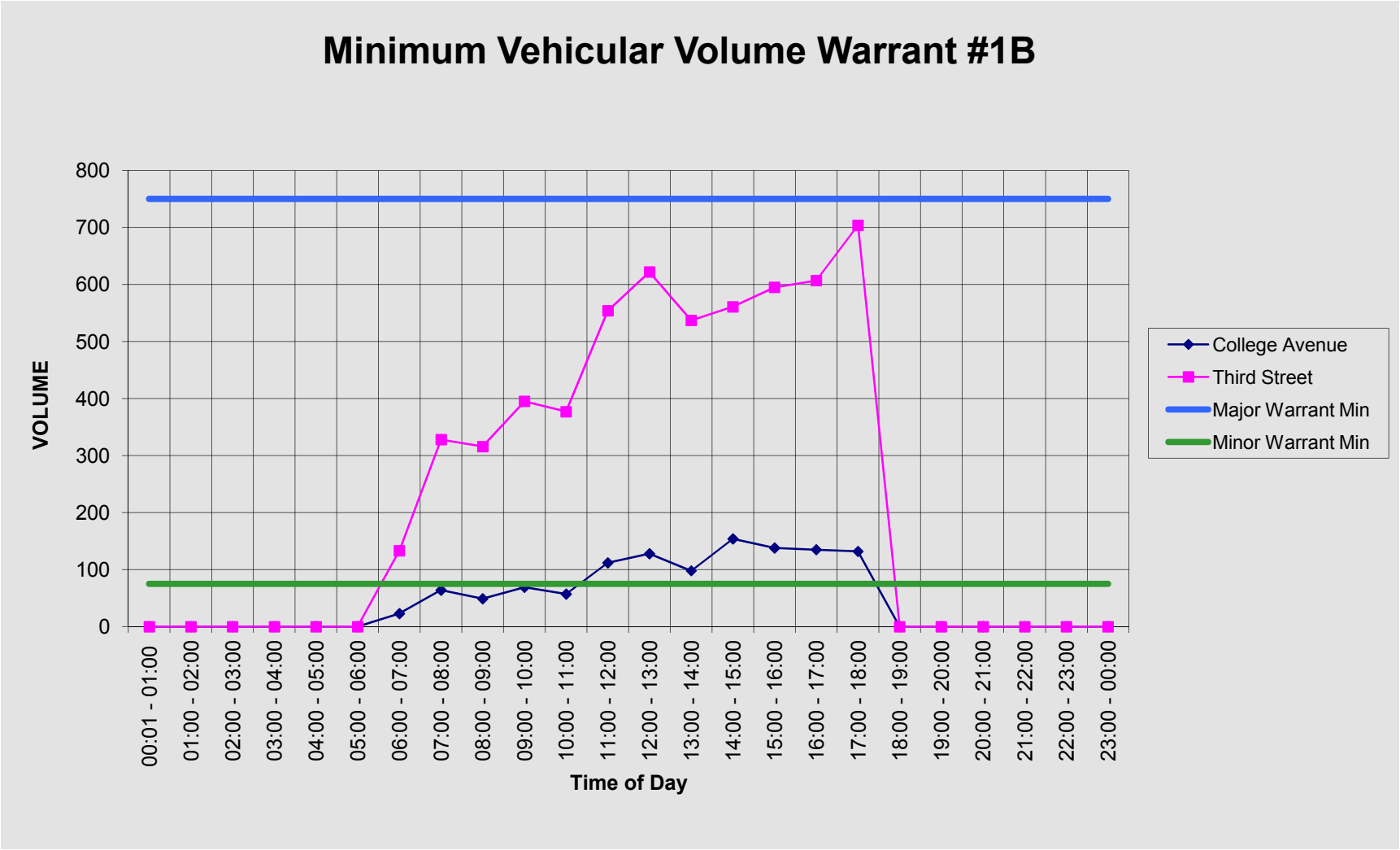
Major Street: Third Street
Minor Street: College Avenue
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 1

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Third Street and College Avenue
Spot Number: 21 Third Street and College Avenue

Major Street: Third Street
Minor Street: College Avenue
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette

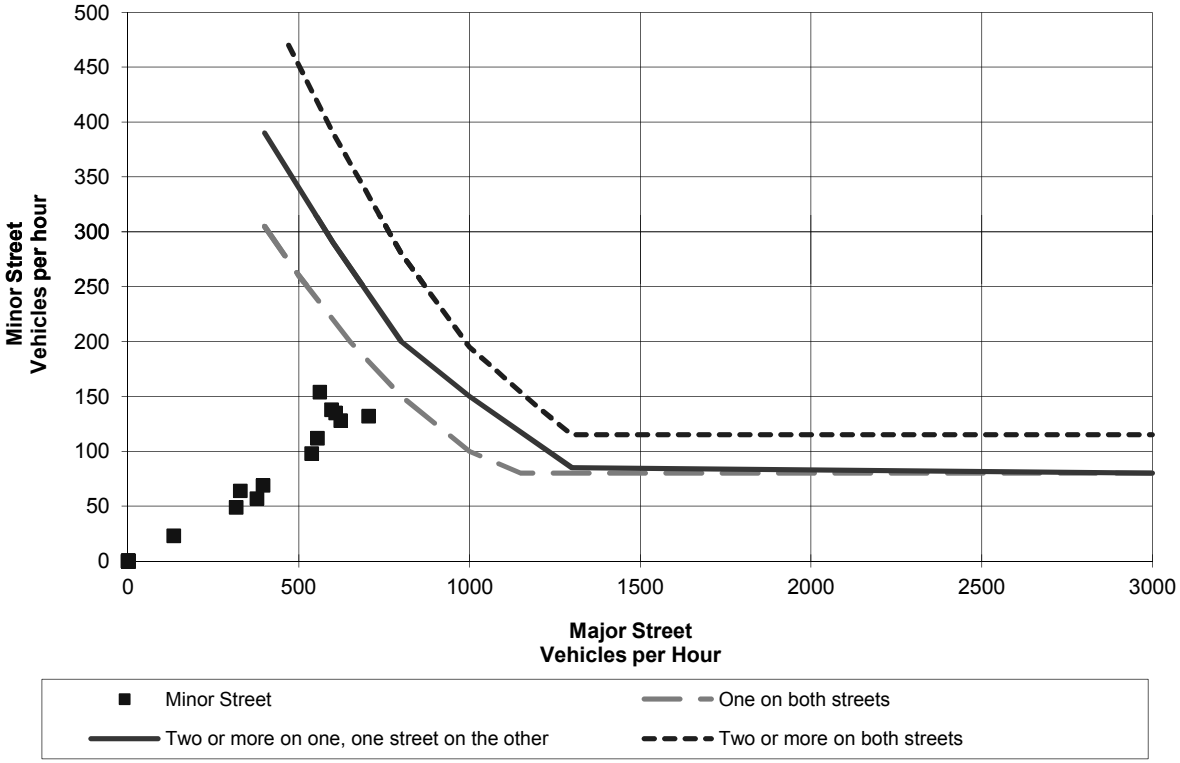
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.2

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 154 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 14:00 - 15:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette

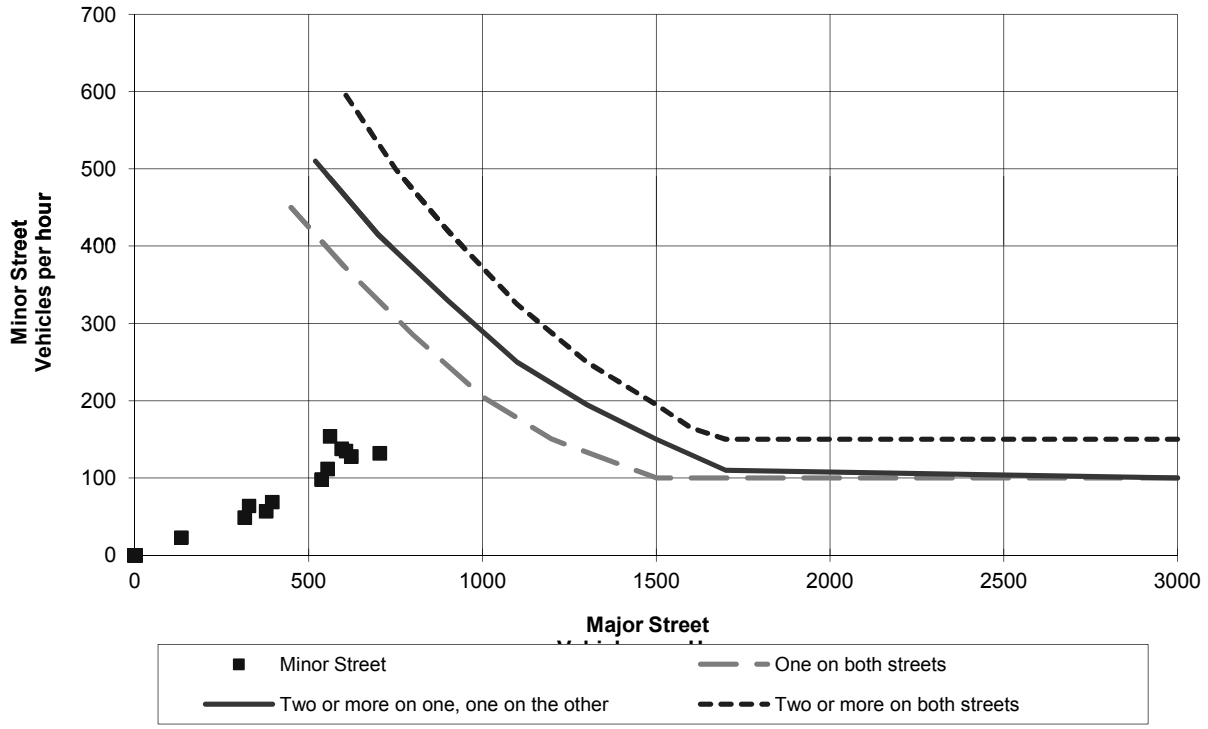
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00		12:00 - 13:00	79
01:00 - 02:00		13:00 - 14:00	48
02:00 - 03:00		14:00 - 15:00	54
03:00 - 04:00		15:00 - 16:00	40
04:00 - 05:00		16:00 - 17:00	54
05:00 - 06:00		17:00 - 18:00	48
06:00 - 07:00	25	18:00 - 19:00	
07:00 - 08:00	19	19:00 - 20:00	
08:00 - 09:00	22	20:00 - 21:00	
09:00 - 10:00	30	21:00 - 22:00	
10:00 - 11:00	33	22:00 - 23:00	
11:00 - 12:00	52	23:00 - 00:00	

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and College Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**
(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 22 Pine Street and Magnetic Street

Major Street: Pine Street Minor Street: Magnetic Street

Intersection: Pine Street and Magnetic Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	7	30	11	6	37	11	54
07:00 - 08:00	24	52	6	2	76	6	84
08:00 - 09:00	15	51	10	9	66	10	85
09:00 - 10:00	20	43	10	5	63	10	78
10:00 - 11:00	21	32	7	5	53	7	65
11:00 - 12:00	40	40	13	5	80	13	98
12:00 - 13:00	39	38	6	7	77	7	90
13:00 - 14:00	44	41	7	7	85	7	99
14:00 - 15:00	40	60	7	9	100	9	116
15:00 - 16:00	54	59	8	12	113	12	133
16:00 - 17:00	69	58	12	14	127	14	153
17:00 - 18:00	77	77	15	19	154	19	188
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**450**	**581**	**112**	**100**	**1031**	**125**	**1243**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	37	11	No
07:00 - 08:00	76	6	No
08:00 - 09:00	66	10	No
09:00 - 10:00	63	10	No
10:00 - 11:00	53	7	No
11:00 - 12:00	80	13	No
12:00 - 13:00	77	7	No
13:00 - 14:00	85	7	No
14:00 - 15:00	100	9	No
15:00 - 16:00	113	12	No
16:00 - 17:00	127	14	No
17:00 - 18:00	154	19	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

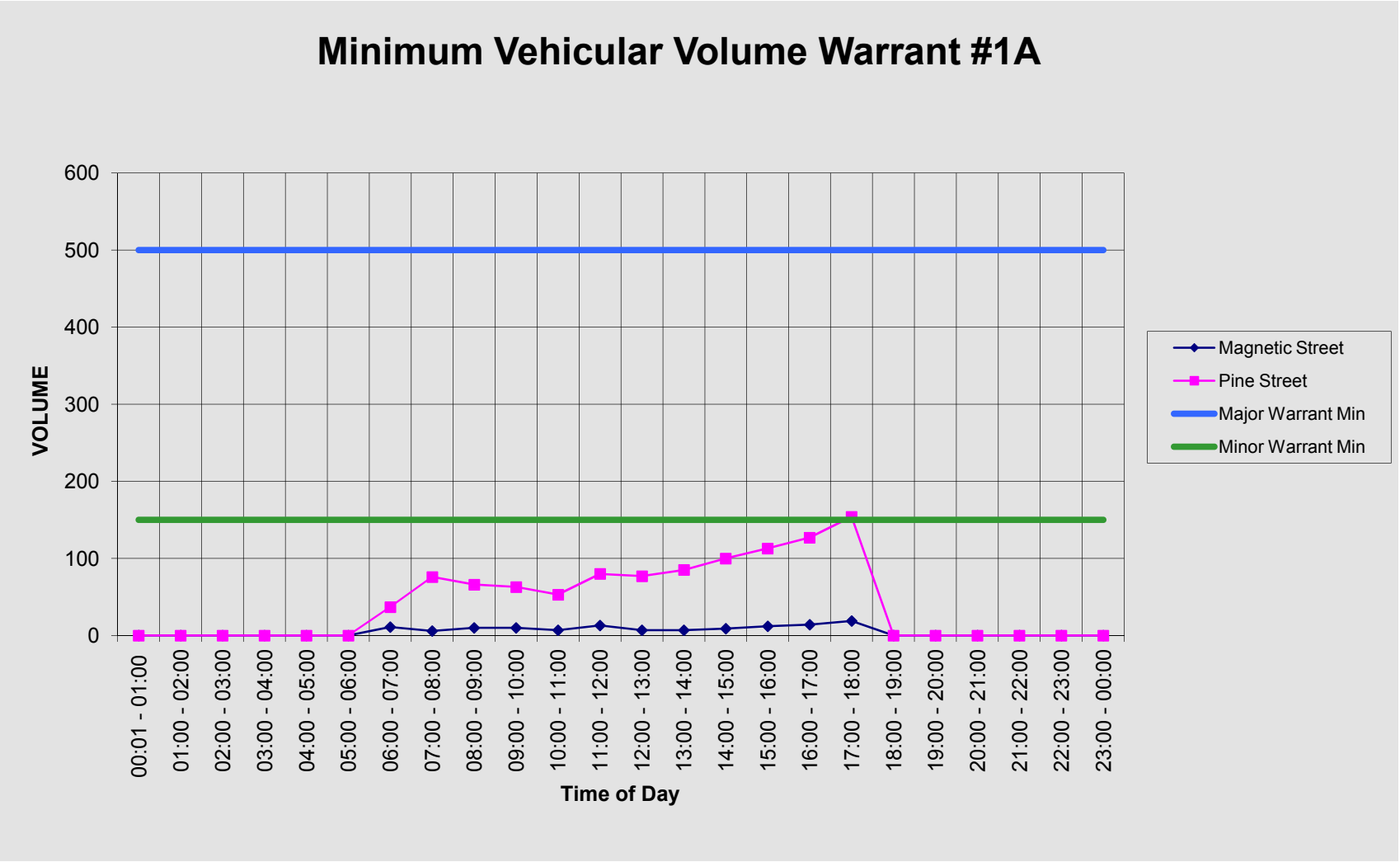
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Pine Street and Magnetic Street
Spot Number: 22 Pine Street and Magnetic Street

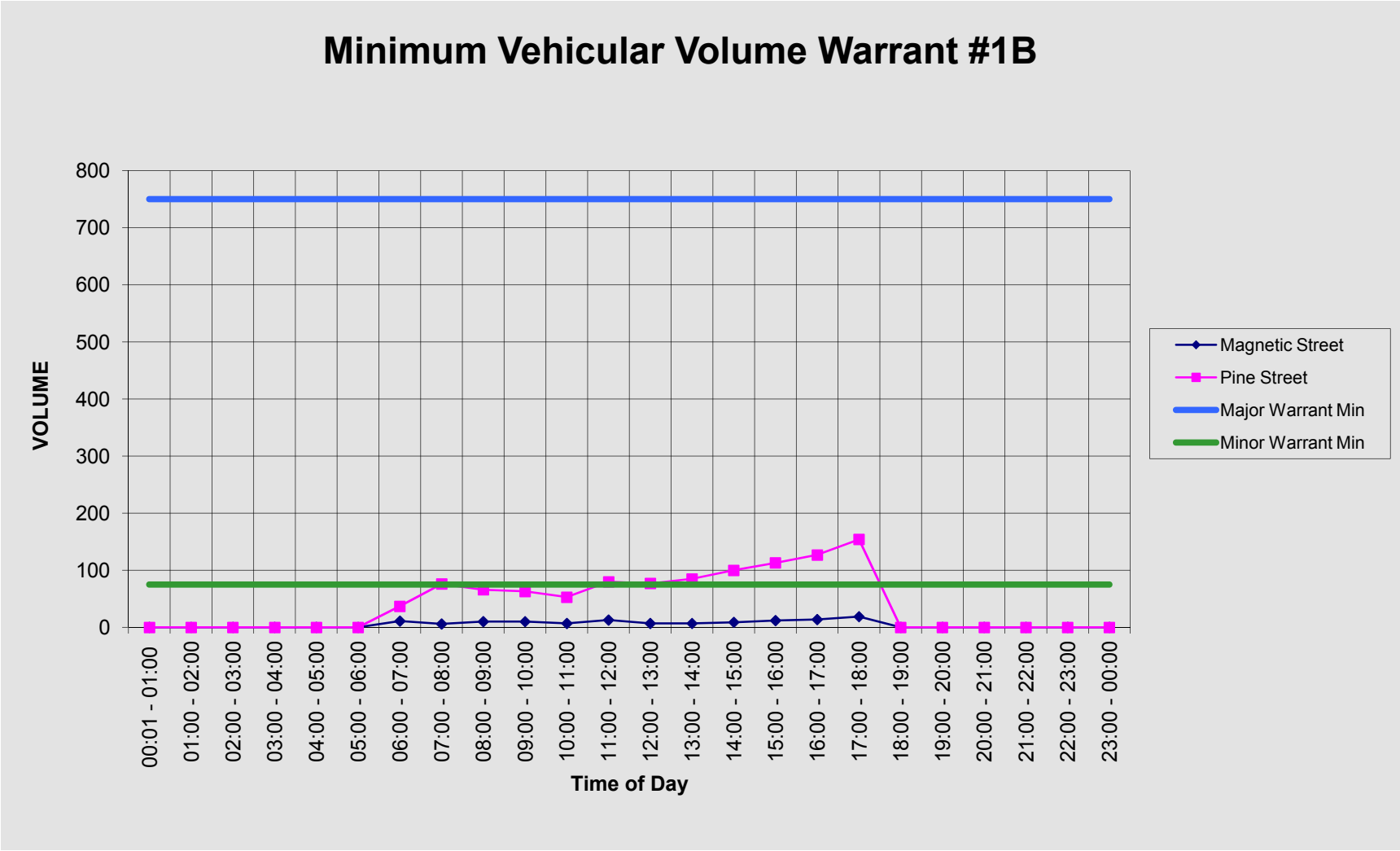
Major Street: Pine Street
Minor Street: Magnetic Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Pine Street and Magnetic Street
Spot Number: 22 Pine Street and Magnetic Street

Major Street: Pine Street
Minor Street: Magnetic Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette

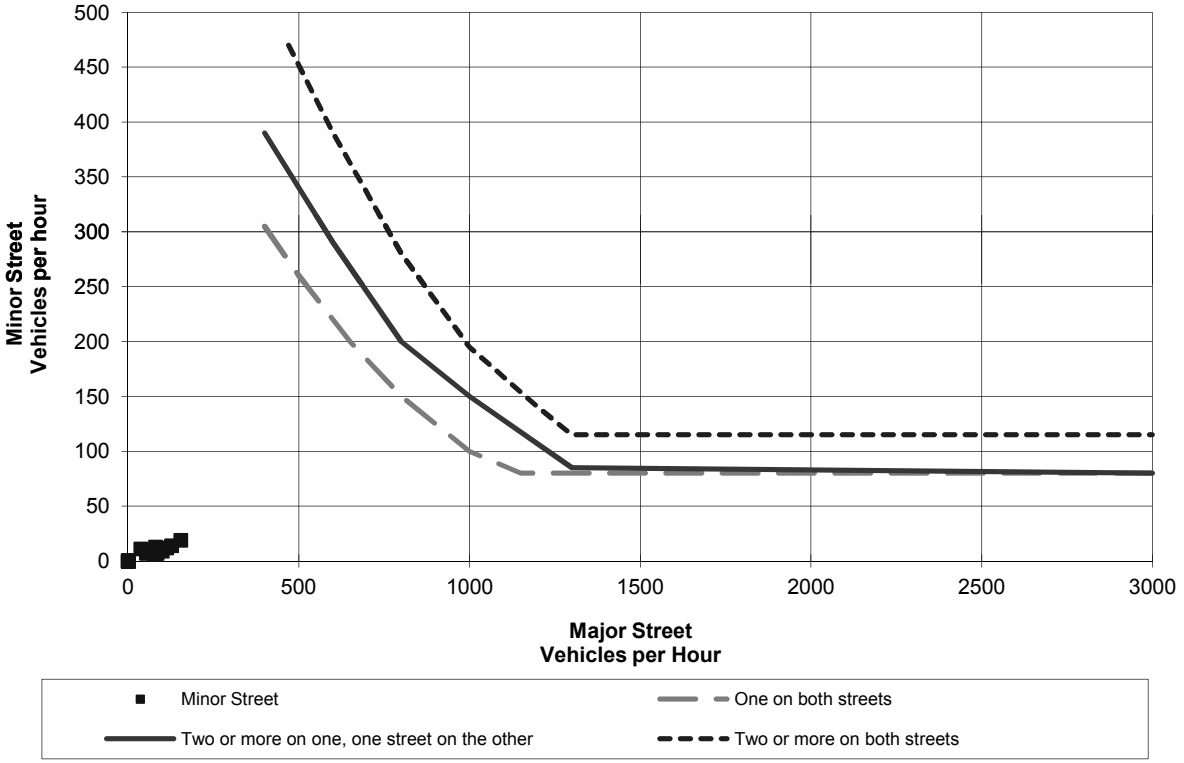
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 19 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette

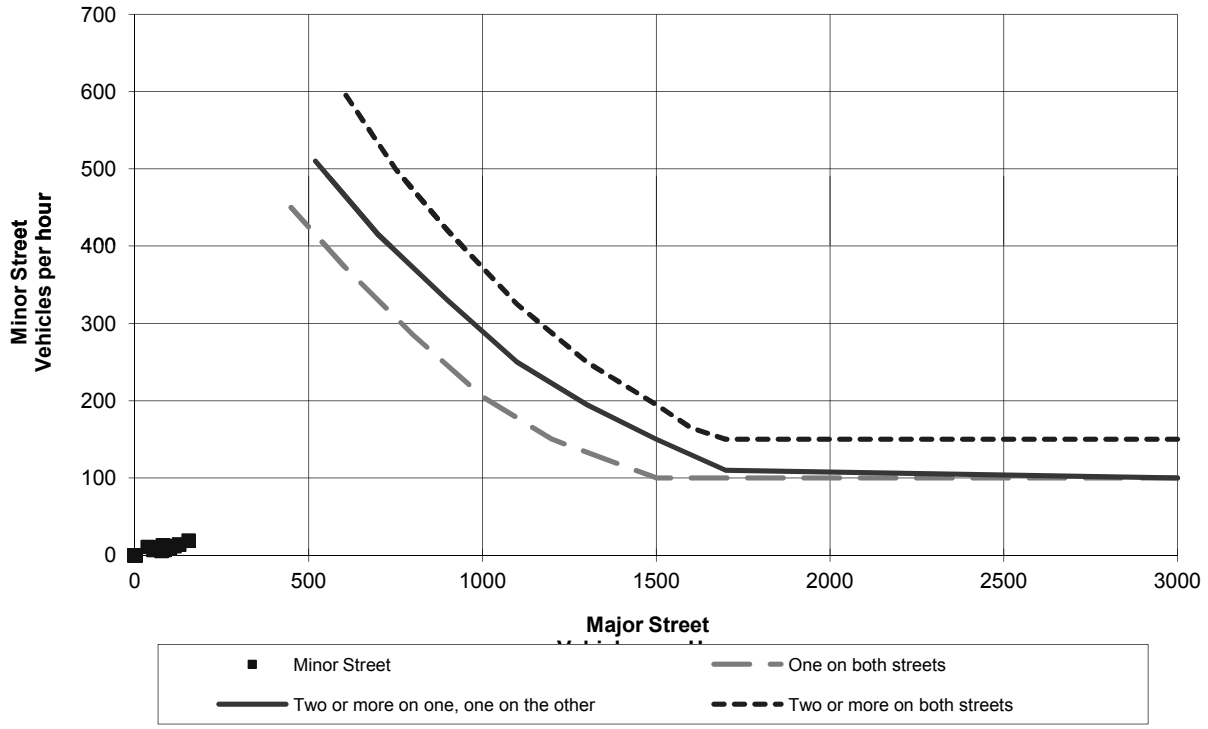
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Magnetic Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 23 Front Street and Magnetic Street

Major Street: Front Street Minor Street: Magnetic Street

Intersection: Front Street and Magnetic Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	16	54	5	4	70	5	79
07:00 - 08:00	34	98	20	7	132	20	159
08:00 - 09:00	34	89	25	13	123	25	161
09:00 - 10:00	37	110	19	11	147	19	177
10:00 - 11:00	35	91	7	14	126	14	147
11:00 - 12:00	46	103	20	21	149	21	190
12:00 - 13:00	46	132	10	16	178	16	204
13:00 - 14:00	47	95	16	15	142	16	173
14:00 - 15:00	66	110	17	20	176	20	213
15:00 - 16:00	77	103	13	21	180	21	214
16:00 - 17:00	95	121	11	34	216	34	261
17:00 - 18:00	107	153	19	39	260	39	318
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**640**	**1259**	**182**	**215**	**1899**	**250**	**2296**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	70	5	No
07:00 - 08:00	132	20	No
08:00 - 09:00	123	25	No
09:00 - 10:00	147	19	No
10:00 - 11:00	126	14	No
11:00 - 12:00	149	21	No
12:00 - 13:00	178	16	No
13:00 - 14:00	142	16	No
14:00 - 15:00	176	20	No
15:00 - 16:00	180	21	No
16:00 - 17:00	216	34	No
17:00 - 18:00	260	39	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

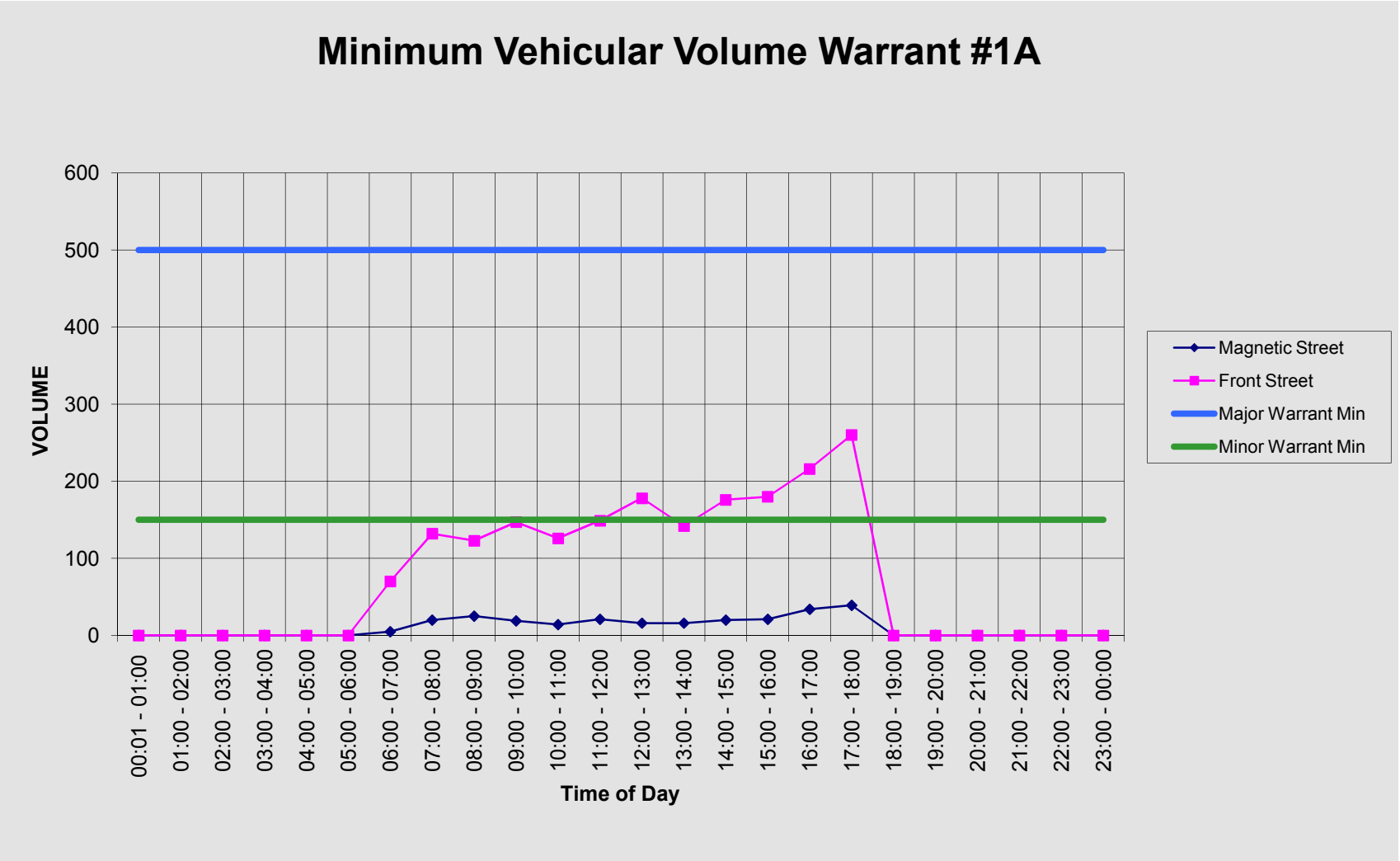
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Front Street and Magnetic Street
Spot Number: 23 Front Street and Magnetic Street

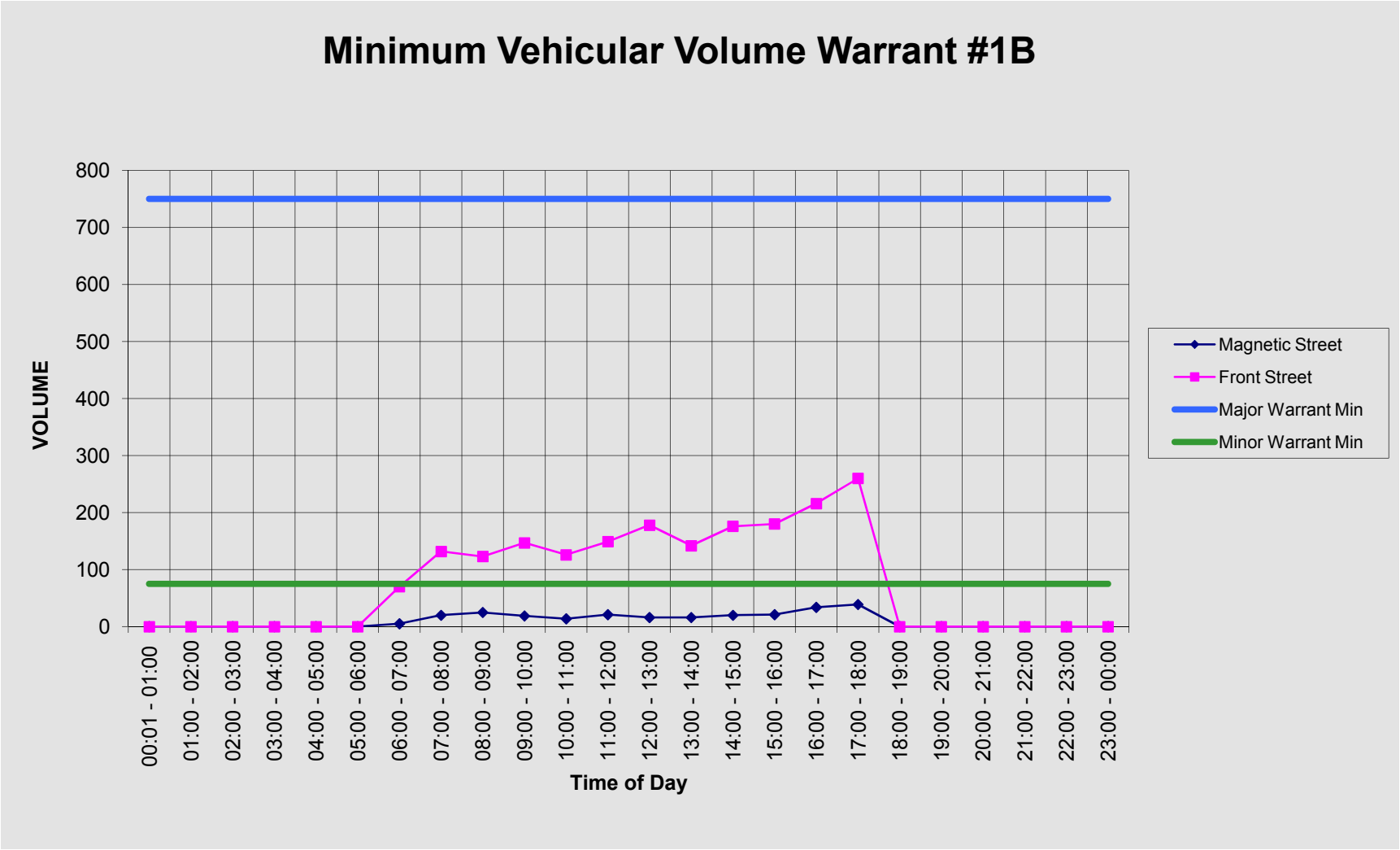
Major Street: Front Street
Minor Street: Magnetic Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Front Street and Magnetic Street
Spot Number: 23 Front Street and Magnetic Street

Major Street: Front Street
Minor Street: Magnetic Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette

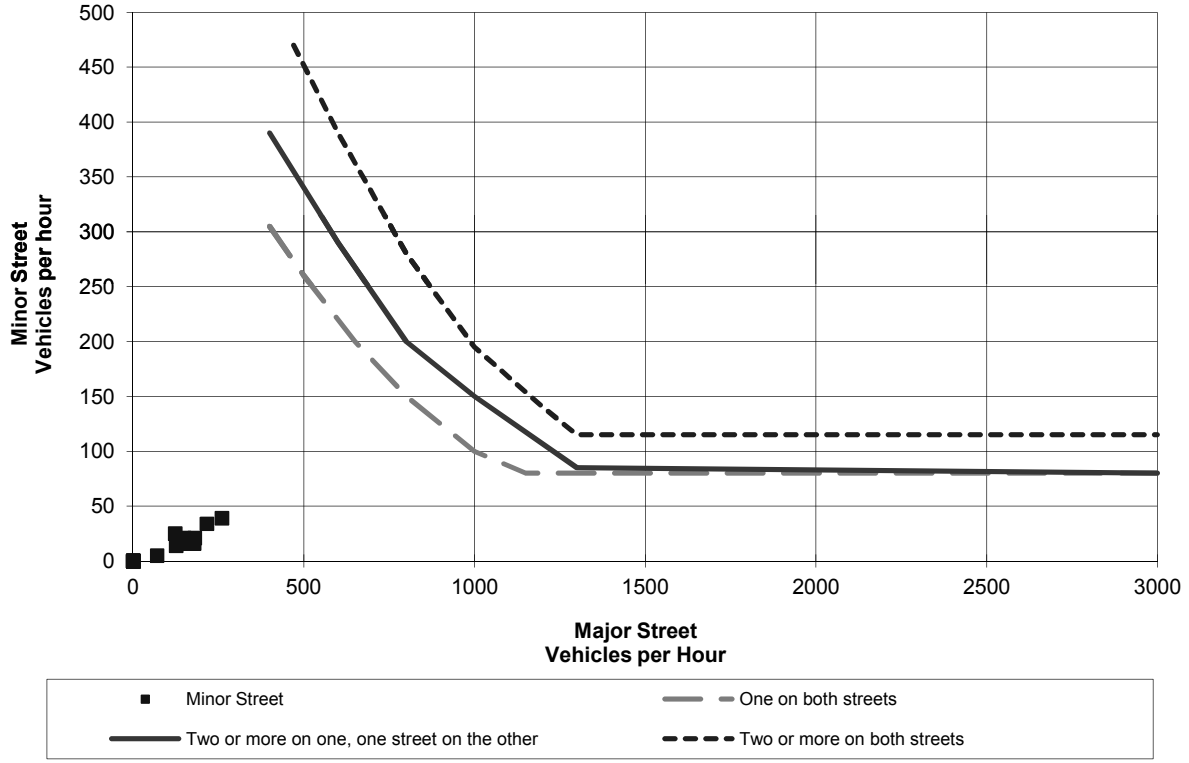
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 39 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette

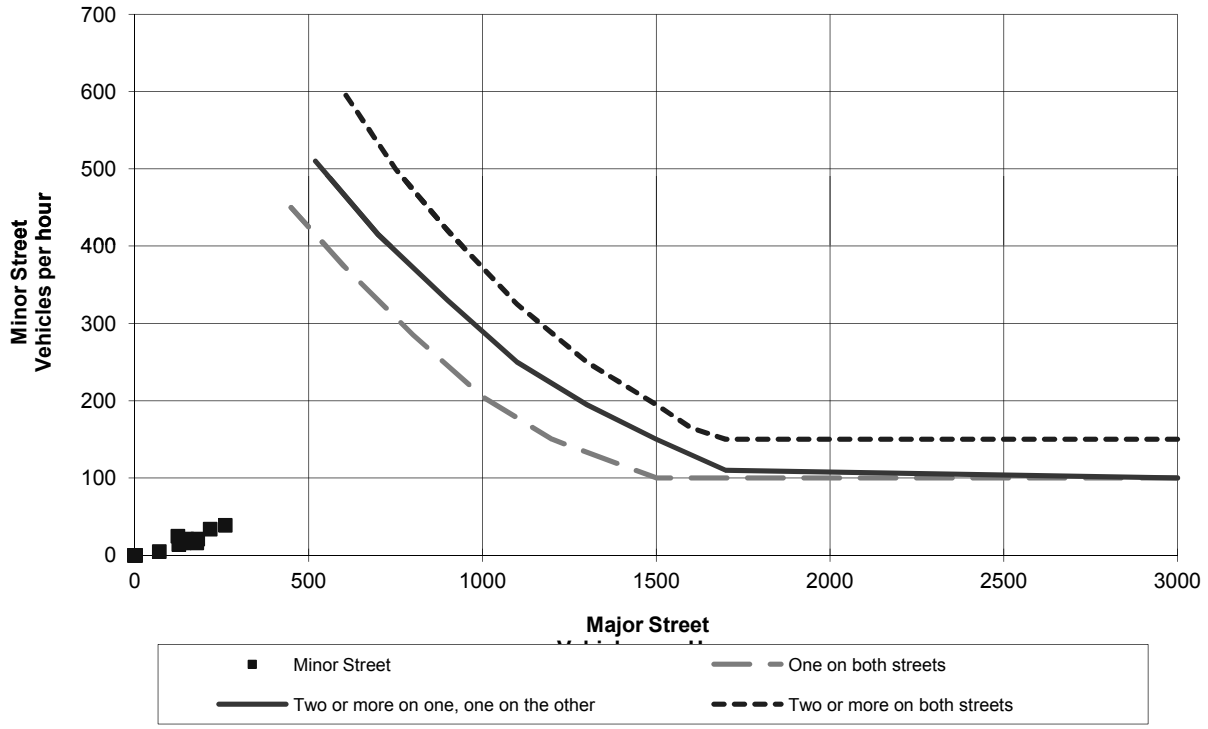
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Magnetic Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 24 Third Street and Magnetic Street

Major Street: Third Street Minor Street: Magnetic Street

Intersection: Third Street and Magnetic Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	50	103	14	7	153	14	174
07:00 - 08:00	150	222	27	16	372	27	415
08:00 - 09:00	159	204	36	20	363	36	419
09:00 - 10:00	217	229	30	28	446	30	504
10:00 - 11:00	204	219	15	35	423	35	473
11:00 - 12:00	343	272	25	40	615	40	680
12:00 - 13:00	391	357	25	25	748	25	798
13:00 - 14:00	335	299	20	36	634	36	690
14:00 - 15:00	384	289	33	44	673	44	750
15:00 - 16:00	392	304	23	56	696	56	775
16:00 - 17:00	439	301	22	60	740	60	822
17:00 - 18:00	434	409	39	43	843	43	925
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3498**	**3208**	**309**	**410**	**6706**	**446**	**7425**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	153	14	No
07:00 - 08:00	372	27	No
08:00 - 09:00	363	36	No
09:00 - 10:00	446	30	No
10:00 - 11:00	423	35	No
11:00 - 12:00	615	40	No
12:00 - 13:00	748	25	No
13:00 - 14:00	634	36	No
14:00 - 15:00	673	44	No
15:00 - 16:00	696	56	No
16:00 - 17:00	740	60	No
17:00 - 18:00	843	43	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

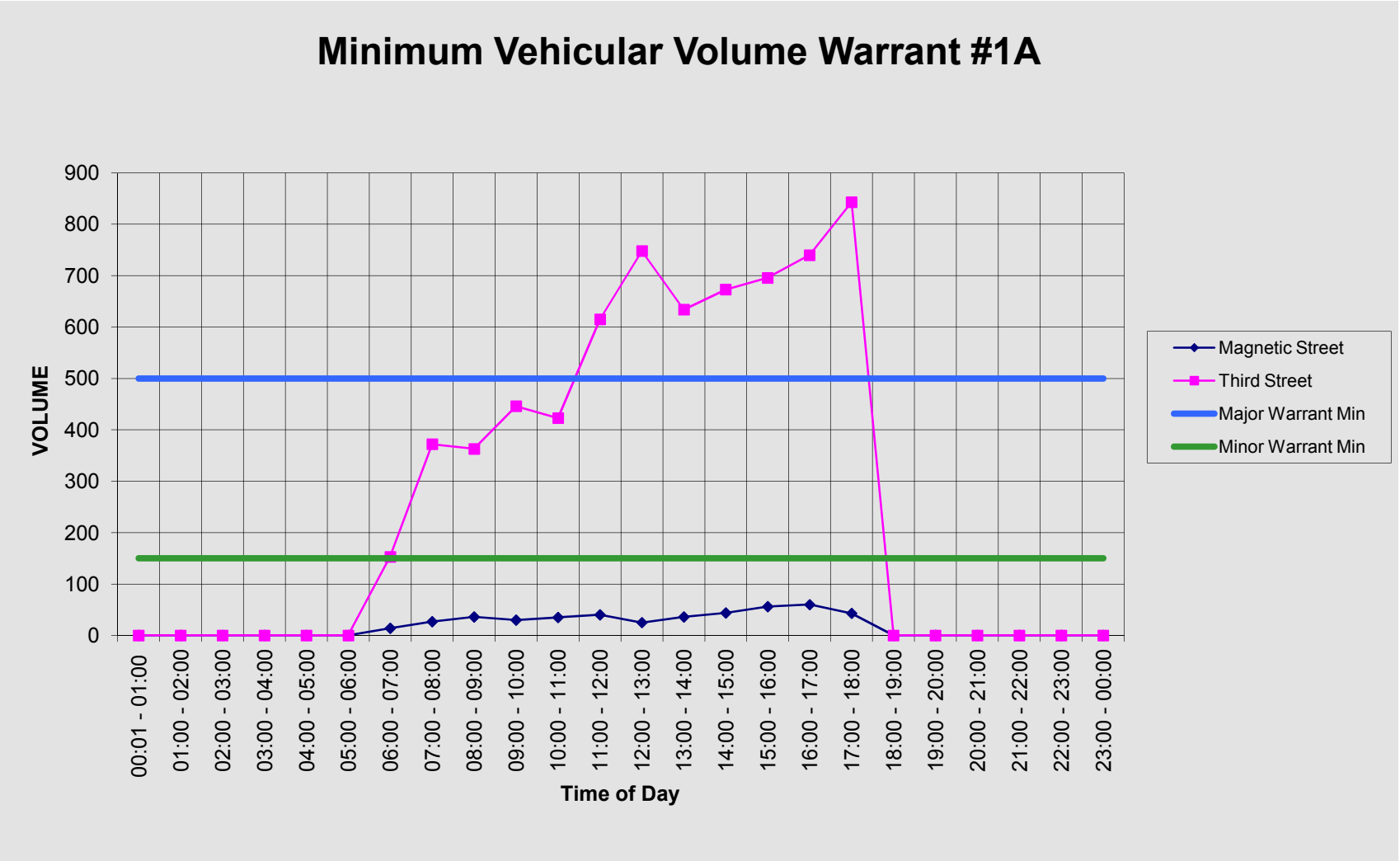
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Third Street and Magnetic Street
Spot Number: 24 Third Street and Magnetic Street

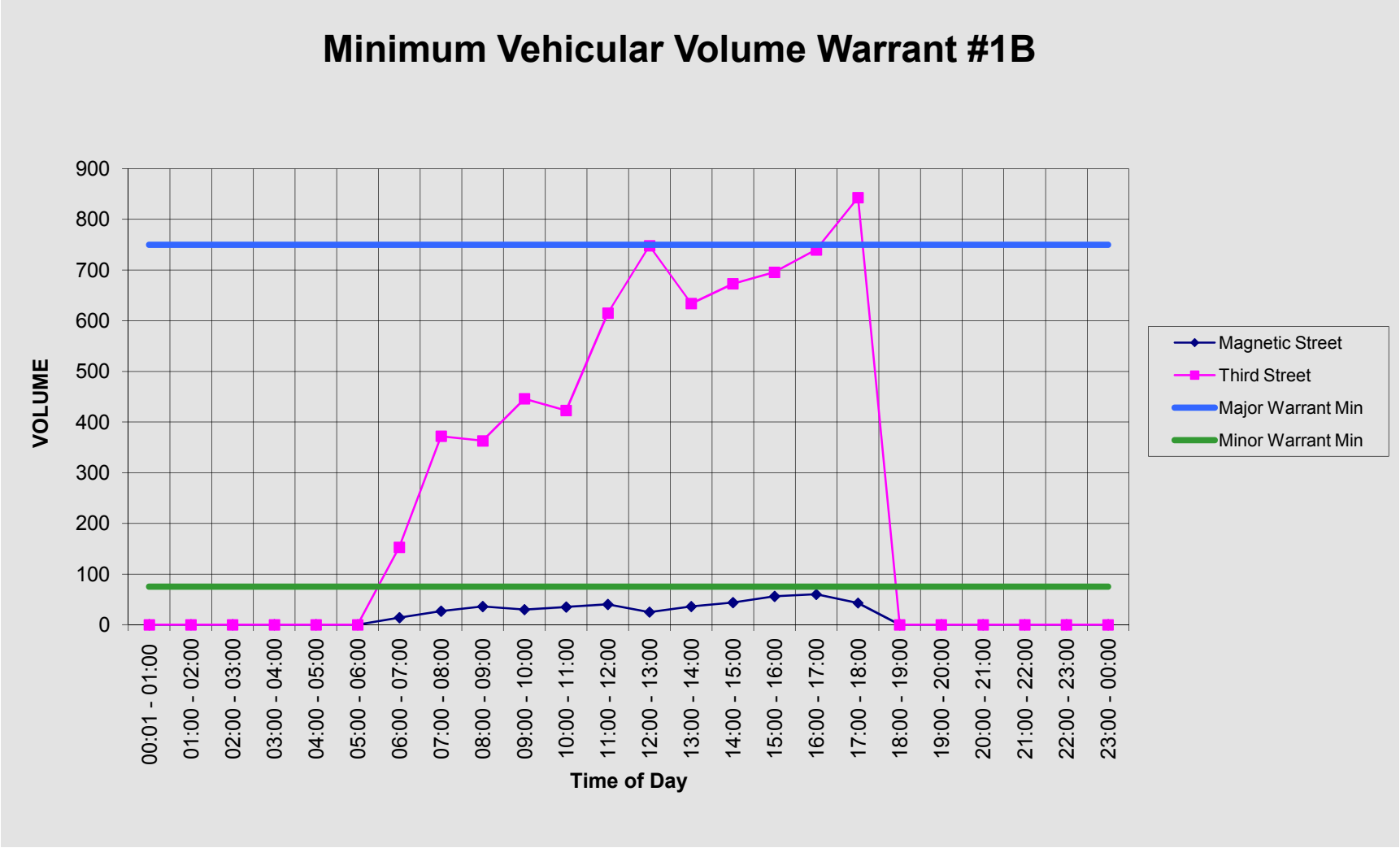
Major Street: Third Street
Minor Street: Magnetic Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Third Street and Magnetic Street
Spot Number: 24 Third Street and Magnetic Street

Major Street: Third Street
Minor Street: Magnetic Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette

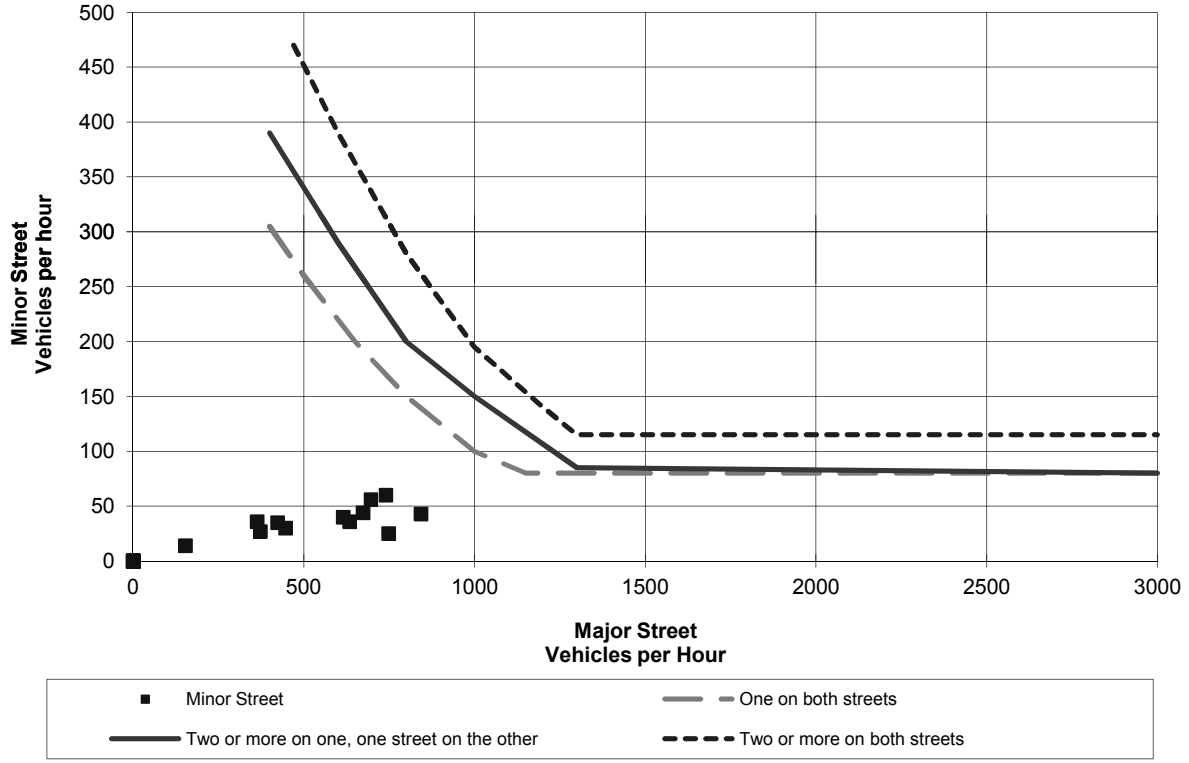
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 60 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette

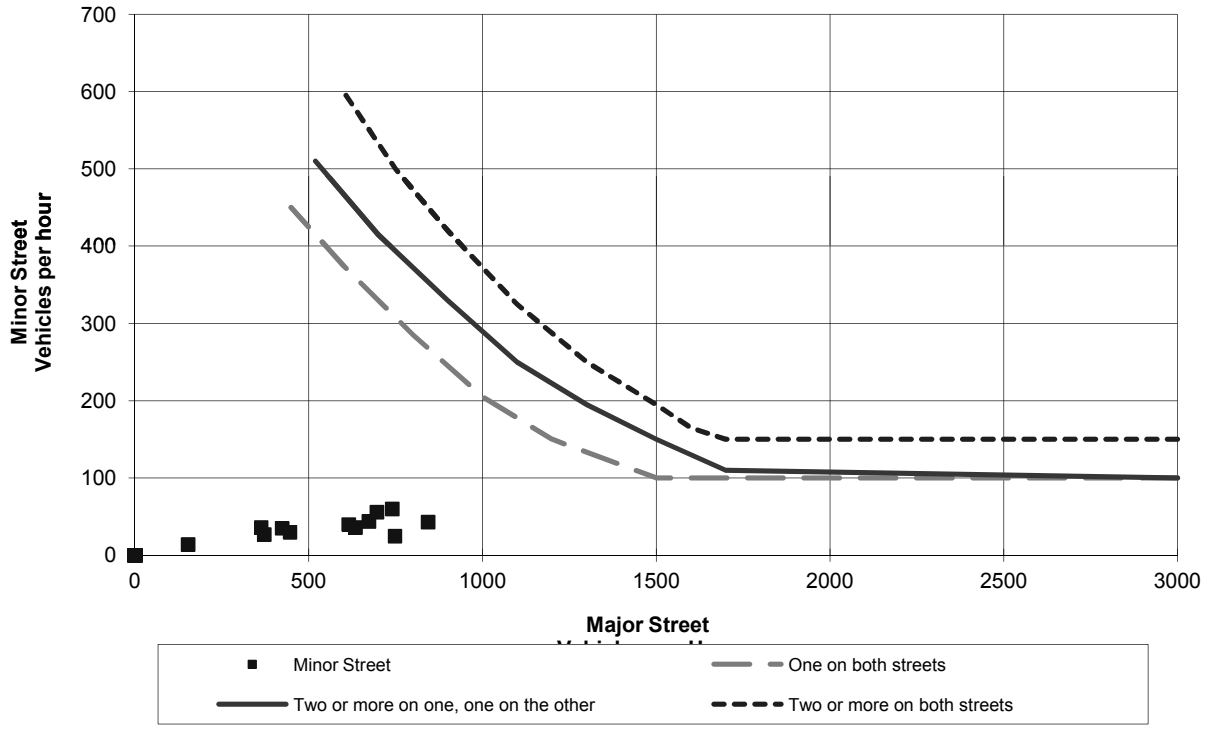
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Magnetic Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 25 Fourth Street and Magnetic Street

Major Street: Fourth Street Minor Street: Magnetic Street

Intersection: Fourth Street and Magnetic Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2014

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	54	169	24	14	223	24	261
07:00 - 08:00	142	268	44	40	410	44	494
08:00 - 09:00	156	246	34	24	402	34	460
09:00 - 10:00	143	223	39	38	366	39	443
10:00 - 11:00	157	196	40	24	353	40	417
11:00 - 12:00	235	267	48	49	502	49	599
12:00 - 13:00	315	275	77	45	590	77	712
13:00 - 14:00	233	252	54	57	485	57	596
14:00 - 15:00	325	238	61	66	563	66	690
15:00 - 16:00	345	245	66	97	590	97	753
16:00 - 17:00	321	244	43	80	565	80	688
17:00 - 18:00	326	329	52	85	655	85	792
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2752**	**2952**	**582**	**619**	**5704**	**692**	**6905**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	223	24	No
07:00 - 08:00	410	44	No
08:00 - 09:00	402	34	No
09:00 - 10:00	366	39	No
10:00 - 11:00	353	40	No
11:00 - 12:00	502	49	No
12:00 - 13:00	590	77	No
13:00 - 14:00	485	57	No
14:00 - 15:00	563	66	No
15:00 - 16:00	590	97	No
16:00 - 17:00	565	80	No
17:00 - 18:00	655	85	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

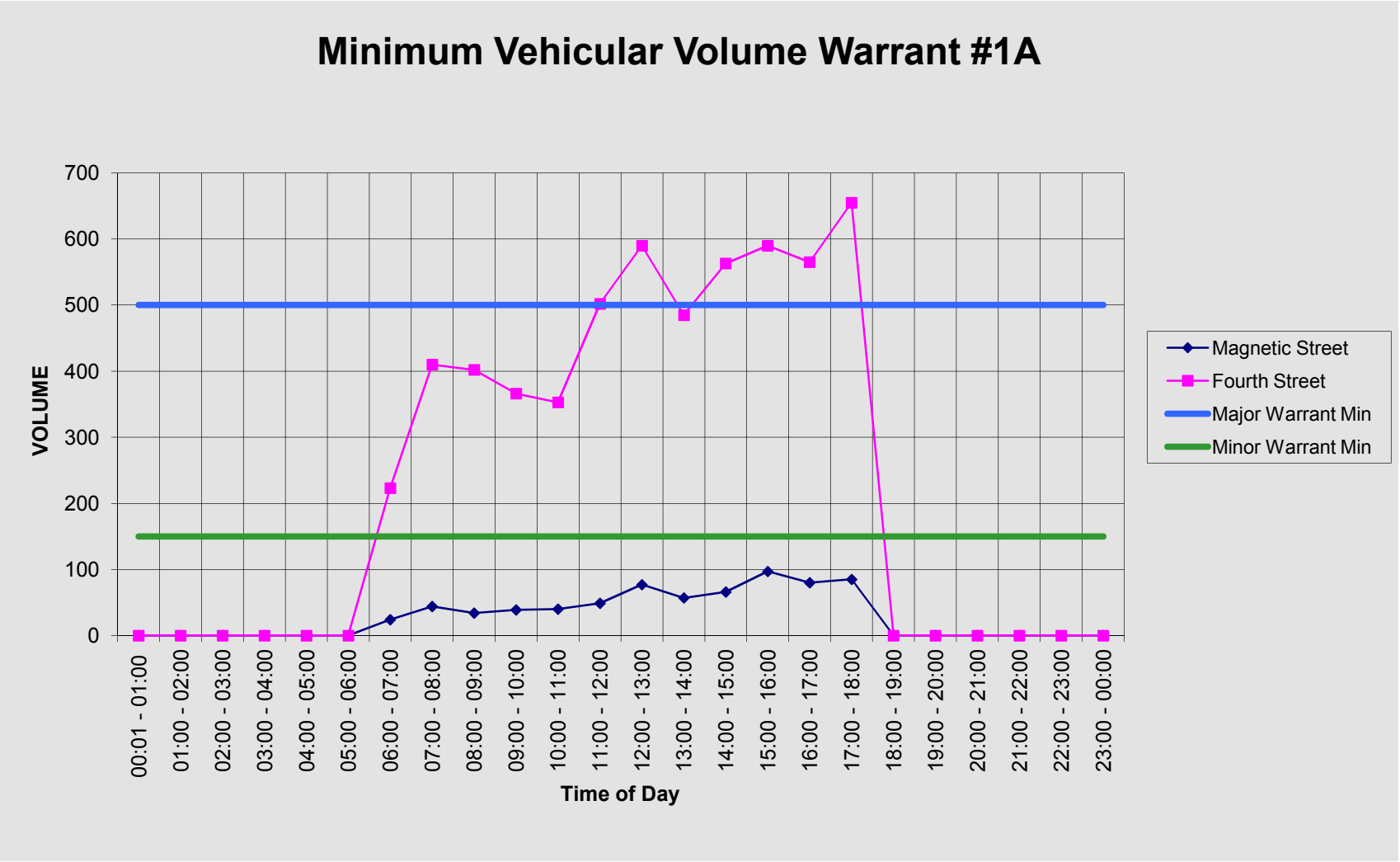
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Fourth Street and Magnetic Street
Spot Number: 25 Fourth Street and Magnetic Street

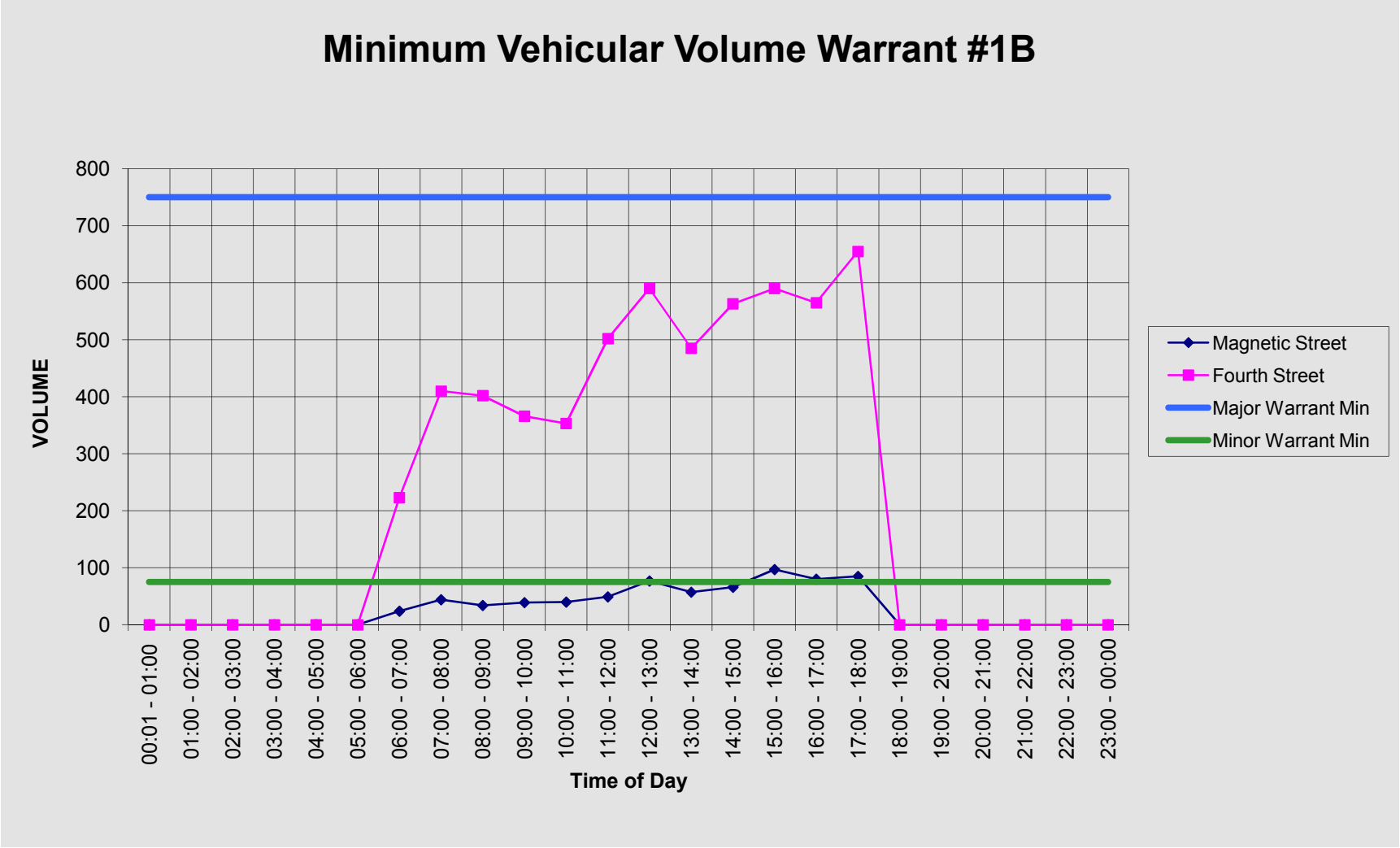
Major Street: Fourth Street
Minor Street: Magnetic Street
Date of Survey: 10/02/14



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Fourth Street and Magnetic Street
Spot Number: 25 Fourth Street and Magnetic Street

Major Street: Fourth Street
Minor Street: Magnetic Street
Date of Survey: 10/02/14



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette

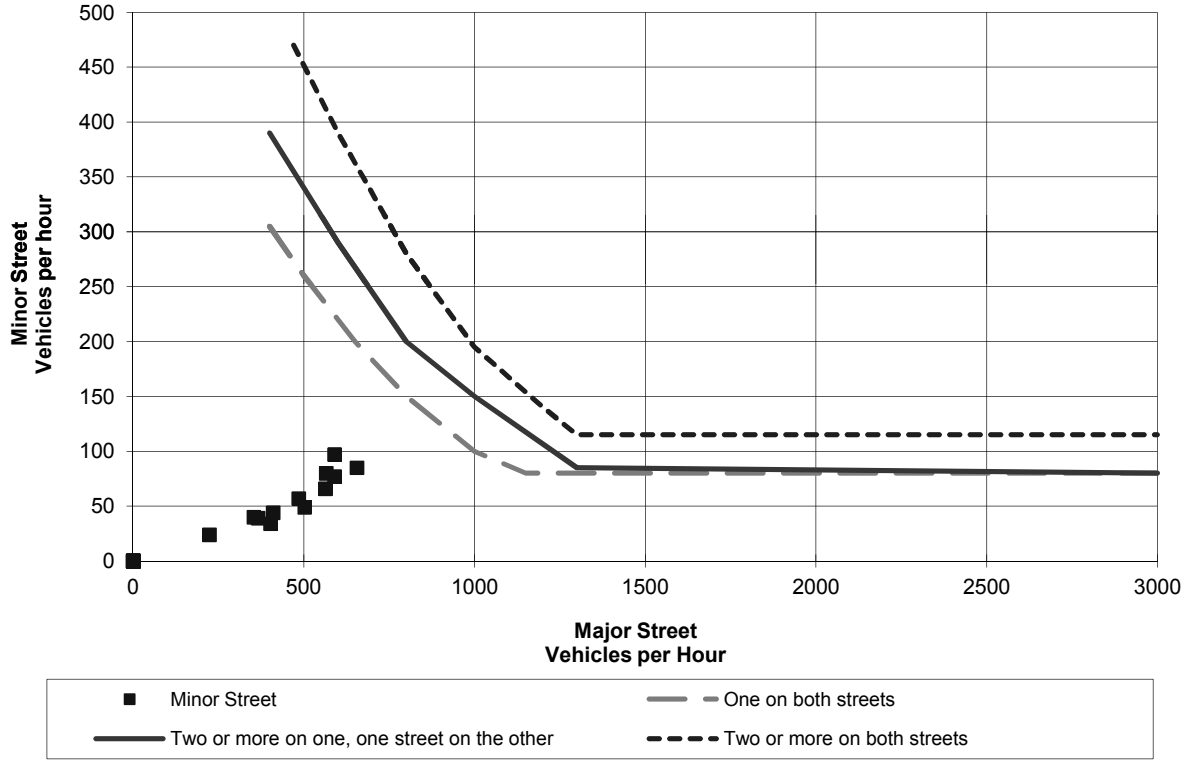
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 97 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 15:00 - 16:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette

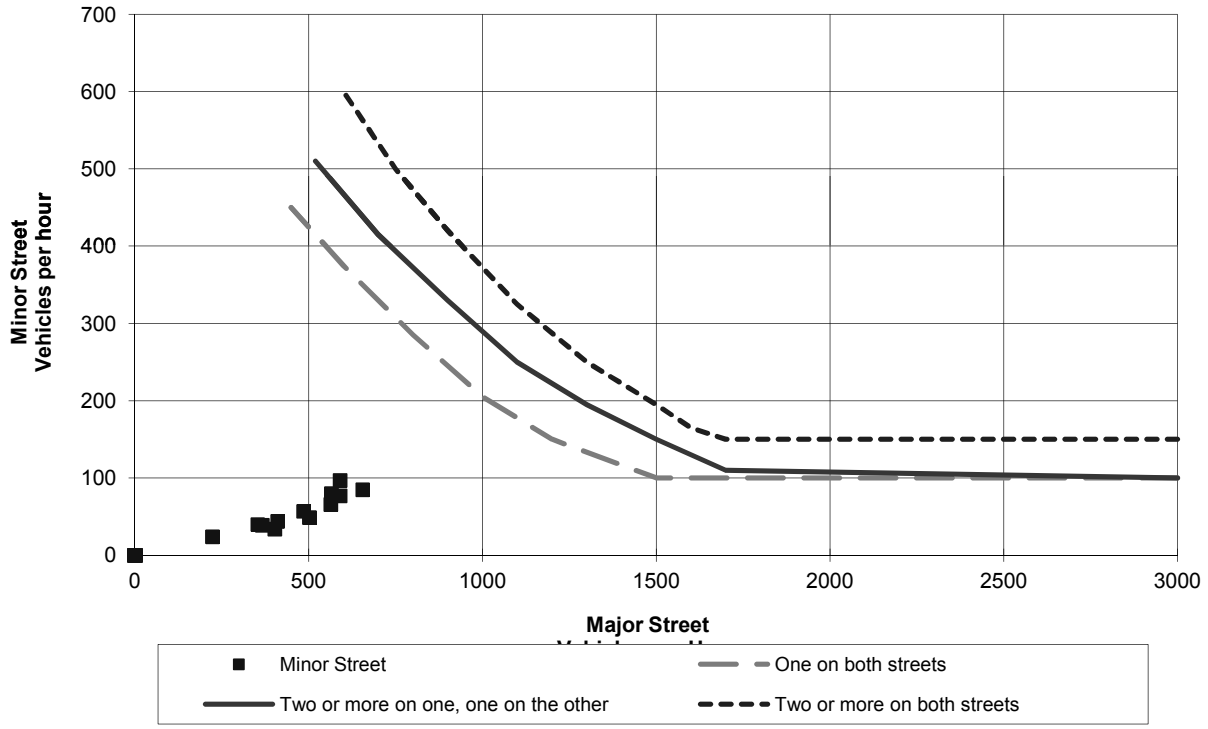
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? NO

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Magnetic Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 26 Lakshore Blvd and Crescent Street

Major Street: Lakeshore Blvd Minor Street: Cresecent Street

Intersection: Lakeshore Blvd and Crescent Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major SB	Major NB	Minor EB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	20	34	4	0	54	4	58
07:00 - 08:00	44	100	20	0	144	20	164
08:00 - 09:00	72	110	15	0	182	15	197
09:00 - 10:00	89	122	19	0	211	19	230
10:00 - 11:00	118	111	15	0	229	15	244
11:00 - 12:00	115	150	19	0	265	19	284
12:00 - 13:00	149	168	20	0	317	20	337
13:00 - 14:00	174	172	26	0	346	26	372
14:00 - 15:00	169	183	27	0	352	27	379
15:00 - 16:00	231	193	25	0	424	25	449
16:00 - 17:00	216	181	27	0	397	27	424
17:00 - 18:00	247	276	46	0	523	46	569
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1644**	**1800**	**263**	**0**	**3444**	**263**	**3707**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	54	4	No
07:00 - 08:00	144	20	No
08:00 - 09:00	182	15	No
09:00 - 10:00	211	19	No
10:00 - 11:00	229	15	No
11:00 - 12:00	265	19	No
12:00 - 13:00	317	20	No
13:00 - 14:00	346	26	No
14:00 - 15:00	352	27	No
15:00 - 16:00	424	25	No
16:00 - 17:00	397	27	No
17:00 - 18:00	523	46	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

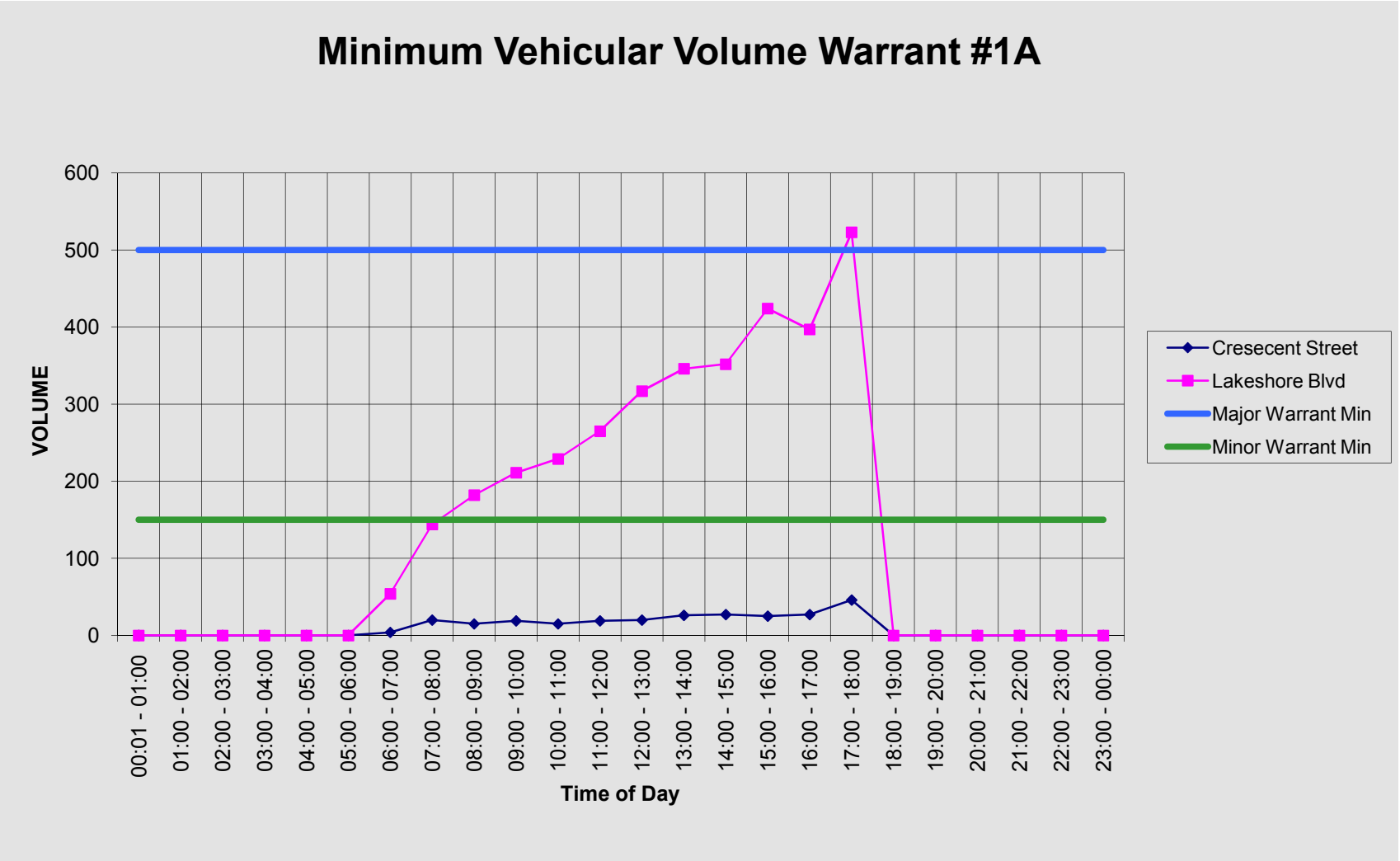
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? No
B. Is the Interruption of Continuous Traffic Met? No
Combination of Warrants A and B Criteria Met? No
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lakeshore Blvd and Crescent Street
Spot Number: 26 Lakshore Blvd and Crescent Street

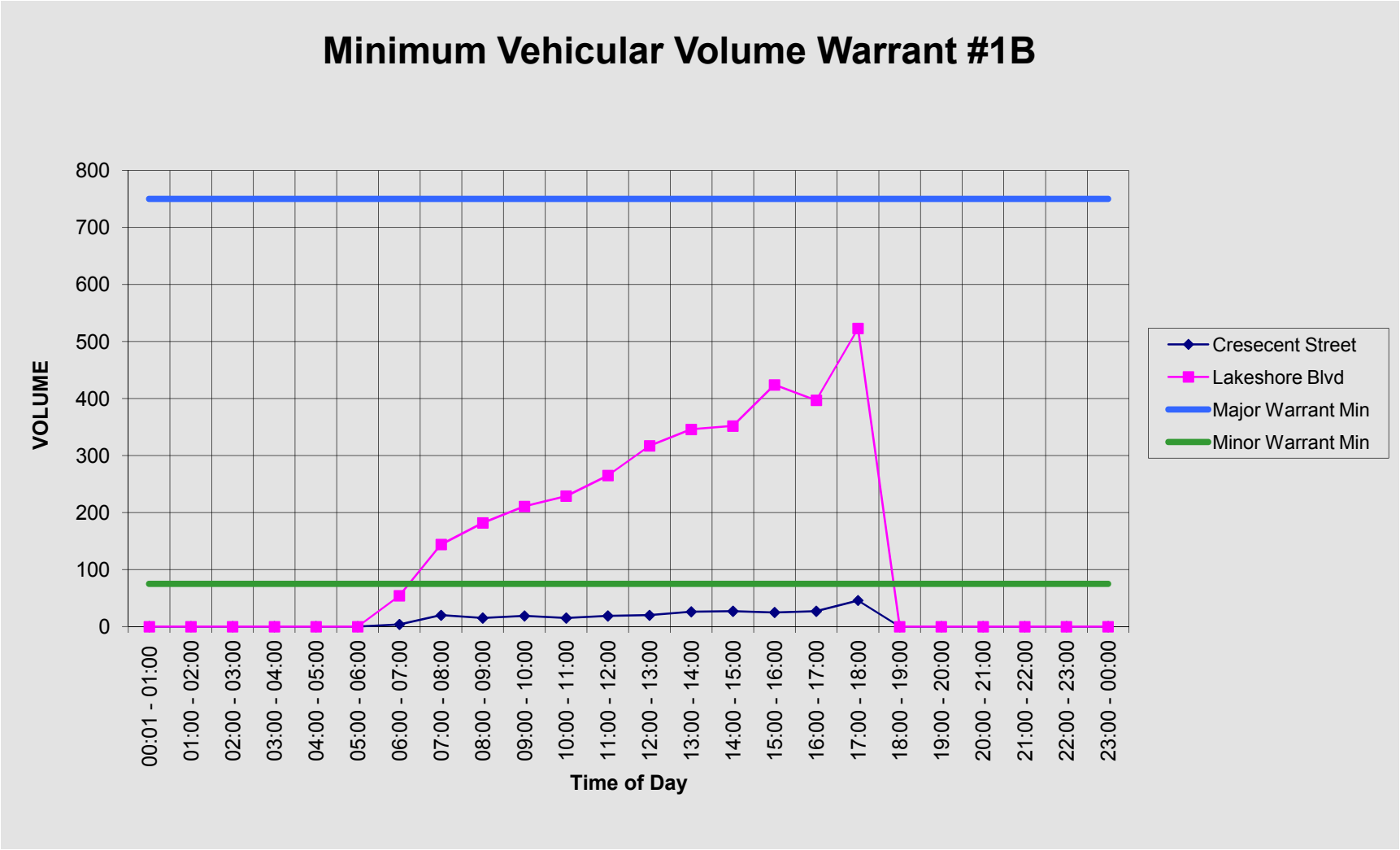
Major Street: Lakeshore Blvd
Minor Street: Cresecent Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lakeshore Blvd and Crescent Street
Spot Number: 26 Lakshore Blvd and Crescent Street

Major Street: Lakeshore Blvd
Minor Street: Cresecent Street
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette

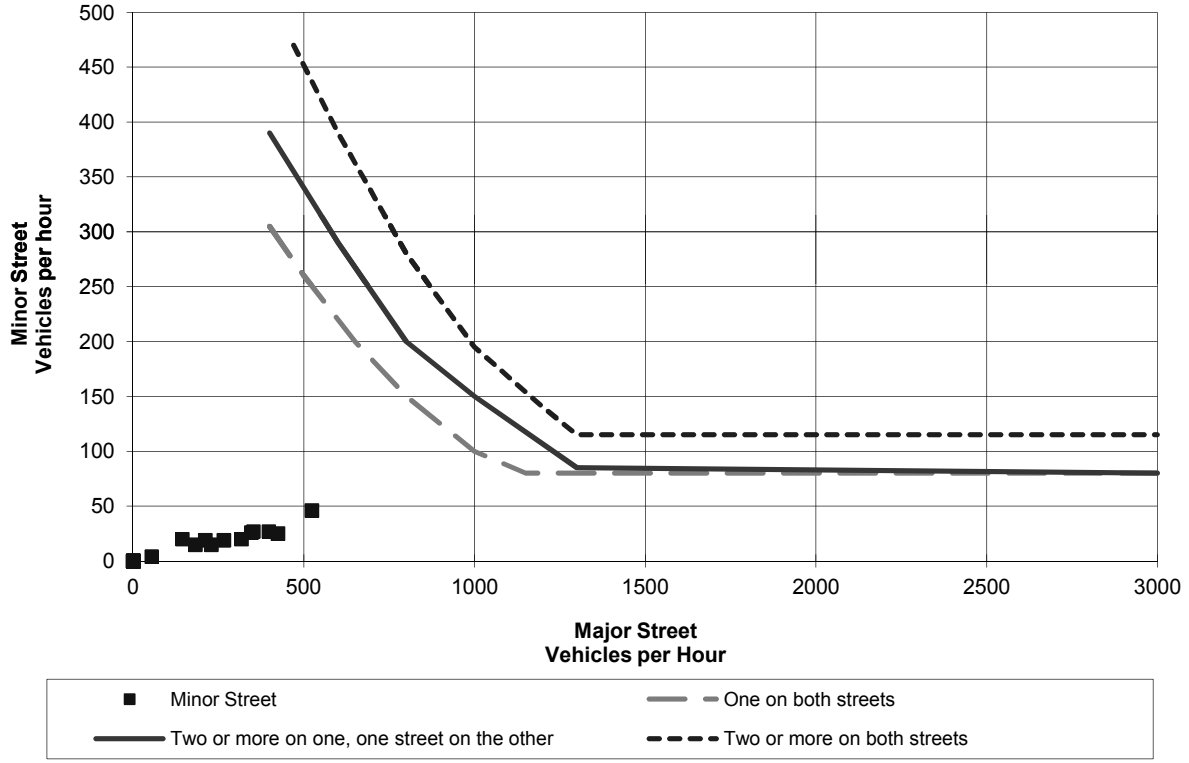
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 46 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette

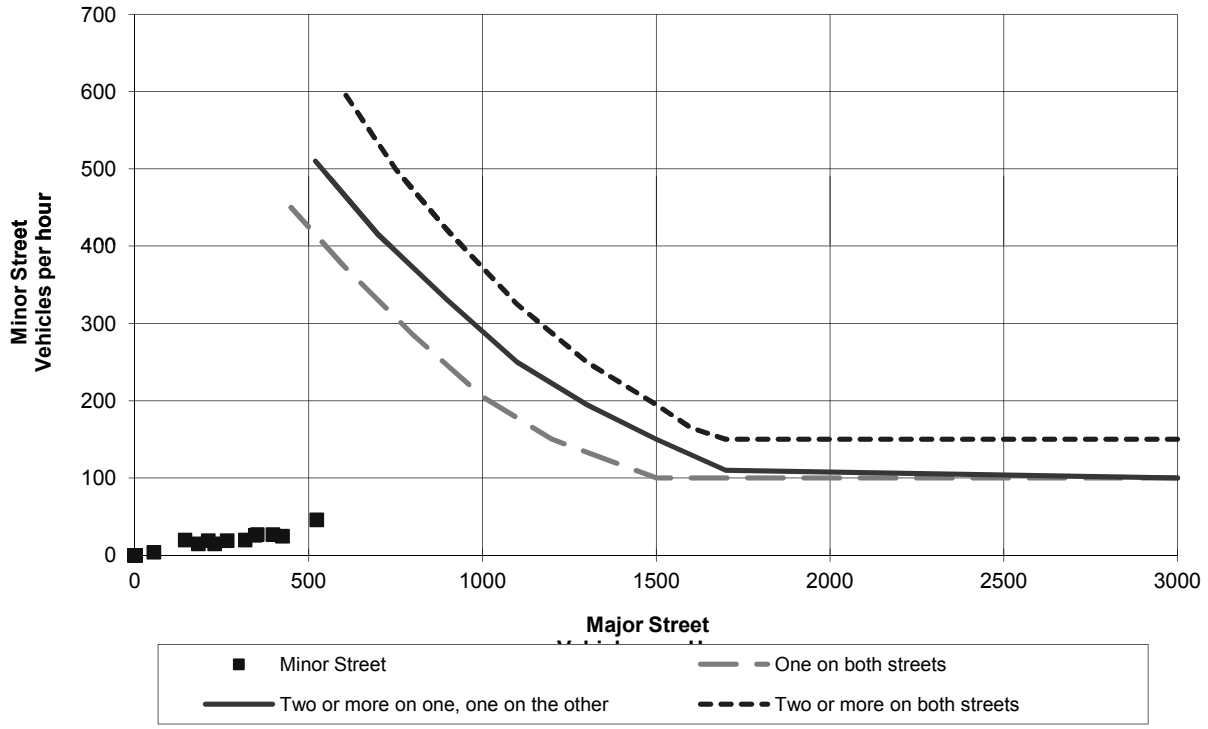
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? NO

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Crescent Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 27 Lakeshore Blvd and Hewitt Avenue

Major Street: Lakeshore Blvd Minor Street: Hewitt Avenue

Intersection: Lakeshore Blvd and Hewitt Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major SEB	Major NWB	Minor EB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	30	56	7	0	86	7	93
07:00 - 08:00	62	122	19	0	184	19	203
08:00 - 09:00	78	106	19	0	184	19	203
09:00 - 10:00	94	113	8	0	207	8	215
10:00 - 11:00	109	136	12	0	245	12	257
11:00 - 12:00	123	156	15	0	279	15	294
12:00 - 13:00	180	177	26	0	357	26	383
13:00 - 14:00	147	175	21	0	322	21	343
14:00 - 15:00	183	198	32	0	381	32	413
15:00 - 16:00	227	192	26	0	419	26	445
16:00 - 17:00	207	193	22	0	400	22	422
17:00 - 18:00	209	236	20	0	445	20	465
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1649**	**1860**	**227**	**0**	**3509**	**227**	**3736**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? NO

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	86	7	No
07:00 - 08:00	184	19	No
08:00 - 09:00	184	19	No
09:00 - 10:00	207	8	No
10:00 - 11:00	245	12	No
11:00 - 12:00	279	15	No
12:00 - 13:00	357	26	No
13:00 - 14:00	322	21	No
14:00 - 15:00	381	32	No
15:00 - 16:00	419	26	No
16:00 - 17:00	400	22	No
17:00 - 18:00	445	20	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

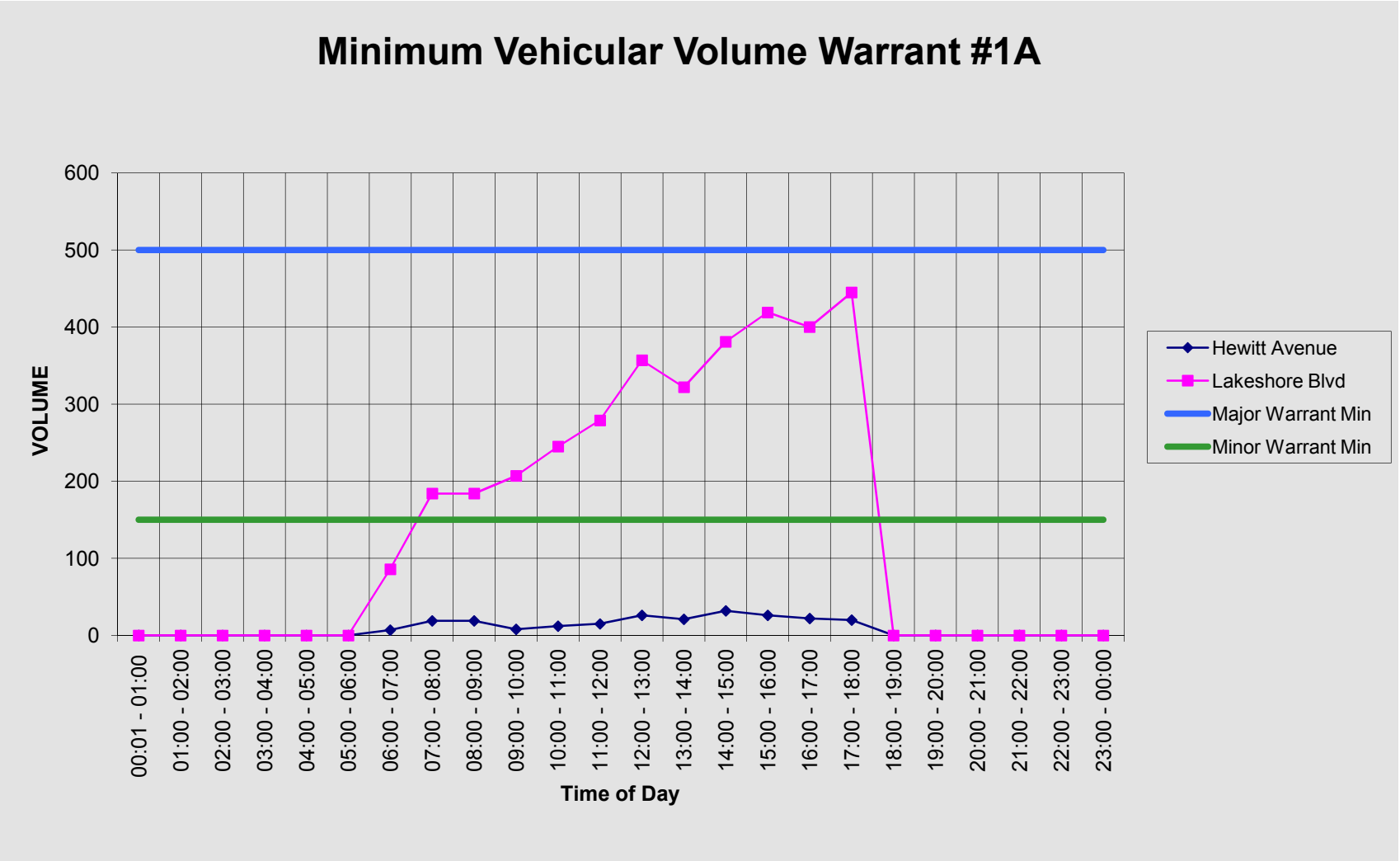
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? NO

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lakeshore Blvd and Hewitt Avenue
Spot Number: 27 Lakeshore Blvd and Hewitt Avenue

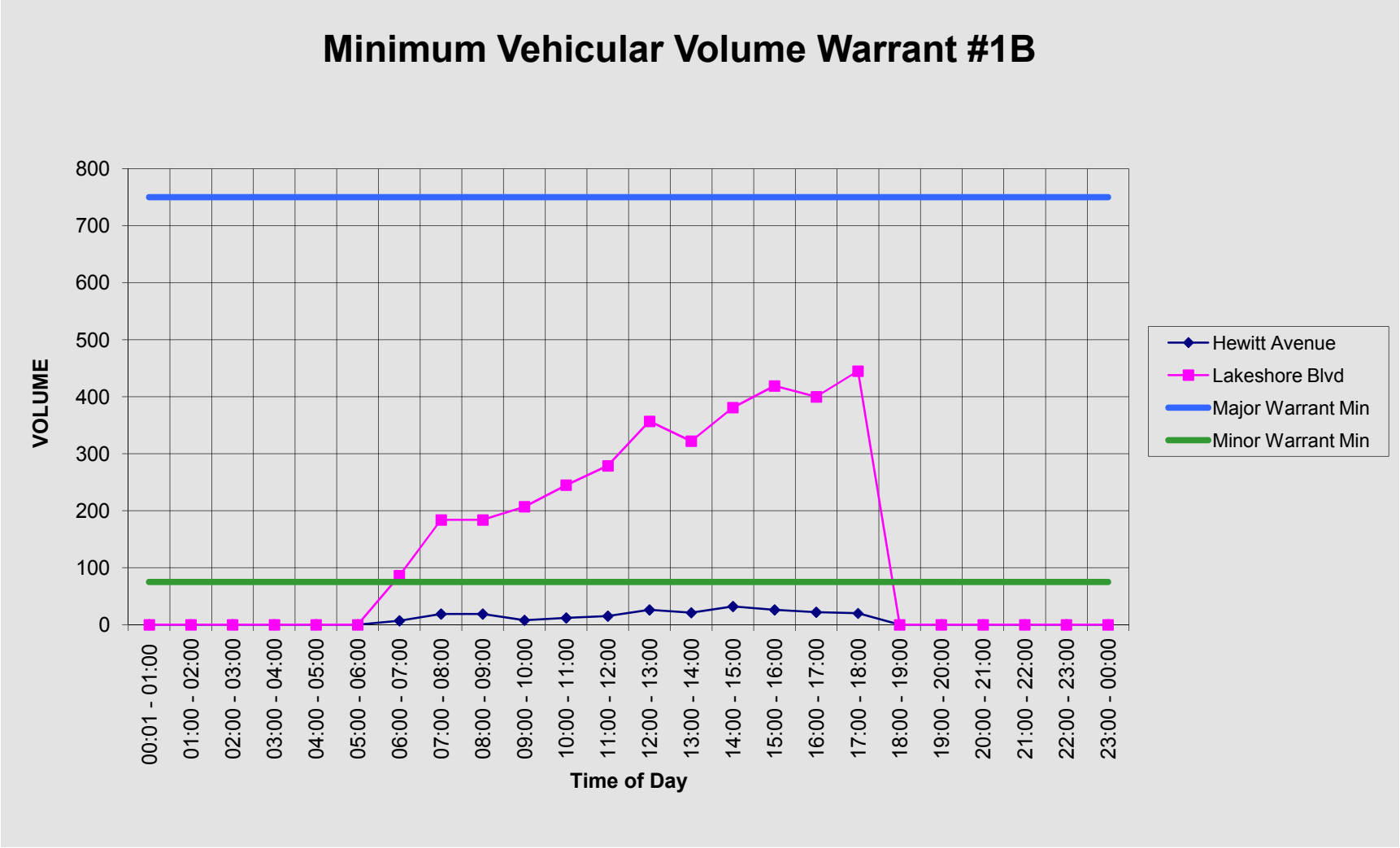
Major Street: Lakeshore Blvd
Minor Street: Hewitt Avenue
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lakeshore Blvd and Hewitt Avenue
Spot Number: 27 Lakeshore Blvd and Hewitt Avenue

Major Street: Lakeshore Blvd
Minor Street: Hewitt Avenue
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette

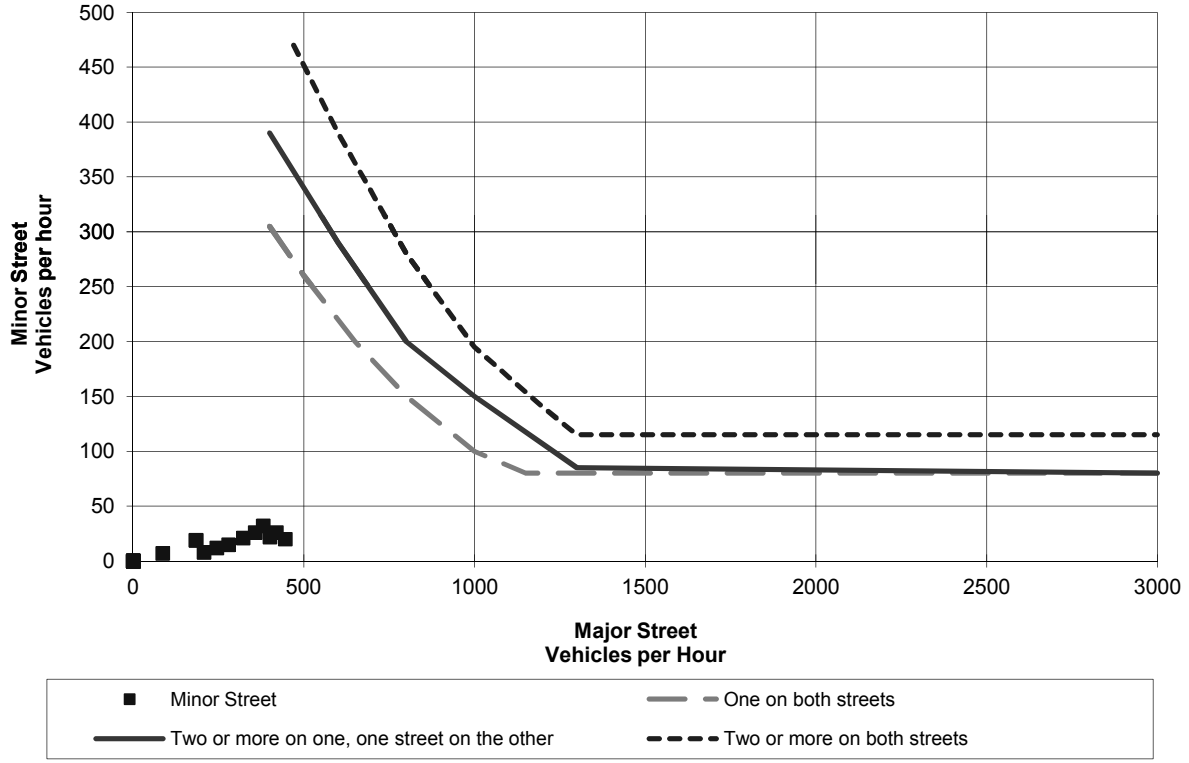
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 32 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 14:00 - 15:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette

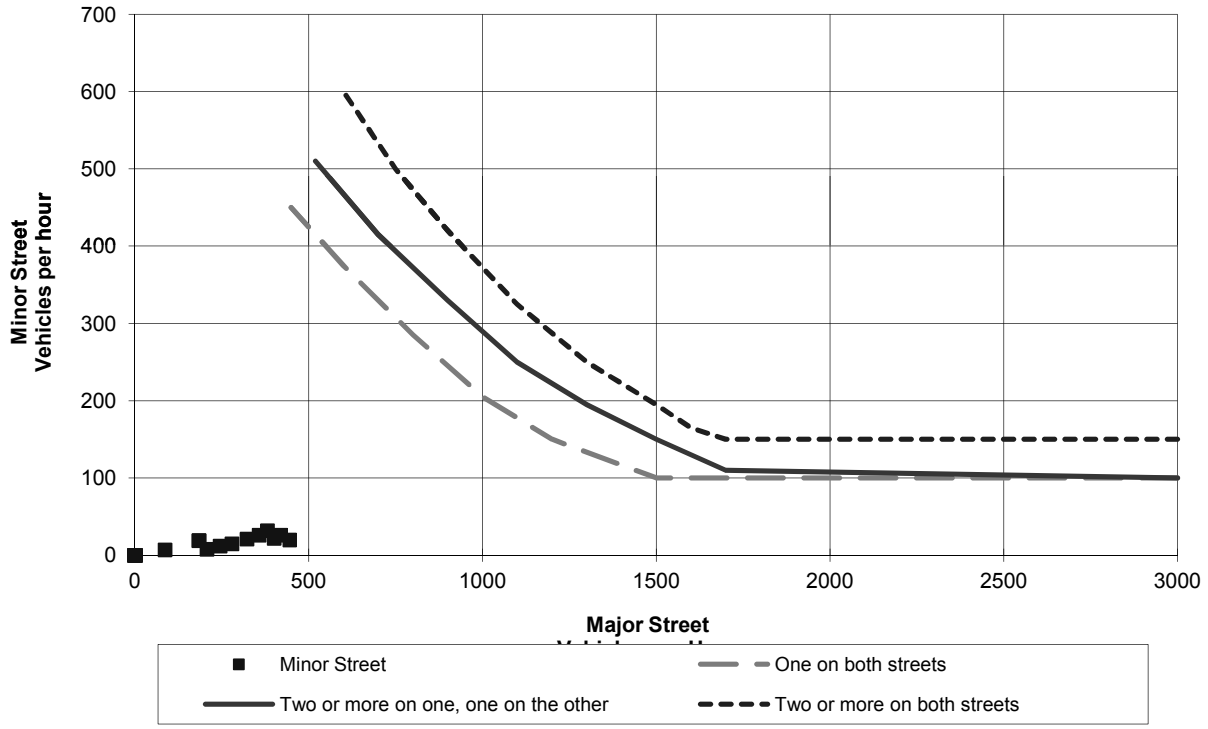
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Hewitt Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 28 Spruce Street and Hewitt Avenue

Major Street: Spruce Street Minor Street: Hewitt Avenue

Intersection: Spruce Street and Hewitt Avenue

City: Marquette

Date Performed: 2/11/2-14 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major NB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	11	3	4	1	14	4	19
07:00 - 08:00	8	21	14	5	29	14	48
08:00 - 09:00	14	13	17	18	27	18	62
09:00 - 10:00	10	16	13	7	26	13	46
10:00 - 11:00	12	13	16	14	25	16	55
11:00 - 12:00	17	23	20	14	40	20	74
12:00 - 13:00	17	20	21	22	37	22	80
13:00 - 14:00	14	15	13	22	29	22	64
14:00 - 15:00	15	23	29	27	38	29	94
15:00 - 16:00	17	22	23	22	39	23	84
16:00 - 17:00	19	29	26	24	48	26	98
17:00 - 18:00	23	27	25	28	50	28	103
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**177**	**225**	**221**	**204**	**402**	**235**	**827**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette
Date 2/11/2-14 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	14	4	No
07:00 - 08:00	29	14	No
08:00 - 09:00	27	18	No
09:00 - 10:00	26	13	No
10:00 - 11:00	25	16	No
11:00 - 12:00	40	20	No
12:00 - 13:00	37	22	No
13:00 - 14:00	29	22	No
14:00 - 15:00	38	29	No
15:00 - 16:00	39	23	No
16:00 - 17:00	48	26	No
17:00 - 18:00	50	28	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

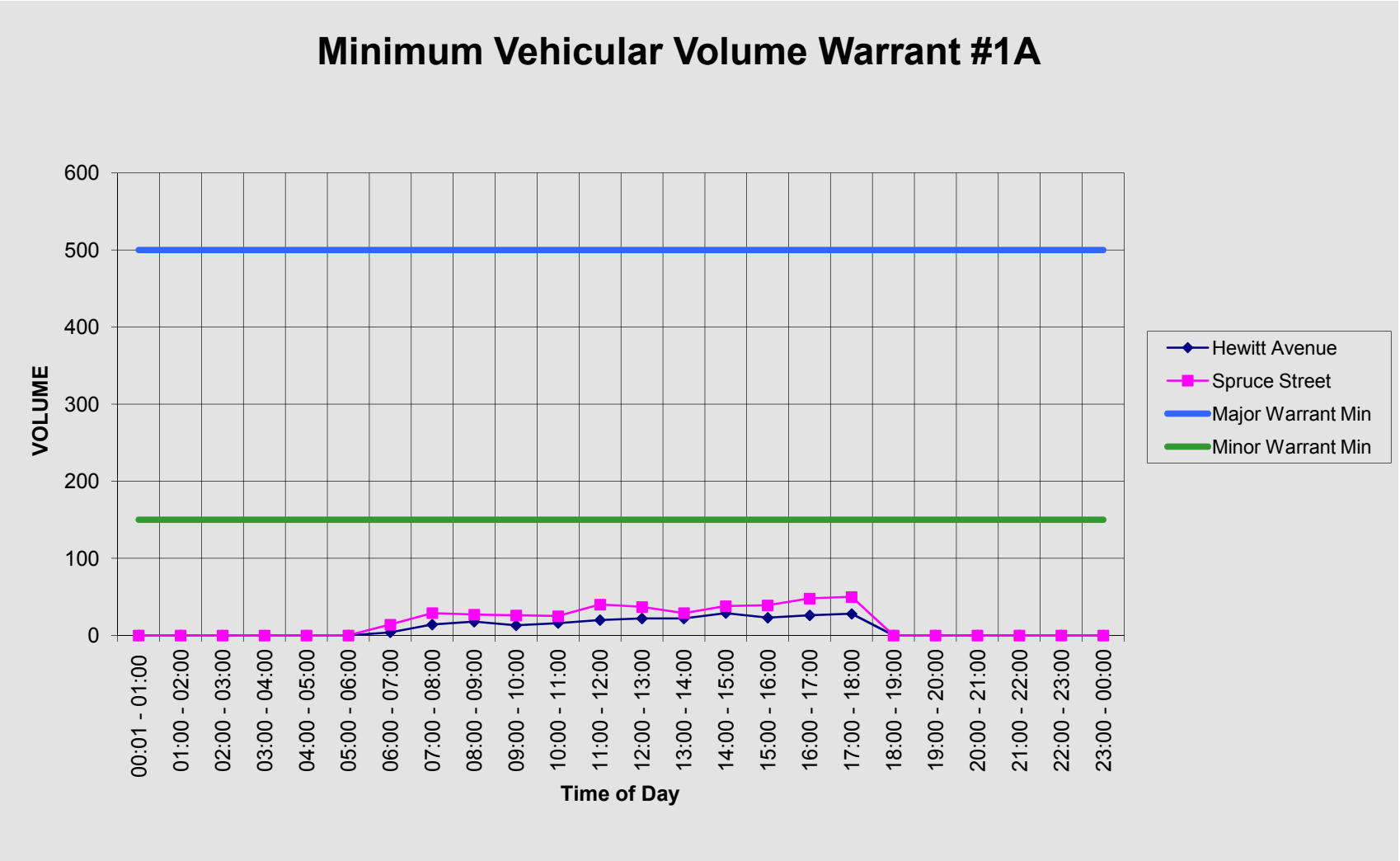
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? No
B. Is the Interruption of Continuous Traffic Met? No
Combination of Warrants A and B Criteria Met? No
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Spruce Street and Hewitt Avenue
Spot Number: 28 Spruce Street and Hewitt Avenue

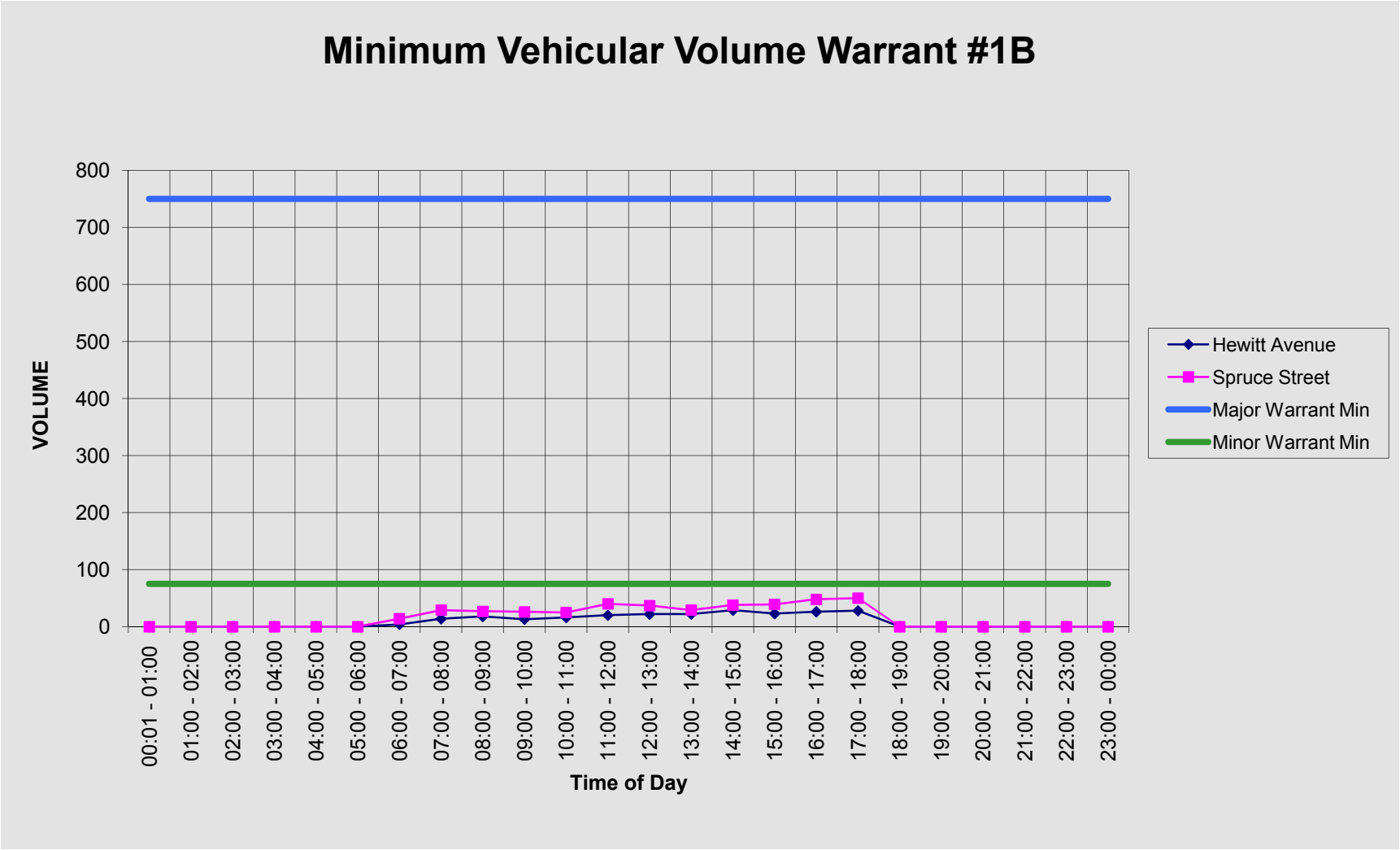
Major Street: Spruce Street
Minor Street: Hewitt Avenue
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Spruce Street and Hewitt Avenue
Spot Number: 28 Spruce Street and Hewitt Avenue

Major Street: Spruce Street
Minor Street: Hewitt Avenue
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette

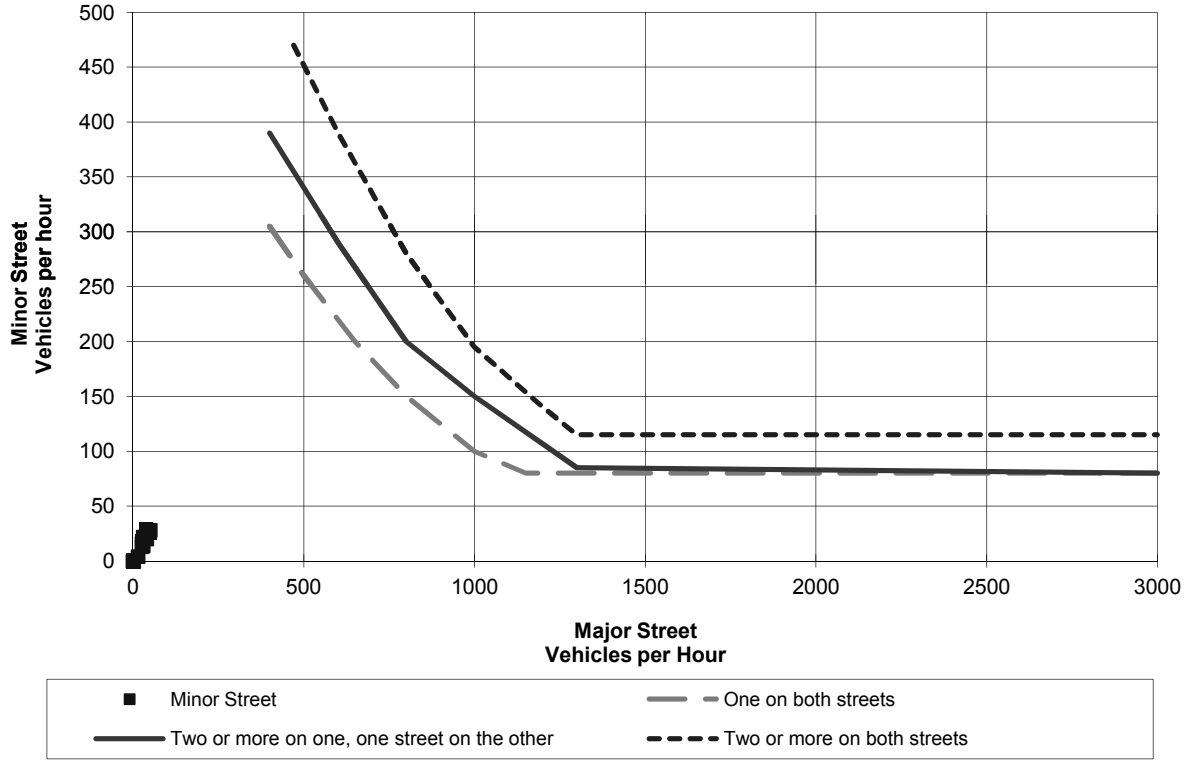
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 29 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 14:00 - 15:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette

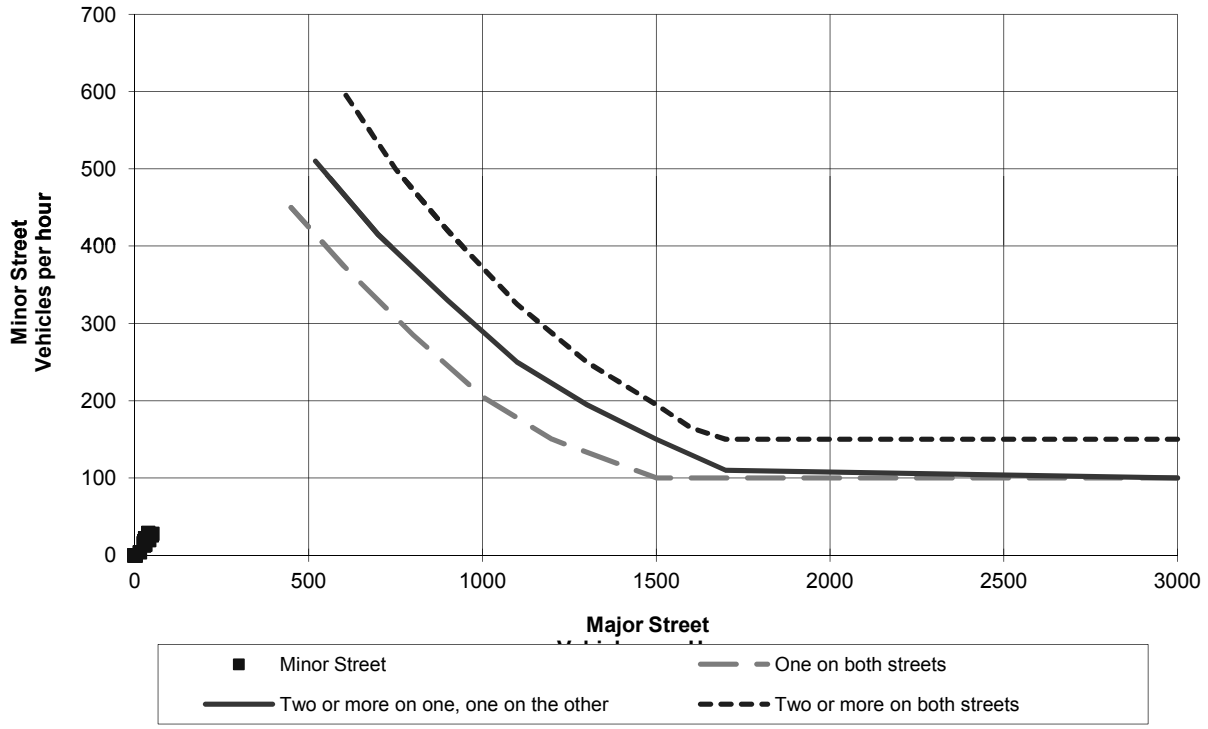
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Spruce Street and Hewitt Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**
(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 29 Pine Street and Hewitt Avenue

Major Street: Pine Street Minor Street: Hewitt Avenue

Intersection: Pine Street and Hewitt Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/2/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	17	14	6	8	31	8	45
07:00 - 08:00	26	36	12	31	62	31	105
08:00 - 09:00	31	30	20	23	61	23	104
09:00 - 10:00	25	22	13	15	47	15	75
10:00 - 11:00	23	23	24	15	46	24	85
11:00 - 12:00	30	35	17	26	65	26	108
12:00 - 13:00	44	47	29	23	91	29	143
13:00 - 14:00	43	40	26	25	83	26	134
14:00 - 15:00	45	46	31	32	91	32	154
15:00 - 16:00	42	53	37	25	95	37	157
16:00 - 17:00	53	62	34	33	115	34	182
17:00 - 18:00	71	66	38	30	137	38	205
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**450**	**474**	**287**	**286**	**924**	**323**	**1497**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	31	8	No
07:00 - 08:00	62	31	No
08:00 - 09:00	61	23	No
09:00 - 10:00	47	15	No
10:00 - 11:00	46	24	No
11:00 - 12:00	65	26	No
12:00 - 13:00	91	29	No
13:00 - 14:00	83	26	No
14:00 - 15:00	91	32	No
15:00 - 16:00	95	37	No
16:00 - 17:00	115	34	No
17:00 - 18:00	137	38	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

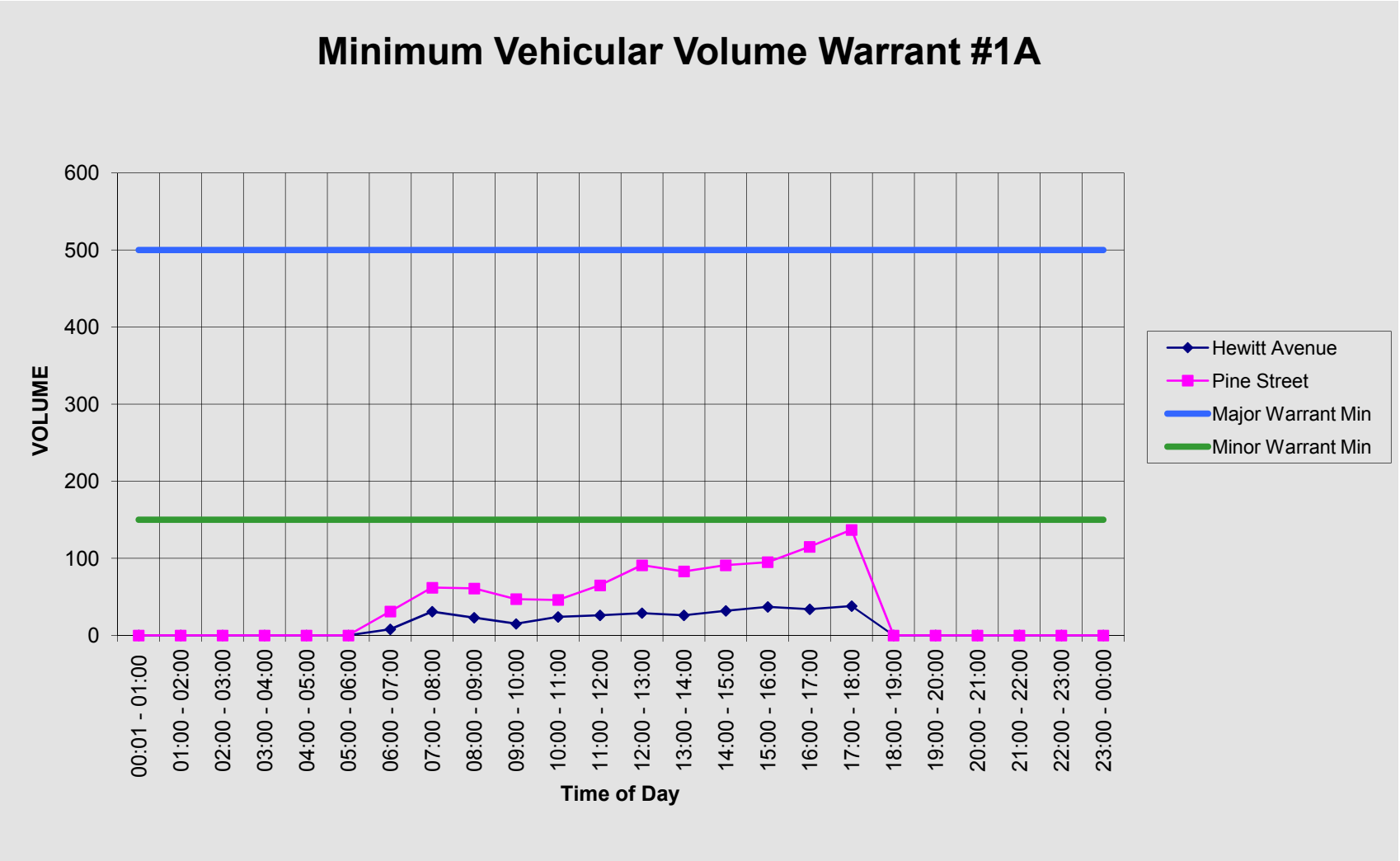
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Pine Street and Hewitt Avenue
Spot Number: 29 Pine Street and Hewitt Avenue

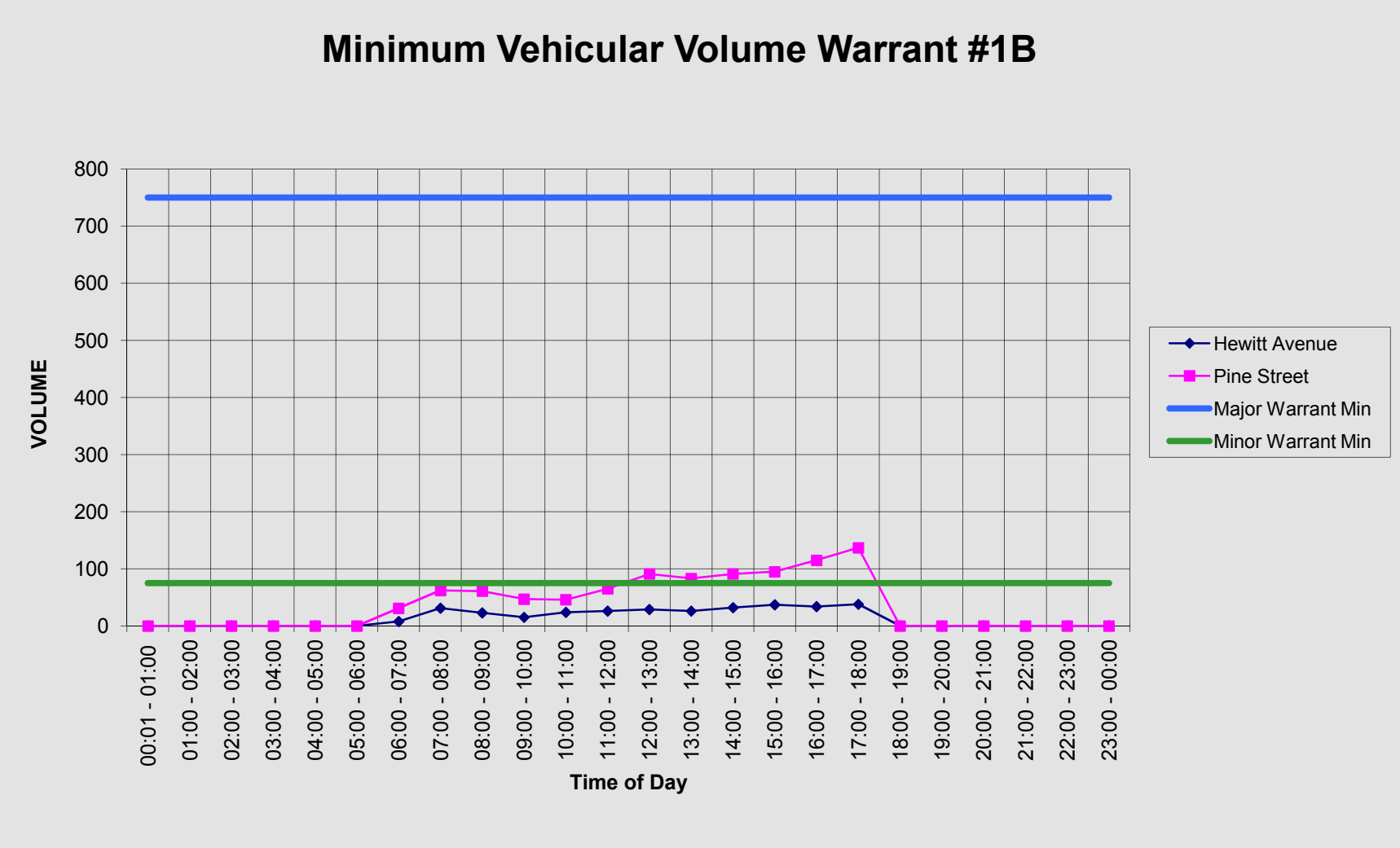
Major Street: Pine Street
Minor Street: Hewitt Avenue
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Pine Street and Hewitt Avenue
Spot Number: 29 Pine Street and Hewitt Avenue

Major Street: Pine Street
Minor Street: Hewitt Avenue
Date of Survey: 10/02/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette

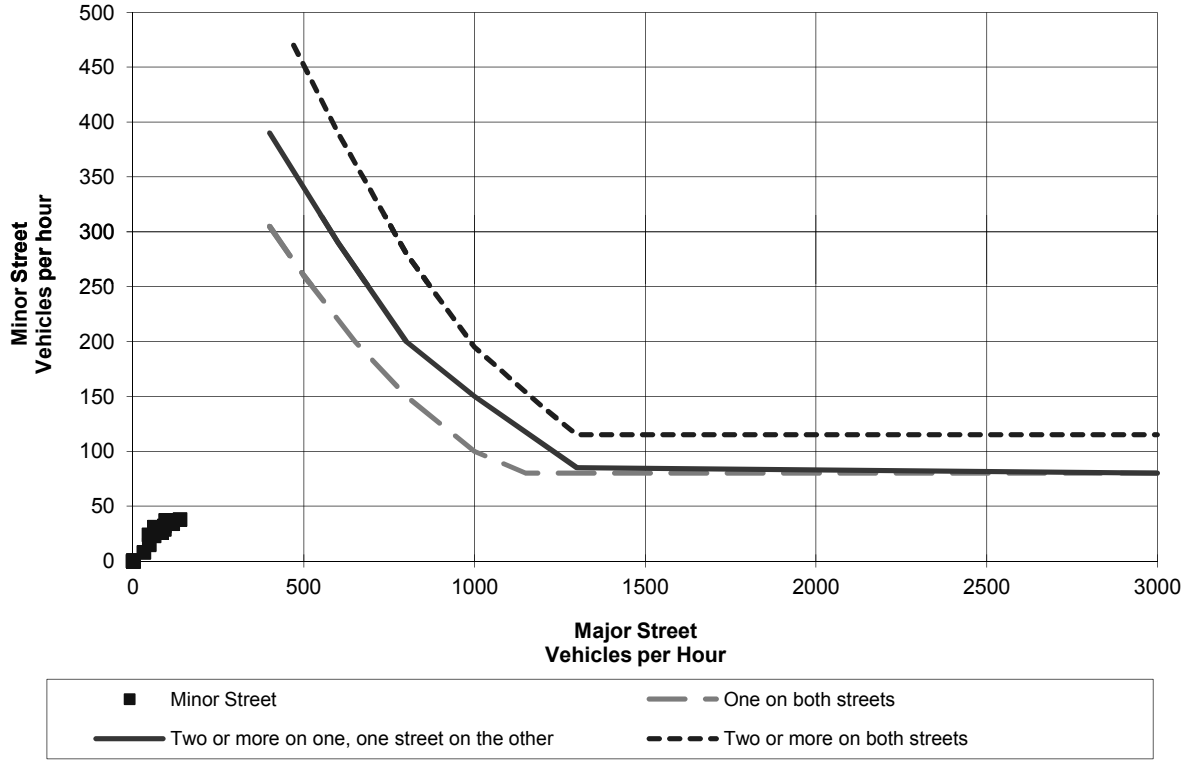
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 38 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette

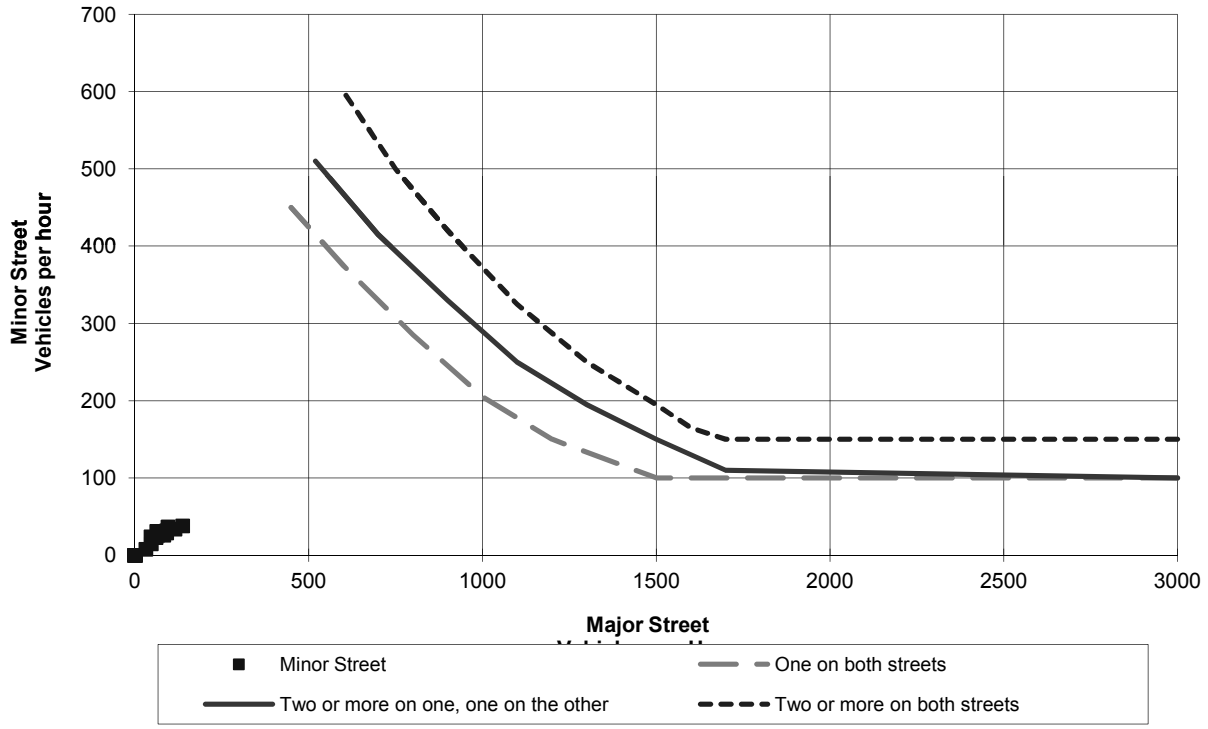
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Hewitt Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 32 Fouth Street and Hewitt Avenue

Major Street: Fourth Street Minor Street: Hewitt Avenue

Intersection: Fourth Street and Hewitt Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	61	141	8	9	202	9	219
07:00 - 08:00	195	237	28	17	432	28	477
08:00 - 09:00	157	201	37	23	358	37	418
09:00 - 10:00	186	189	40	38	375	40	453
10:00 - 11:00	187	155	39	23	342	39	404
11:00 - 12:00	237	198	31	30	435	31	496
12:00 - 13:00	284	250	45	29	534	45	608
13:00 - 14:00	307	238	46	27	545	46	618
14:00 - 15:00	360	260	52	38	620	52	710
15:00 - 16:00	381	232	53	55	613	55	721
16:00 - 17:00	380	256	61	36	636	61	733
17:00 - 18:00	392	254	61	48	646	61	755
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3127**	**2611**	**501**	**373**	**5738**	**504**	**6612**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	202	9	No
07:00 - 08:00	432	28	No
08:00 - 09:00	358	37	No
09:00 - 10:00	375	40	No
10:00 - 11:00	342	39	No
11:00 - 12:00	435	31	No
12:00 - 13:00	534	45	No
13:00 - 14:00	545	46	No
14:00 - 15:00	620	52	No
15:00 - 16:00	613	55	No
16:00 - 17:00	636	61	No
17:00 - 18:00	646	61	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

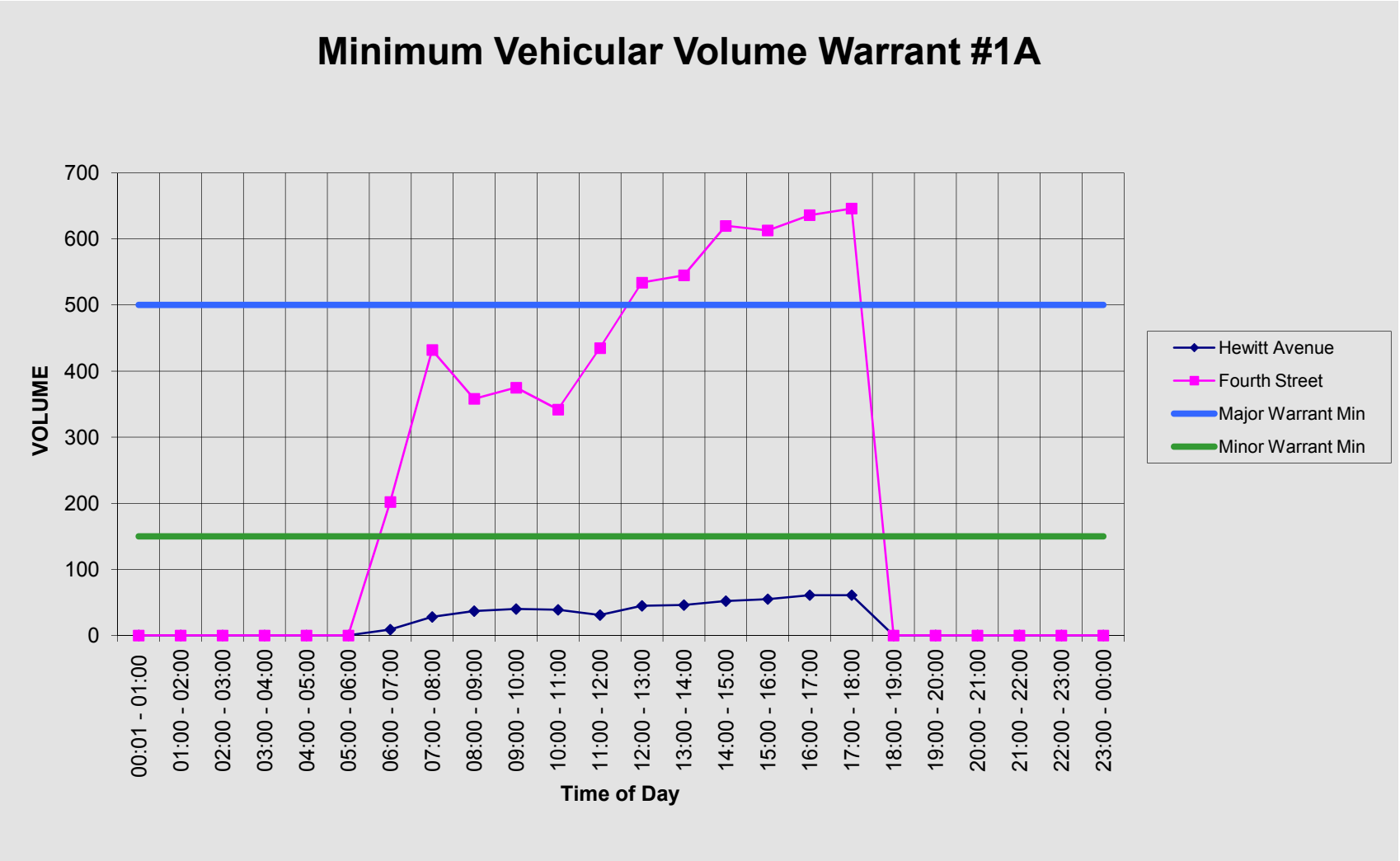
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Fourth Street and Hewitt Avenue
Spot Number: 32 Fouth Street and Hewitt Avenue

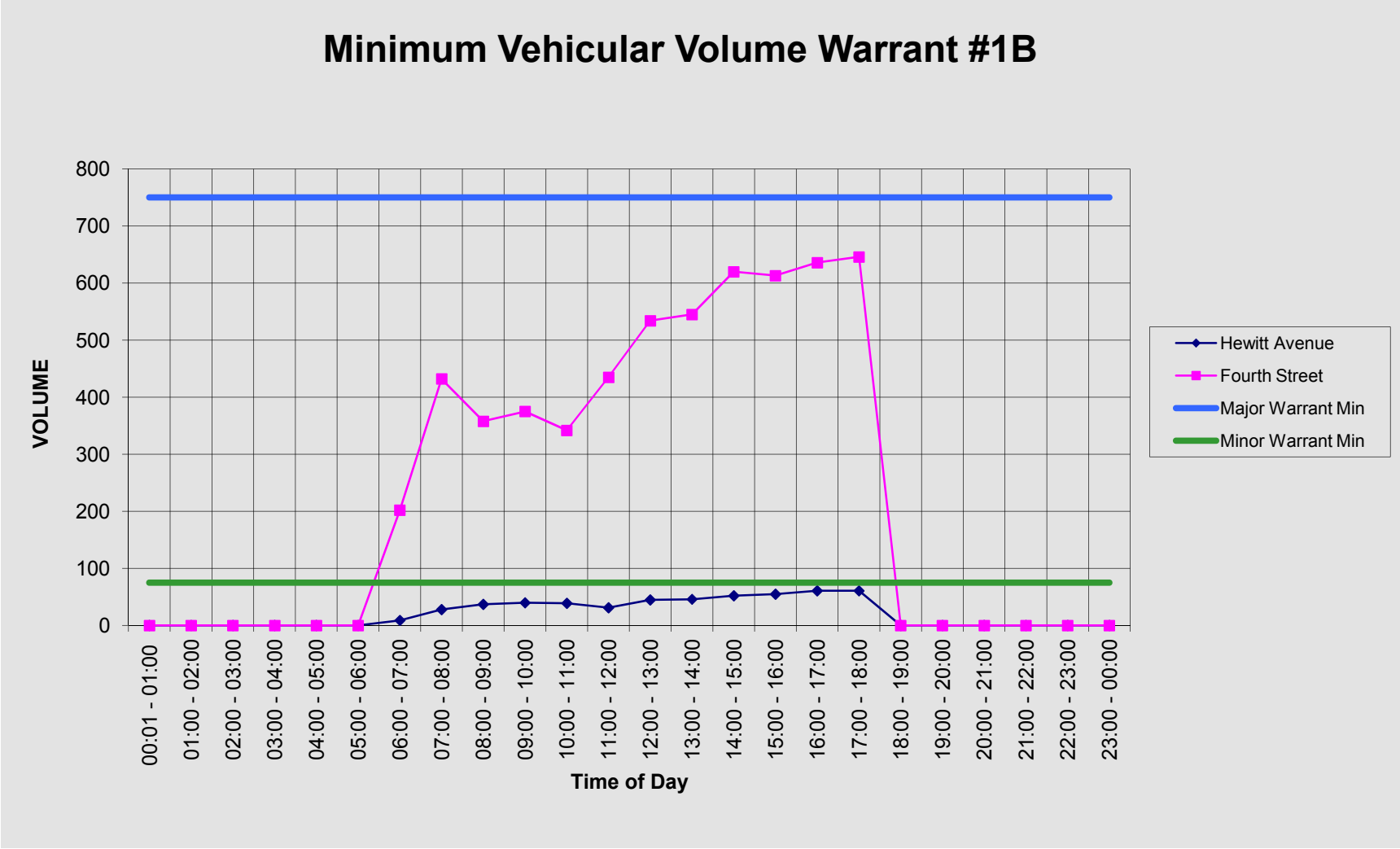
Major Street: Fourth Street
Minor Street: Hewitt Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Fourth Street and Hewitt Avenue
Spot Number: 32 Fouth Street and Hewitt Avenue

Major Street: Fourth Street
Minor Street: Hewitt Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette

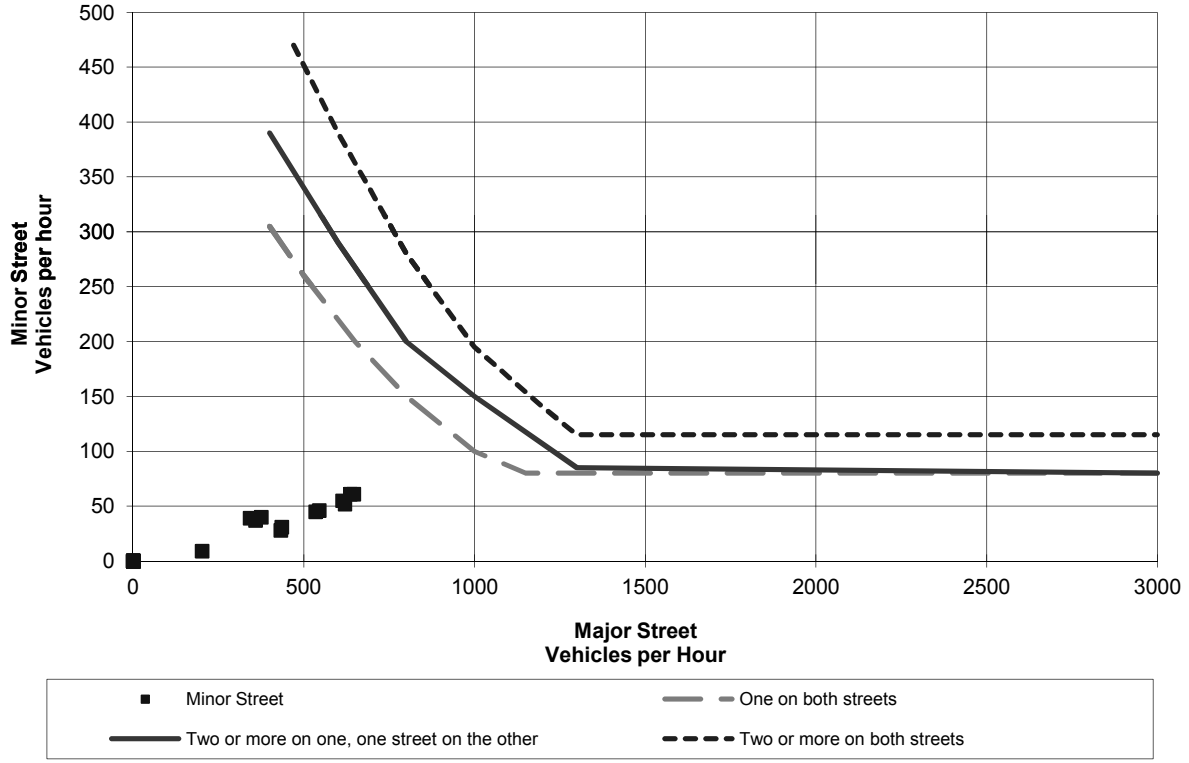
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 61 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette

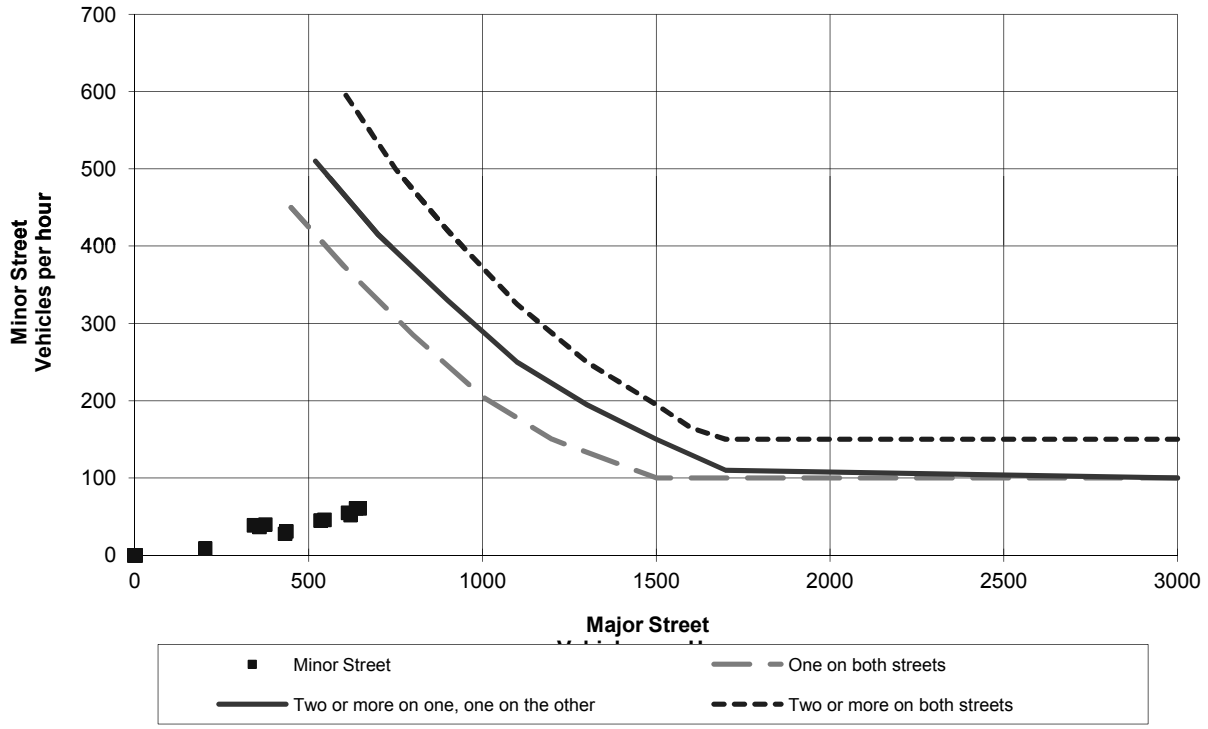
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Hewitt Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 33 Front Street and Arch Street

Major Street: Front Street Minor Street: Arch Street

Intersection: Front Street and Arch Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	33	63	17	2	96	17	115
07:00 - 08:00	96	124	50	16	220	50	286
08:00 - 09:00	93	140	44	14	233	44	291
09:00 - 10:00	78	120	40	21	198	40	259
10:00 - 11:00	92	111	42	22	203	42	267
11:00 - 12:00	101	144	48	38	245	48	331
12:00 - 13:00	122	168	68	43	290	68	401
13:00 - 14:00	133	158	63	39	291	63	393
14:00 - 15:00	123	162	47	42	285	47	374
15:00 - 16:00	122	161	49	46	283	49	378
16:00 - 17:00	147	221	73	42	368	73	483
17:00 - 18:00	188	223	58	41	411	58	510
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1328**	**1795**	**599**	**366**	**3123**	**599**	**4088**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	96	17	No
07:00 - 08:00	220	50	No
08:00 - 09:00	233	44	No
09:00 - 10:00	198	40	No
10:00 - 11:00	203	42	No
11:00 - 12:00	245	48	No
12:00 - 13:00	290	68	No
13:00 - 14:00	291	63	No
14:00 - 15:00	285	47	No
15:00 - 16:00	283	49	No
16:00 - 17:00	368	73	No
17:00 - 18:00	411	58	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

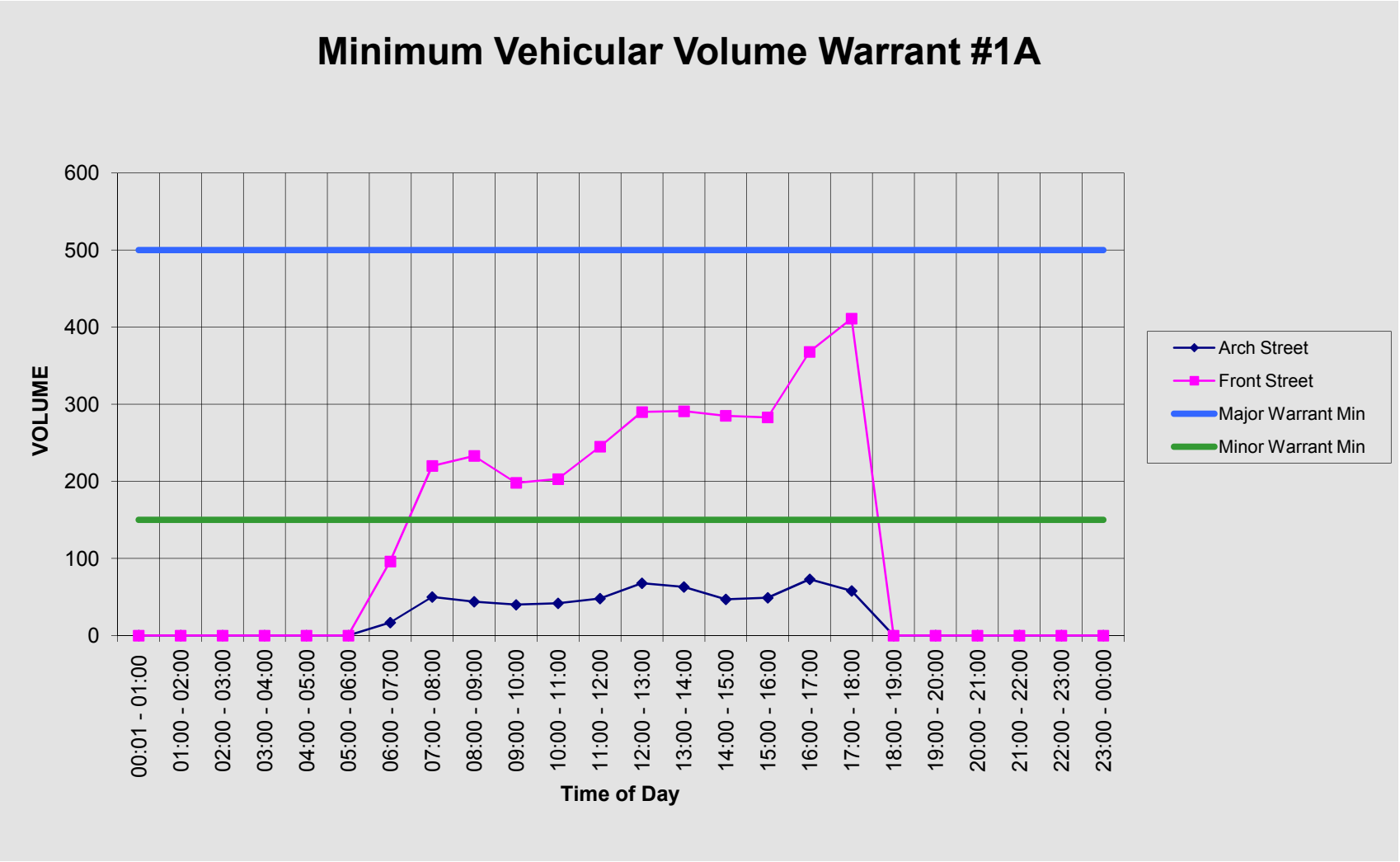
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Front Street and Arch Street
Spot Number: 33 Front Street and Arch Street

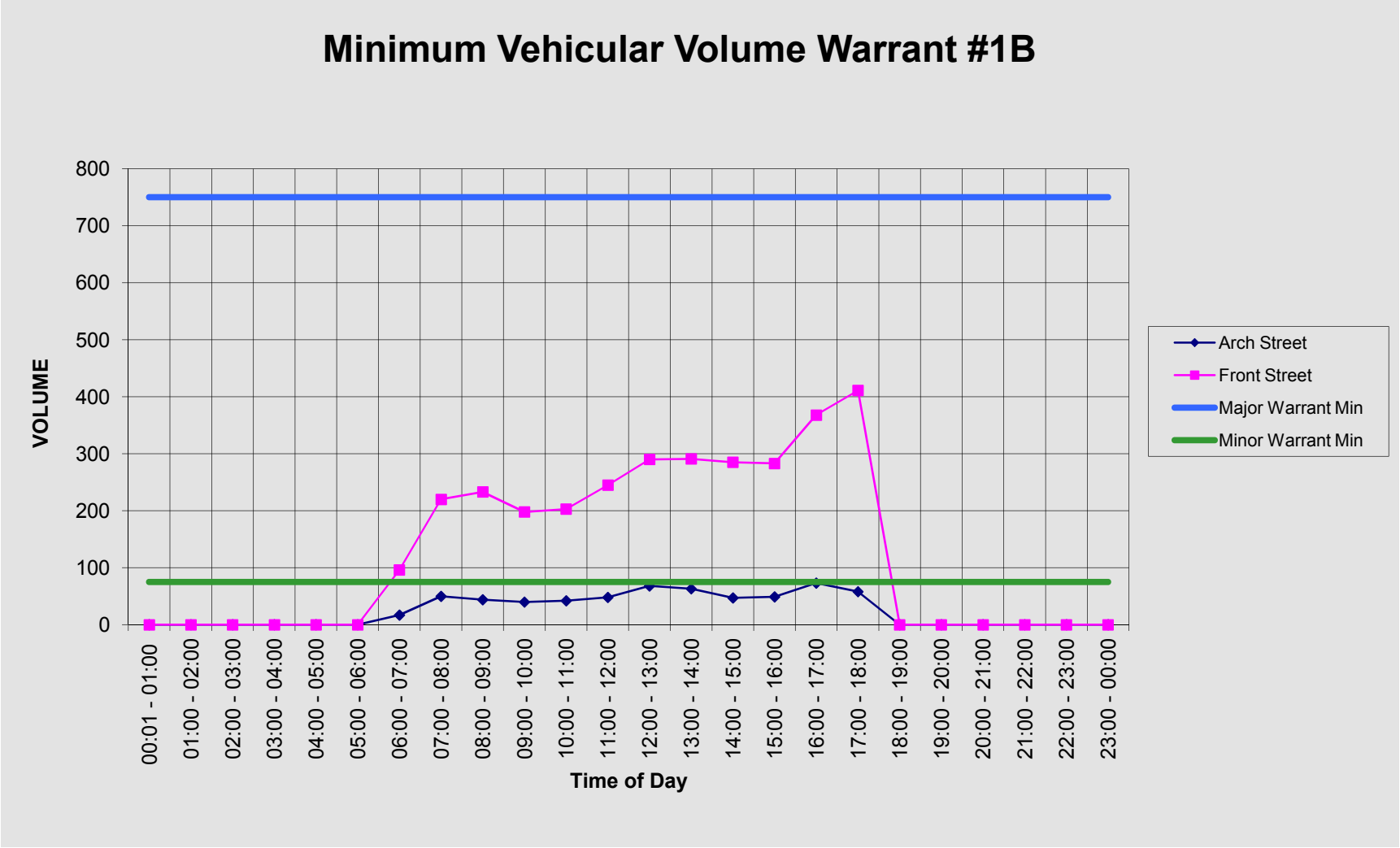
Major Street: Front Street
Minor Street: Arch Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Front Street and Arch Street
Spot Number: 33 Front Street and Arch Street

Major Street: Front Street
Minor Street: Arch Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette

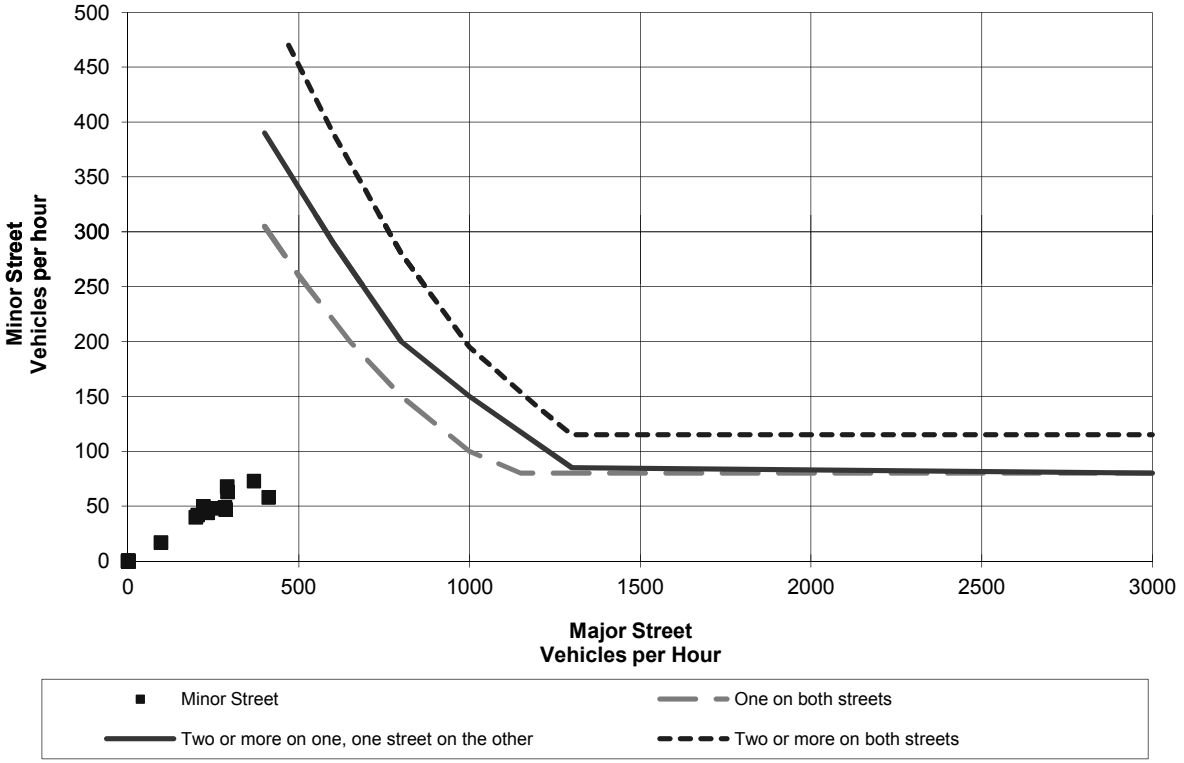
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.2

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 73 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette

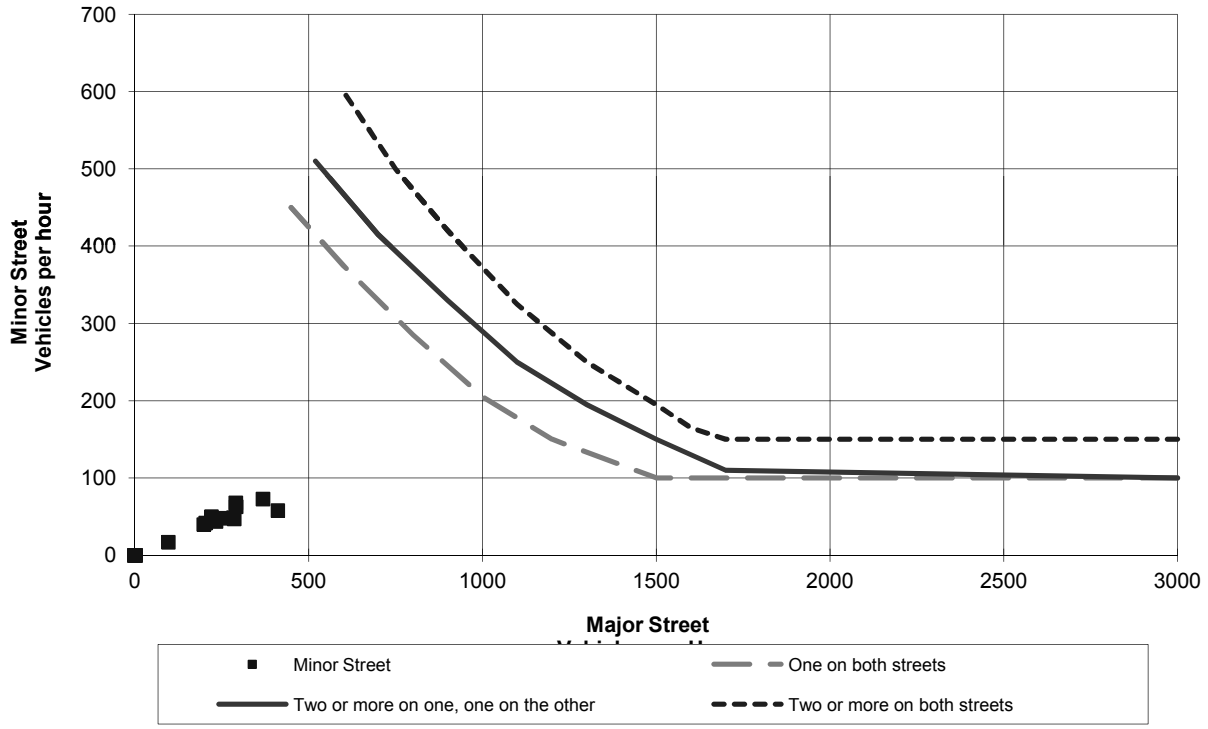
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? No **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Arch Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 34 Pine Street and Ridge Street

Major Street: Ridge Street Minor Street: Pine Street

Intersection: Pine Street and Ridge Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major WB	Major EB	Minor SB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	8	9	10	0	17	10	27
07:00 - 08:00	32	34	11	0	66	11	77
08:00 - 09:00	20	38	11	0	58	11	69
09:00 - 10:00	36	39	15	0	75	15	90
10:00 - 11:00	29	47	28	0	76	28	104
11:00 - 12:00	31	55	25	0	86	25	111
12:00 - 13:00	42	82	20	0	124	20	144
13:00 - 14:00	45	73	25	0	118	25	143
14:00 - 15:00	48	85	30	0	133	30	163
15:00 - 16:00	46	73	19	0	119	19	138
16:00 - 17:00	50	91	36	0	141	36	177
17:00 - 18:00	51	133	51	0	184	51	235
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**438**	**759**	**281**	**0**	**1197**	**281**	**1478**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	17	10	No
07:00 - 08:00	66	11	No
08:00 - 09:00	58	11	No
09:00 - 10:00	75	15	No
10:00 - 11:00	76	28	No
11:00 - 12:00	86	25	No
12:00 - 13:00	124	20	No
13:00 - 14:00	118	25	No
14:00 - 15:00	133	30	No
15:00 - 16:00	119	19	No
16:00 - 17:00	141	36	No
17:00 - 18:00	184	51	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

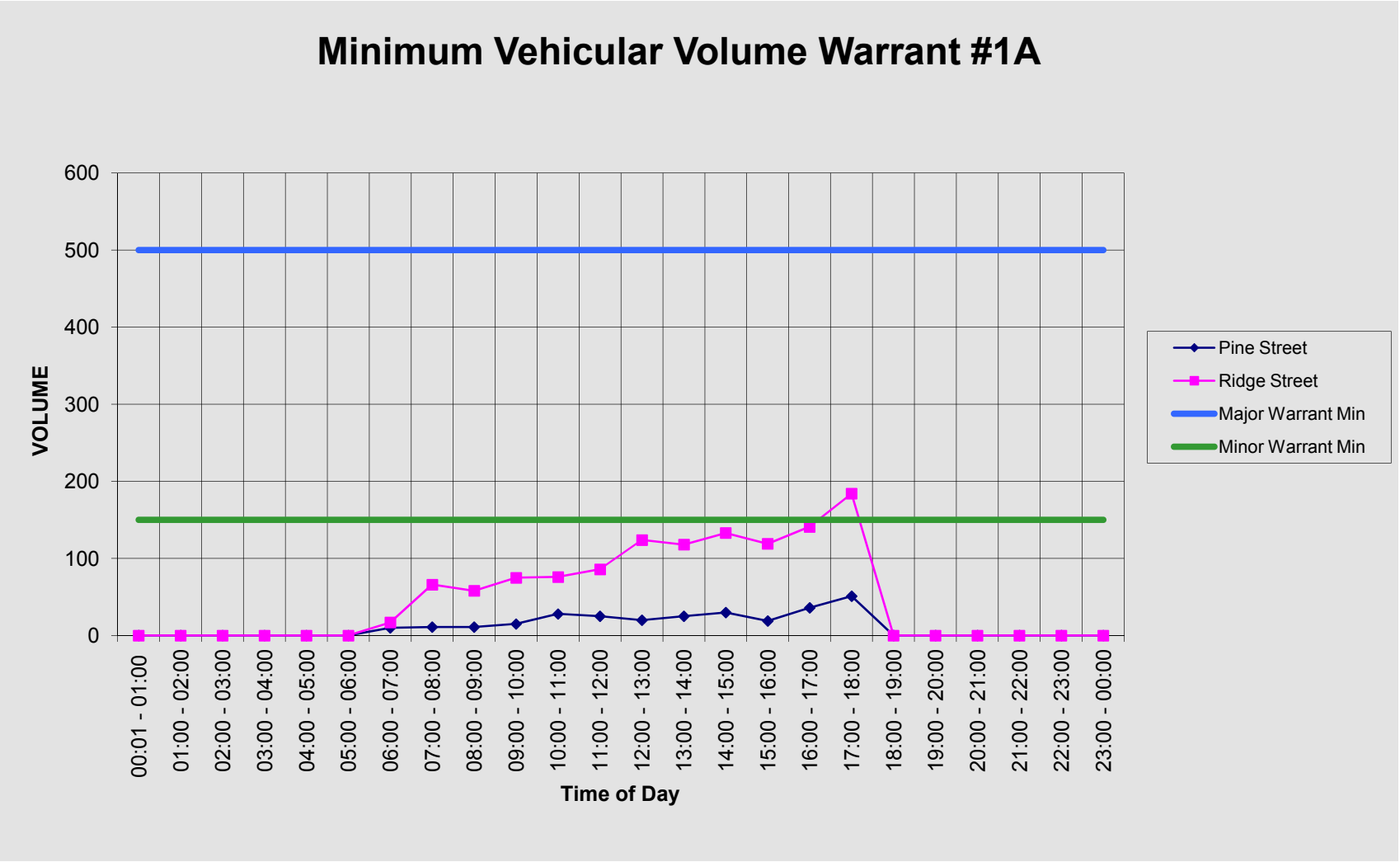
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Pine Street and Ridge Street
Spot Number: 34 Pine Street and Ridge Street

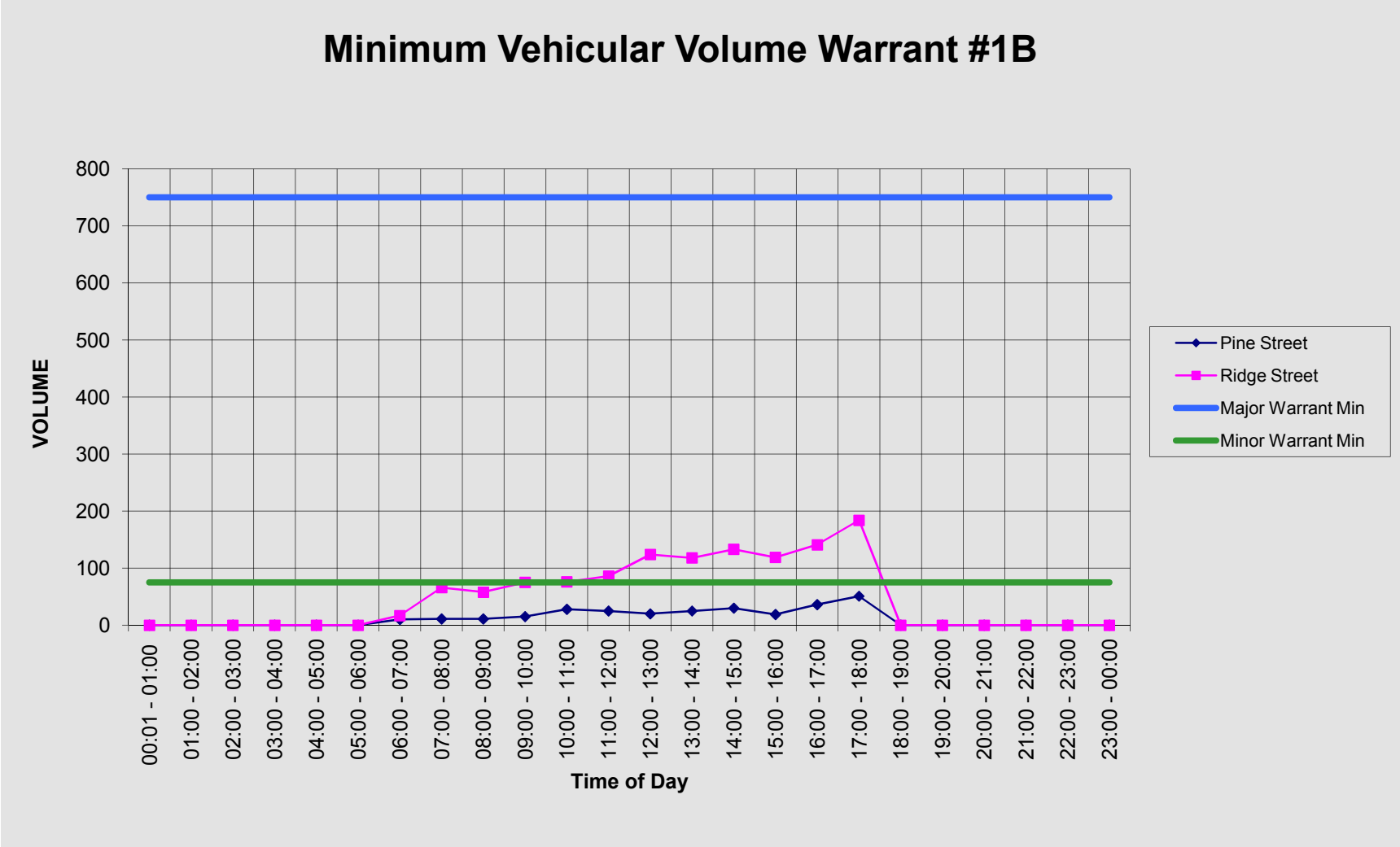
Major Street: Ridge Street
Minor Street: Pine Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Pine Street and Ridge Street
Spot Number: 34 Pine Street and Ridge Street

Major Street: Ridge Street
Minor Street: Pine Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette

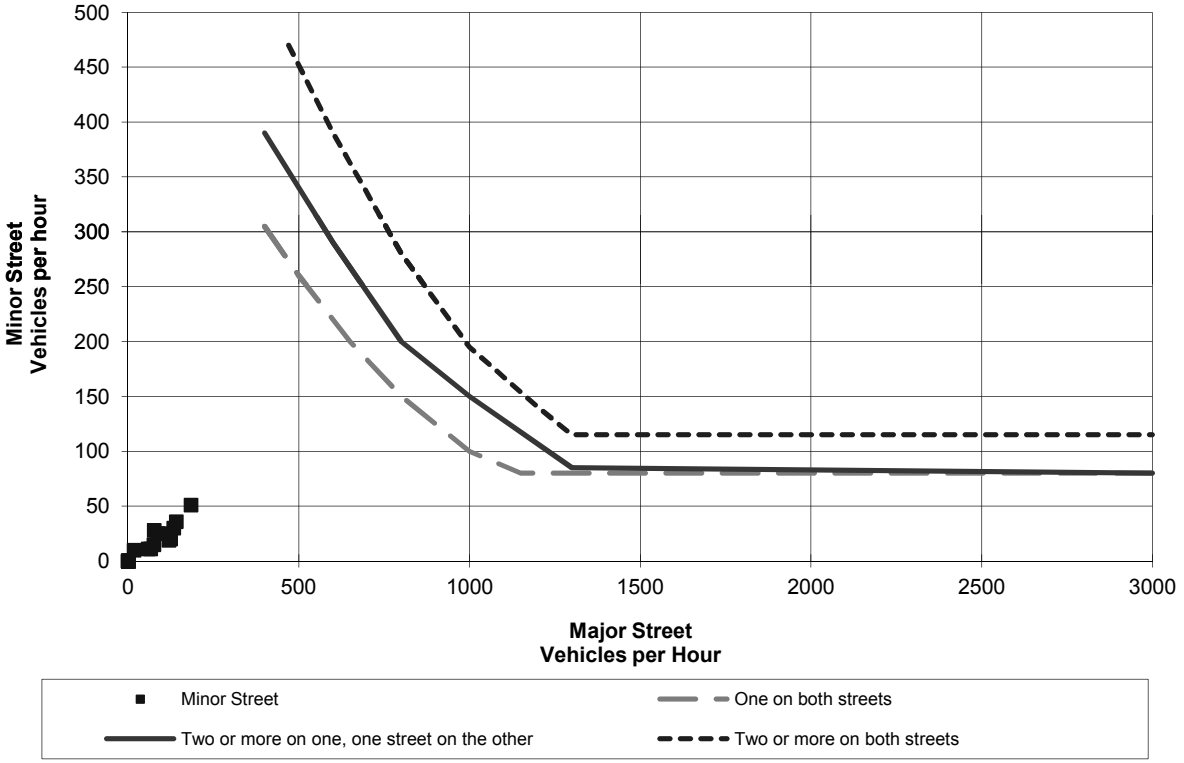
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 51 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette

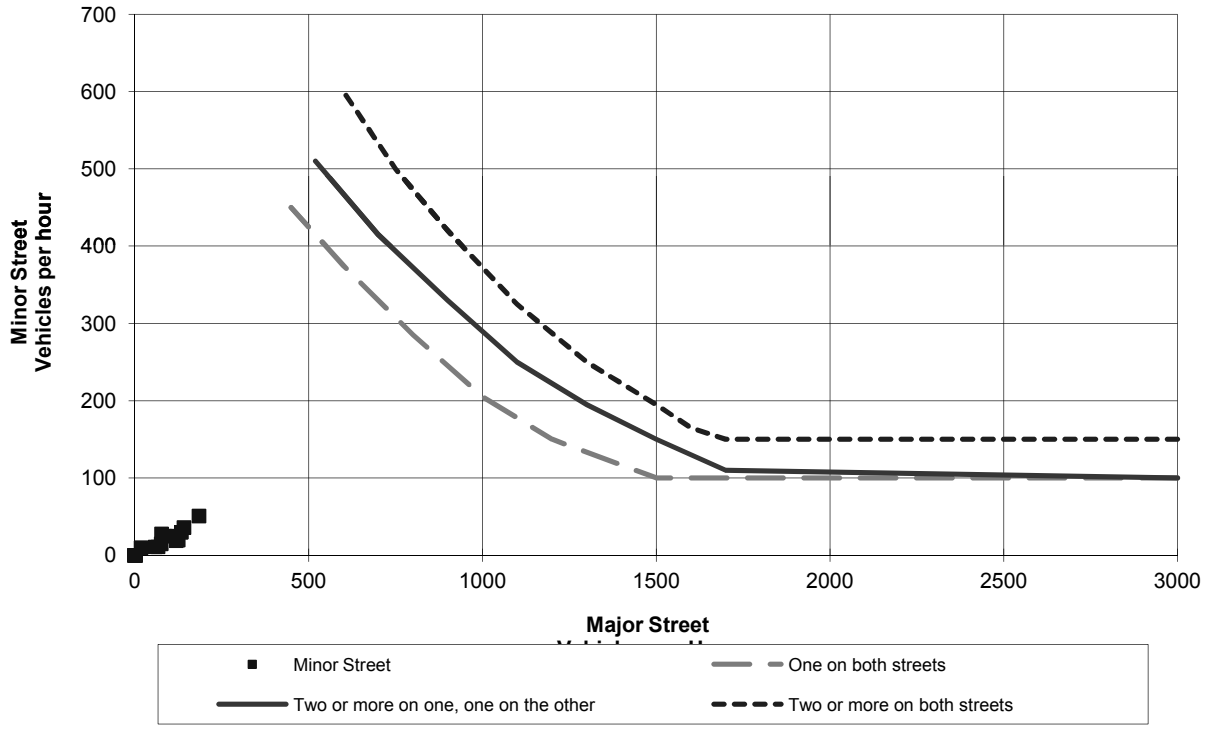
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pine Street and Ridge Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: _____

Major Street: _____ Minor Street: _____

Intersection: _____

City: Marquette

Date Performed: _____ Performed By: KMM

Date Volumes Collected: _____

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	25	63	2	0	88	2	90
07:00 - 08:00	82	128	0	0	210	0	210
08:00 - 09:00	88	147	4	0	235	4	239
09:00 - 10:00	85	122	4	0	207	4	211
10:00 - 11:00	100	112	7	1	212	7	220
11:00 - 12:00	141	127	10	0	268	10	278
12:00 - 13:00	168	154	7	0	322	7	329
13:00 - 14:00	173	164	10	0	337	10	347
14:00 - 15:00	189	153	13	0	342	13	355
15:00 - 16:00	197	174	18	0	371	18	389
16:00 - 17:00	245	176	11	0	421	11	432
17:00 - 18:00	239	166	14	0	405	14	419
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1732**	**1686**	**100**	**1**	**3418**	**100**	**3519**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette
Date 1/0/1900 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

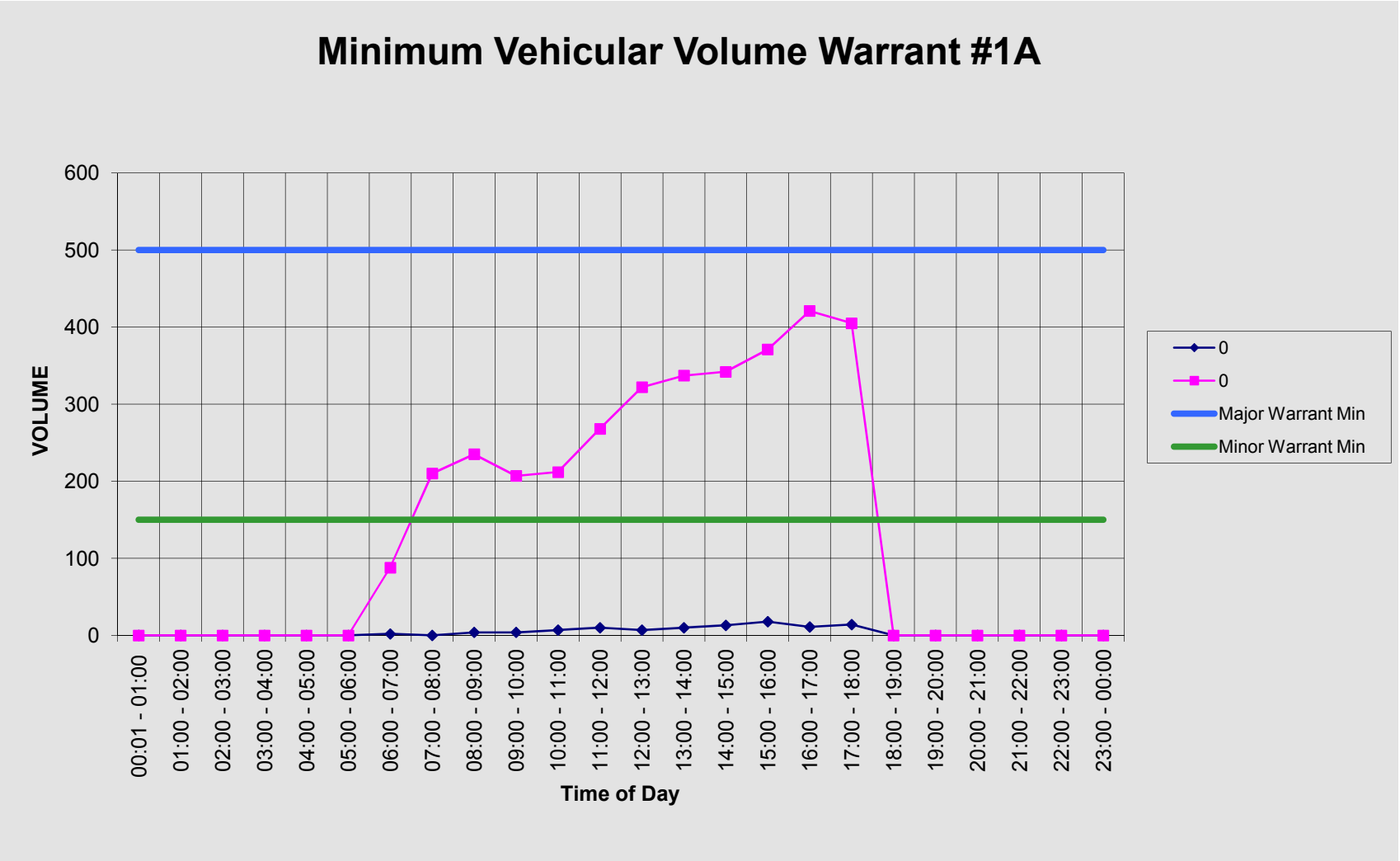
Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	88	2	No
07:00 - 08:00	210	0	No
08:00 - 09:00	235	4	No
09:00 - 10:00	207	4	No
10:00 - 11:00	212	7	No
11:00 - 12:00	268	10	No
12:00 - 13:00	322	7	No
13:00 - 14:00	337	10	No
14:00 - 15:00	342	13	No
15:00 - 16:00	371	18	No
16:00 - 17:00	421	11	No
17:00 - 18:00	405	14	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

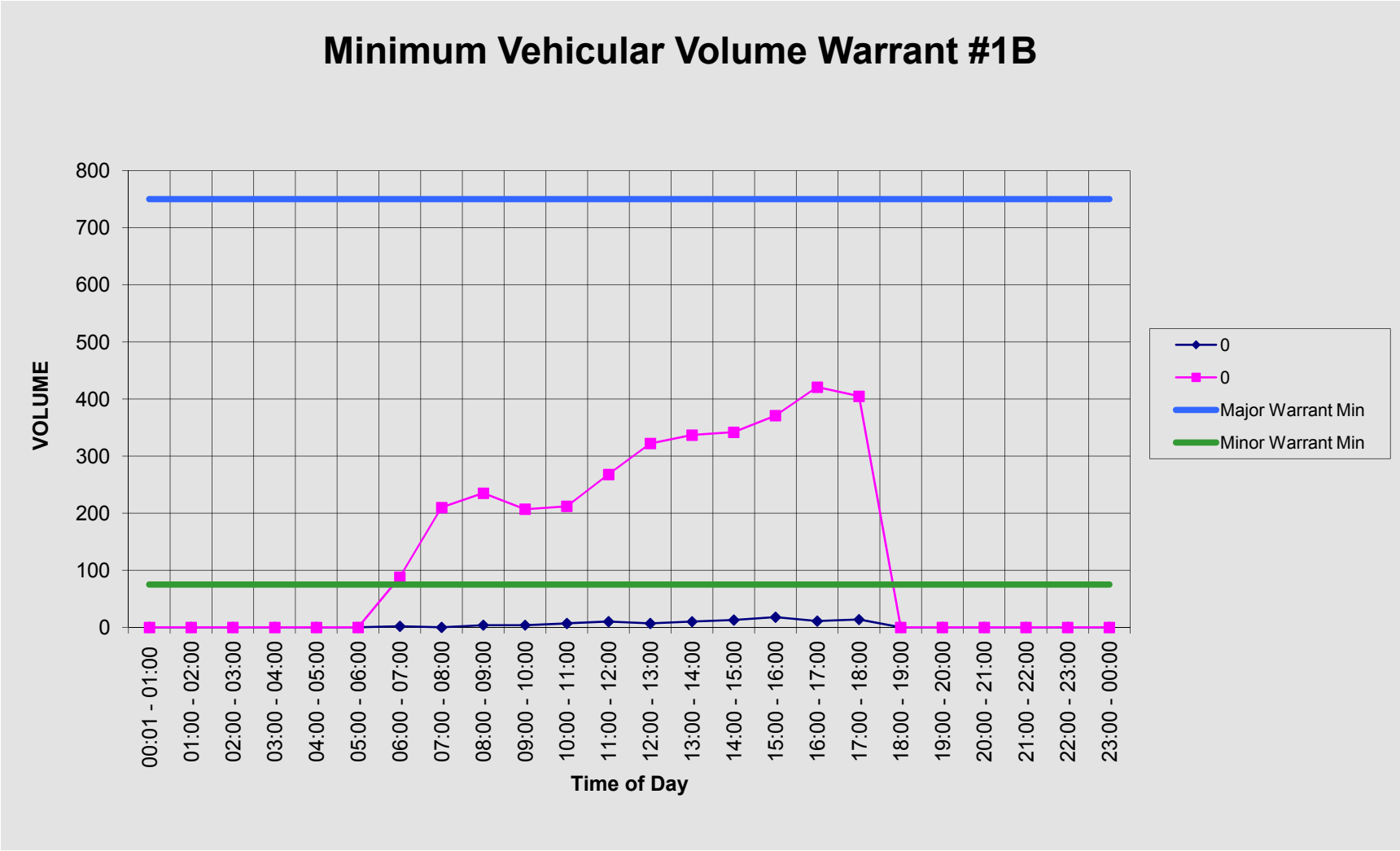
A. Is the Minimum Vehicular Volume Warrant Met? No
B. Is the Interruption of Continuous Traffic Met? No
Combination of Warrants A and B Criteria Met? No
(Use only when Conditions A and B are both not satisfied)

Type of Warrant:	MINIMUM VEHICULAR VOLUME - WARRANT #1A	**Major Street:**	0
Intersection:	0	**Minor Street:**	0
Spot Number:	0	**Date of Survey:**	01/00/00



NUMBER OF HOURS MET: 0

Type of Warrant:	INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B	**Major Street:**	0
Intersection:	0	**Minor Street:**	0
Spot Number:	0	**Date of Survey:**	01/00/00



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

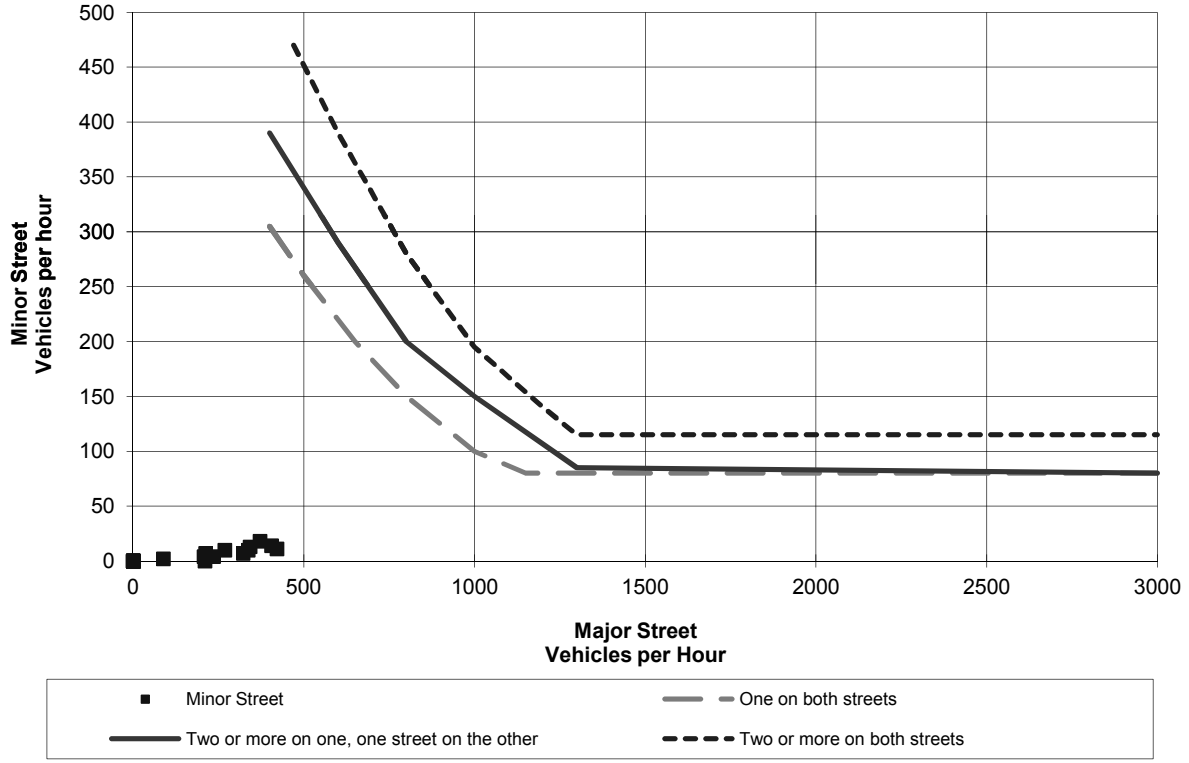
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 18 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 15:00 - 16:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

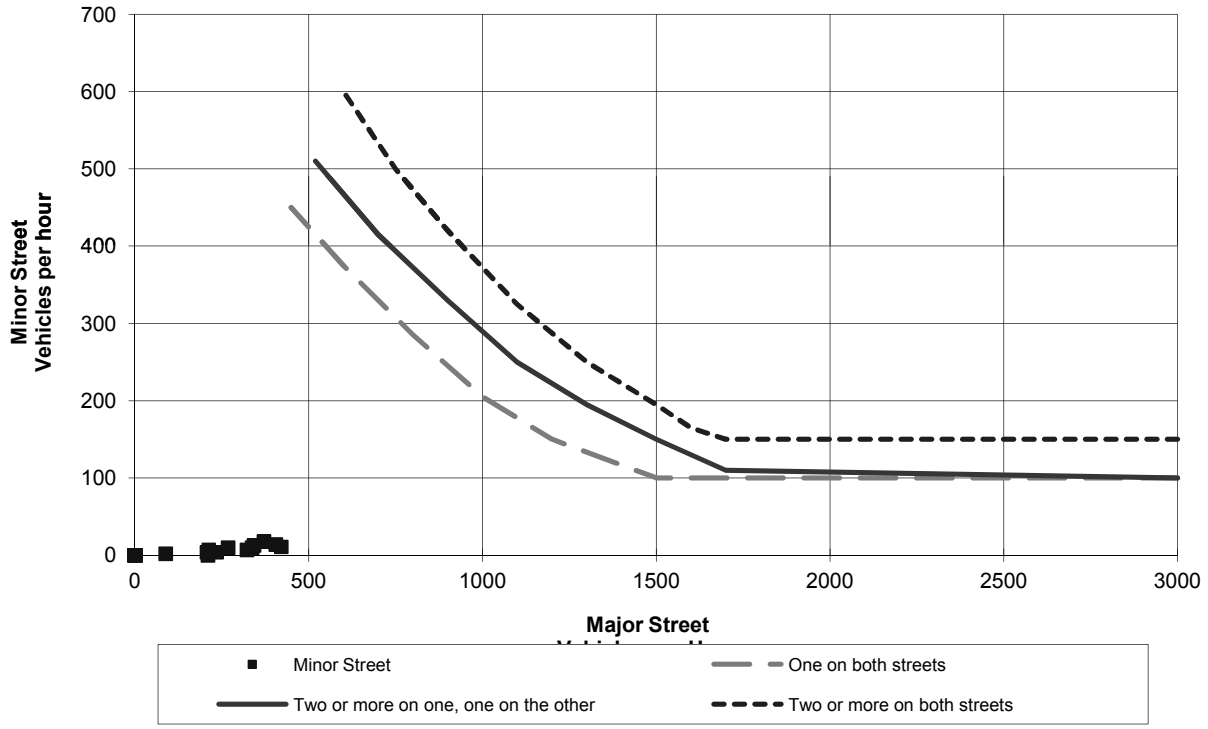
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 36 Lakeshore Blvd and Baraga Avenue

Major Street: Lakeshore Blvd Minor Street: Baraga Avenue

Intersection: Lakeshore Blvd and Baraga Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	22	52	0	30	74	30	104
07:00 - 08:00	58	97	0	62	155	62	217
08:00 - 09:00	64	84	1	84	148	84	233
09:00 - 10:00	62	78	4	57	140	57	201
10:00 - 11:00	86	81	4	55	167	55	226
11:00 - 12:00	95	73	9	63	168	63	240
12:00 - 13:00	129	105	13	87	234	87	334
13:00 - 14:00	111	101	9	76	212	76	297
14:00 - 15:00	129	86	6	87	215	87	308
15:00 - 16:00	154	102	12	98	256	98	366
16:00 - 17:00	199	107	13	103	306	103	422
17:00 - 18:00	178	91	7	111	269	111	387
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1287**	**1057**	**78**	**913**	**2344**	**913**	**3335**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	74	30	No
07:00 - 08:00	155	62	No
08:00 - 09:00	148	84	No
09:00 - 10:00	140	57	No
10:00 - 11:00	167	55	No
11:00 - 12:00	168	63	No
12:00 - 13:00	234	87	No
13:00 - 14:00	212	76	No
14:00 - 15:00	215	87	No
15:00 - 16:00	256	98	No
16:00 - 17:00	306	103	No
17:00 - 18:00	269	111	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

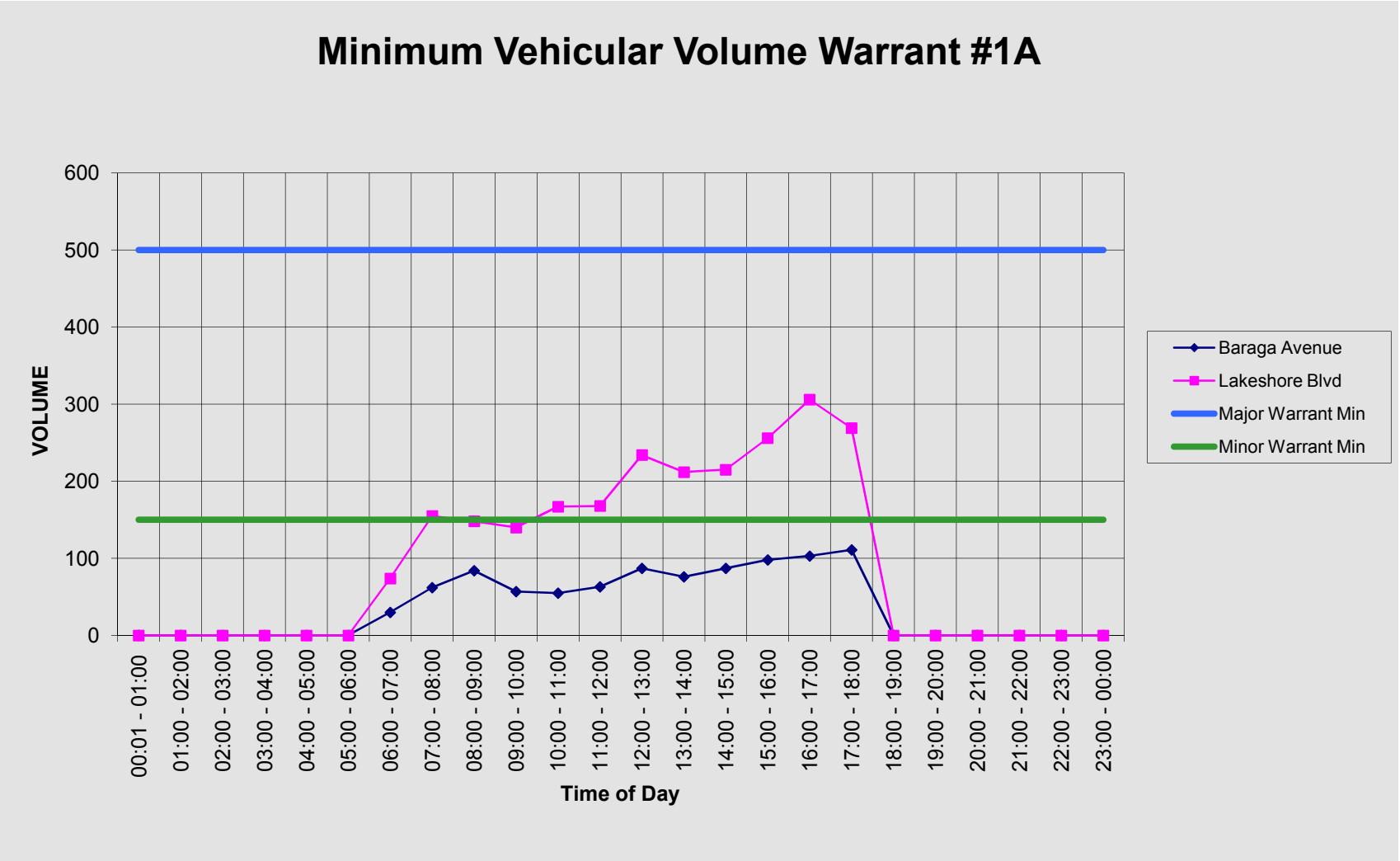
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lakeshore Blvd and Baraga Avenue
Spot Number: 36 Lakeshore Blvd and Baraga Avenue

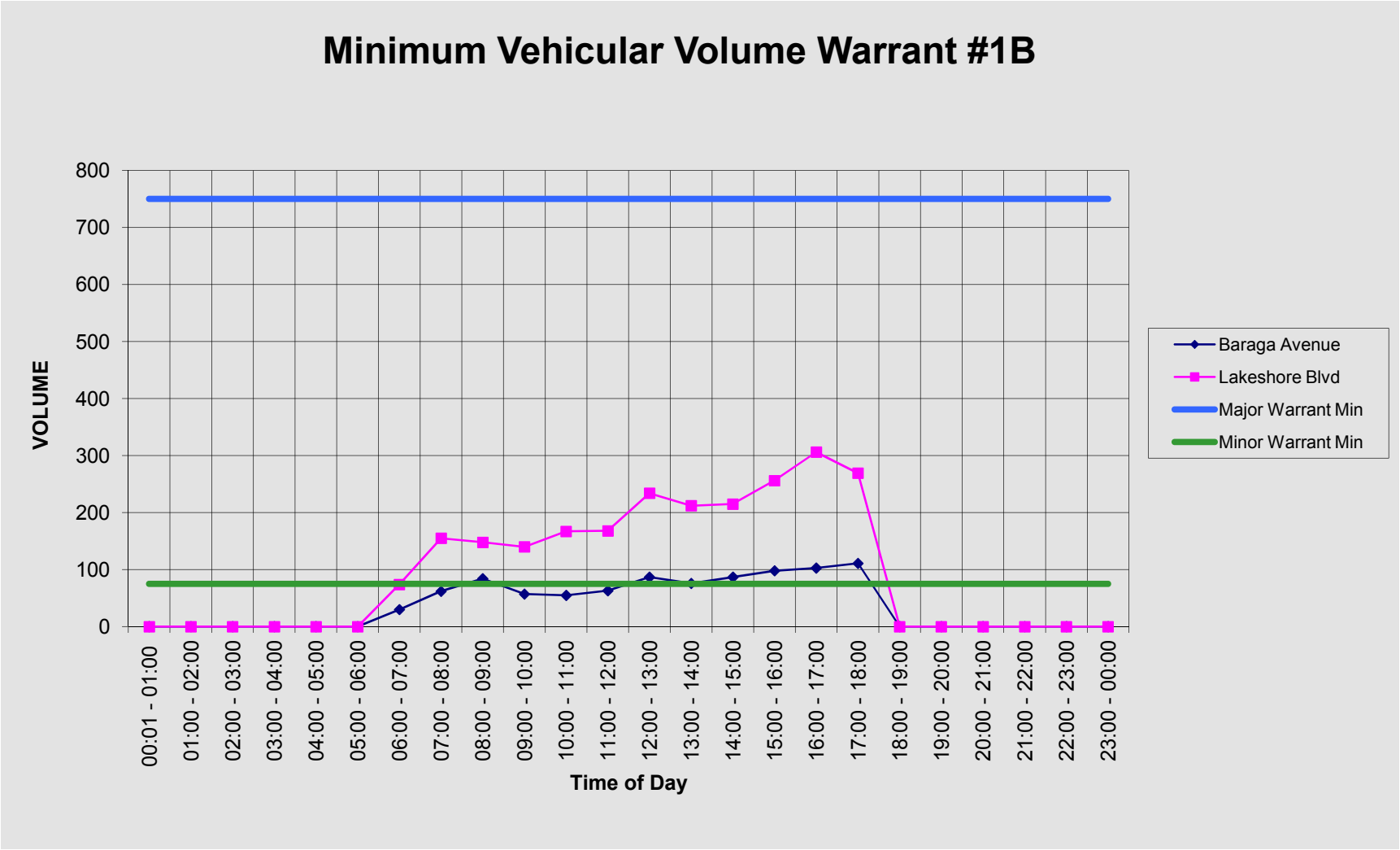
Major Street: Lakeshore Blvd
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lakeshore Blvd and Baraga Avenue
Spot Number: 36 Lakeshore Blvd and Baraga Avenue

Major Street: Lakeshore Blvd
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette

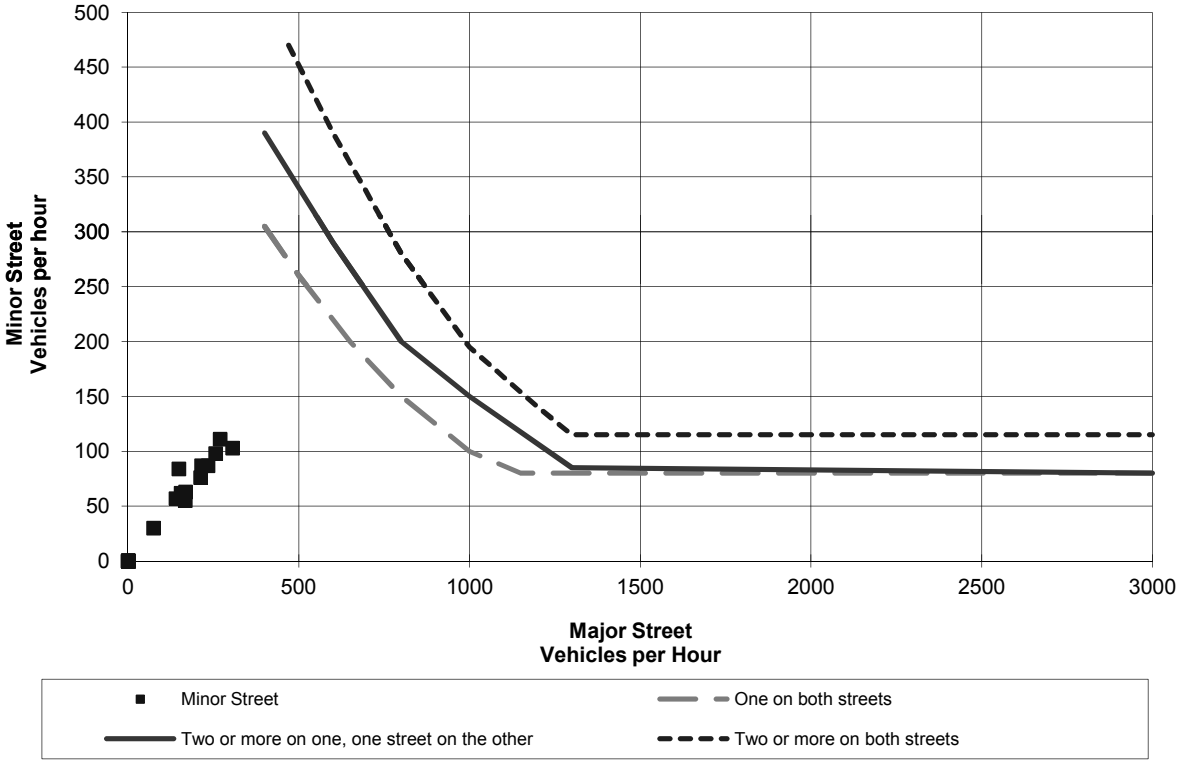
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 111 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette

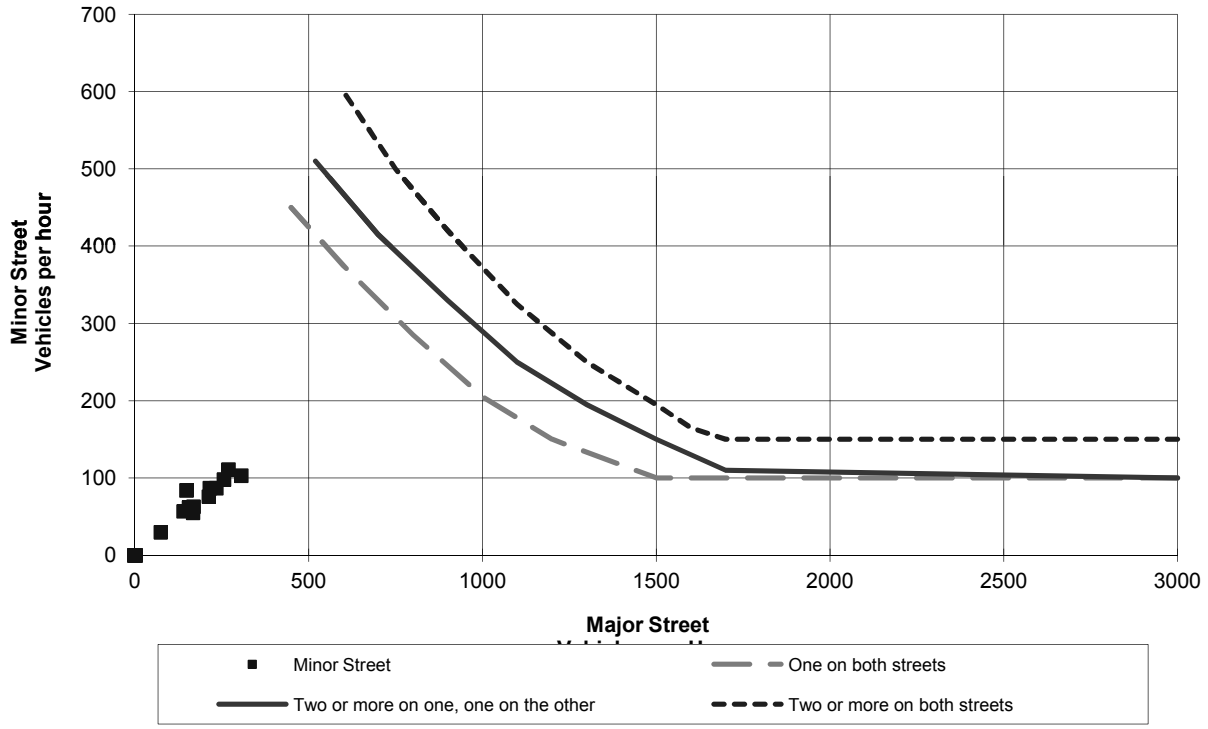
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? No **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Baraga Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 37 Front Street and Baraga Avenue

Major Street: Front Street Minor Street: Baraga Avenue

Intersection: Front Street and Baraga Avenue

City: Marquette

Date Performed: 4/10/2014 Performed By: KMM

Date Volumes Collected: 2030 Volumes

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	85	265	15	20	350	20	385
07:00 - 08:00	200	465	30	55	665	55	750
08:00 - 09:00	170	515	40	50	685	50	775
09:00 - 10:00	190	425	30	65	615	65	710
10:00 - 11:00	230	375	45	90	605	90	740
11:00 - 12:00	245	385	40	85	630	85	755
12:00 - 13:00	305	465	50	120	770	120	940
13:00 - 14:00	330	445	35	115	775	115	925
14:00 - 15:00	325	430	40	120	755	120	915
15:00 - 16:00	330	425	50	125	755	125	930
16:00 - 17:00	460	545	50	160	1005	160	1215
17:00 - 18:00	465	540	70	185	1005	185	1260
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3335**	**5280**	**495**	**1190**	**8615**	**1190**	**10300**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette
Date 4/10/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	350	20	No
07:00 - 08:00	665	55	No
08:00 - 09:00	685	50	No
09:00 - 10:00	615	65	No
10:00 - 11:00	605	90	No
11:00 - 12:00	630	85	No
12:00 - 13:00	770	120	No
13:00 - 14:00	775	115	No
14:00 - 15:00	755	120	No
15:00 - 16:00	755	125	No
16:00 - 17:00	1005	160	Yes
17:00 - 18:00	1005	185	Yes
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

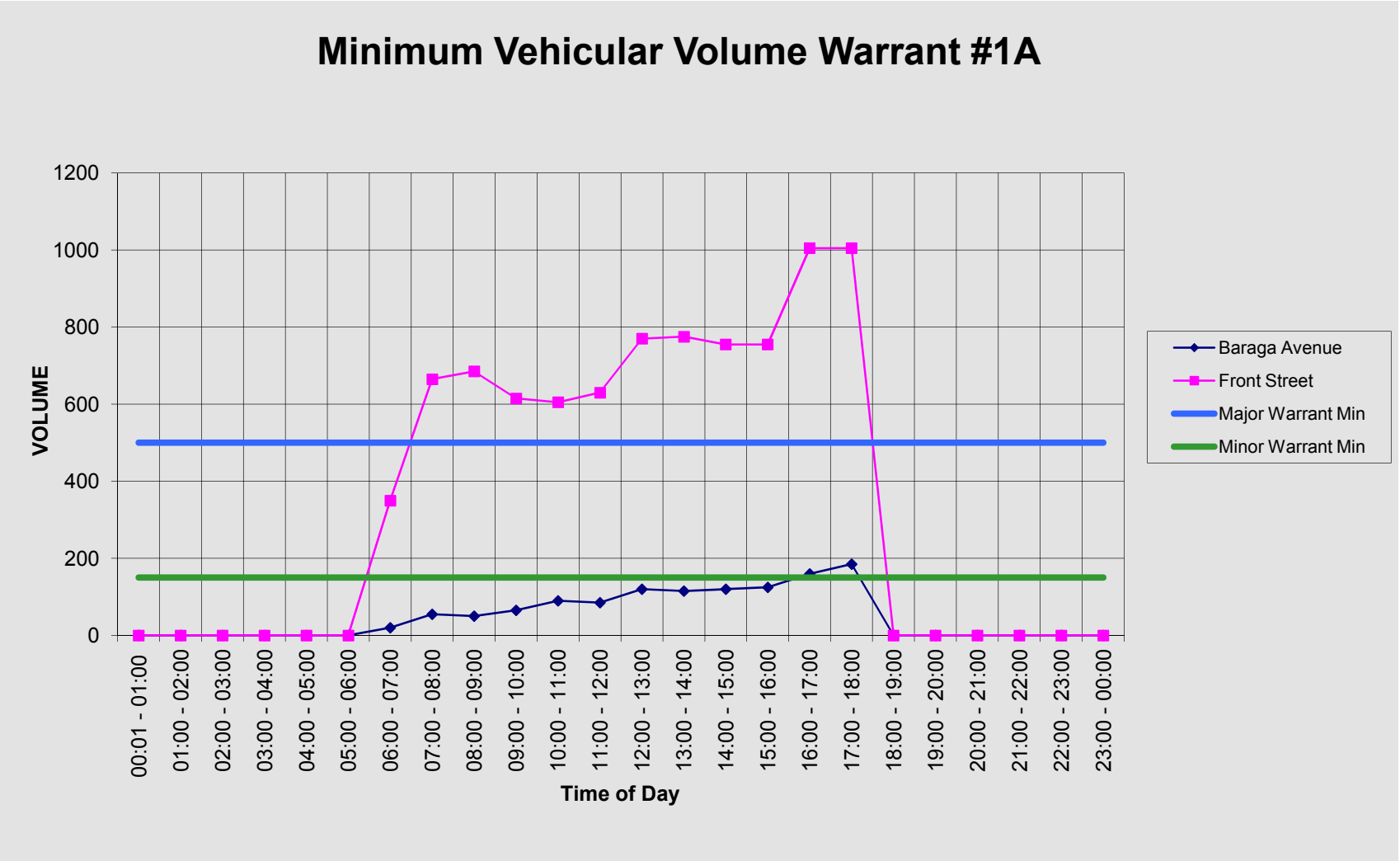
Total Hours Met: 2

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Front Street and Baraga Avenue
Spot Number: 37 Front Street and Baraga Avenue

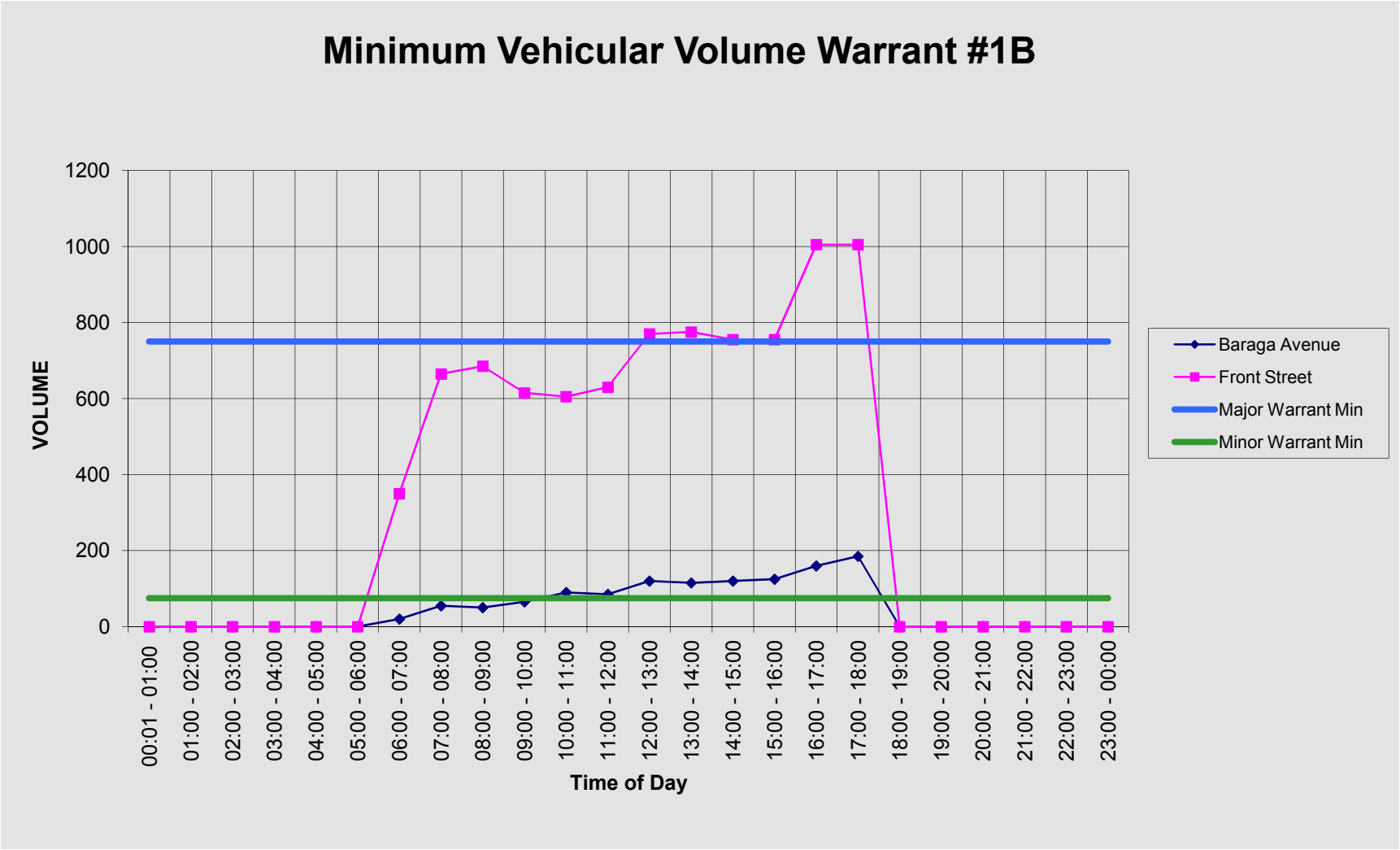
Major Street: Front Street
Minor Street: Baraga Avenue
Date of Survey: 2030 Volumes



NUMBER OF HOURS MET: 2

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Front Street and Baraga Avenue
Spot Number: 37 Front Street and Baraga Avenue

Major Street: Front Street
Minor Street: Baraga Avenue
Date of Survey: 2030 Volumes



NUMBER OF HOURS MET: 6

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

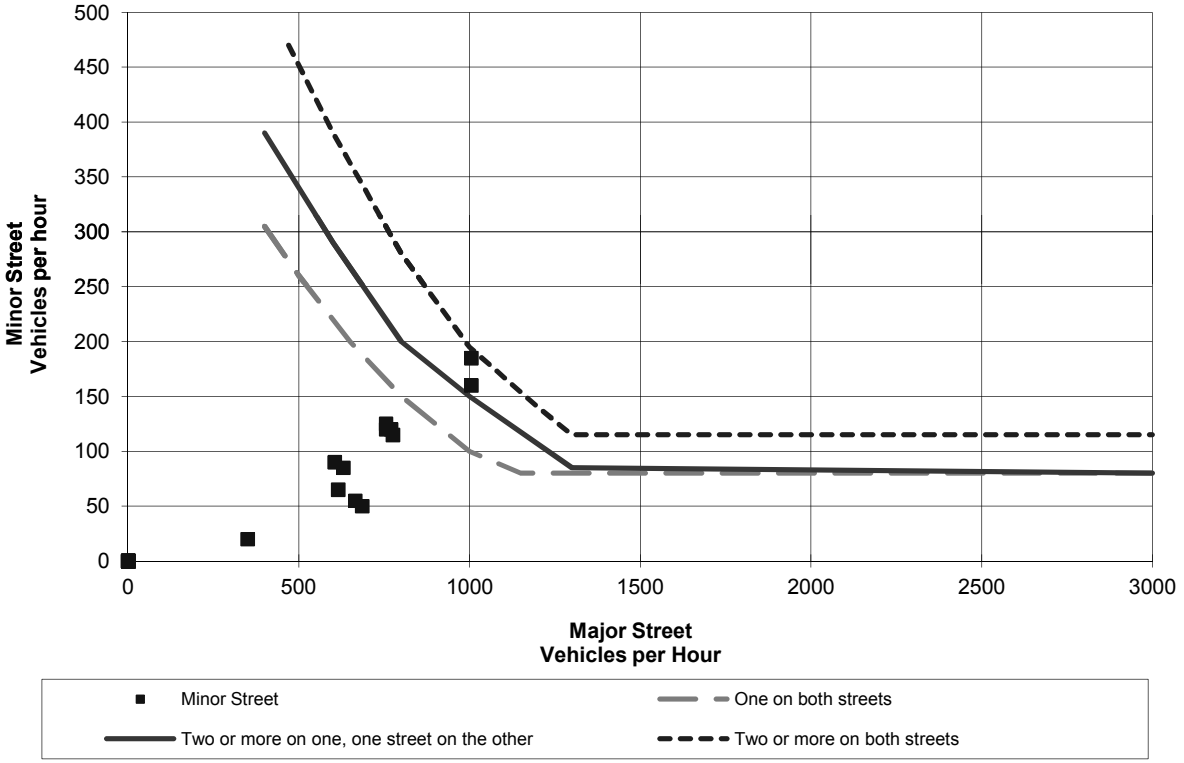
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.24

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 185 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

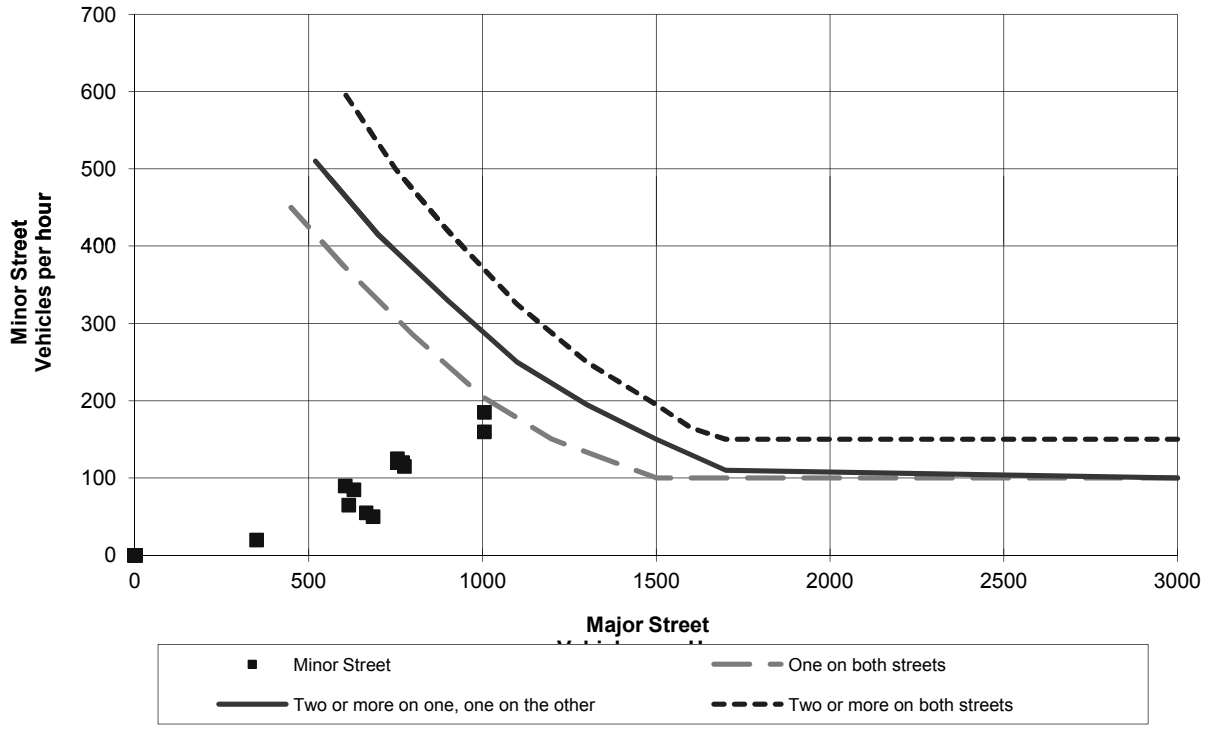
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? Yes

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 37 Front Street and Baraga Avenue

Major Street: Front Street Minor Street: Baraga Avenue

Intersection: Front Street and Baraga Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	75	241	10	17	316	17	343
07:00 - 08:00	181	424	27	49	605	49	681
08:00 - 09:00	155	469	35	45	624	45	704
09:00 - 10:00	173	390	25	58	563	58	646
10:00 - 11:00	207	341	37	79	548	79	664
11:00 - 12:00	221	351	34	77	572	77	683
12:00 - 13:00	280	423	42	108	703	108	853
13:00 - 14:00	301	407	28	102	708	102	838
14:00 - 15:00	294	391	34	110	685	110	829
15:00 - 16:00	300	390	42	114	690	114	846
16:00 - 17:00	420	498	43	144	918	144	1105
17:00 - 18:00	426	495	62	169	921	169	1152
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3033**	**4820**	**419**	**1072**	**7853**	**1072**	**9344**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	316	17	No
07:00 - 08:00	605	49	No
08:00 - 09:00	624	45	No
09:00 - 10:00	563	58	No
10:00 - 11:00	548	79	No
11:00 - 12:00	572	77	No
12:00 - 13:00	703	108	No
13:00 - 14:00	708	102	No
14:00 - 15:00	685	110	No
15:00 - 16:00	690	114	No
16:00 - 17:00	918	144	No
17:00 - 18:00	921	169	Yes
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

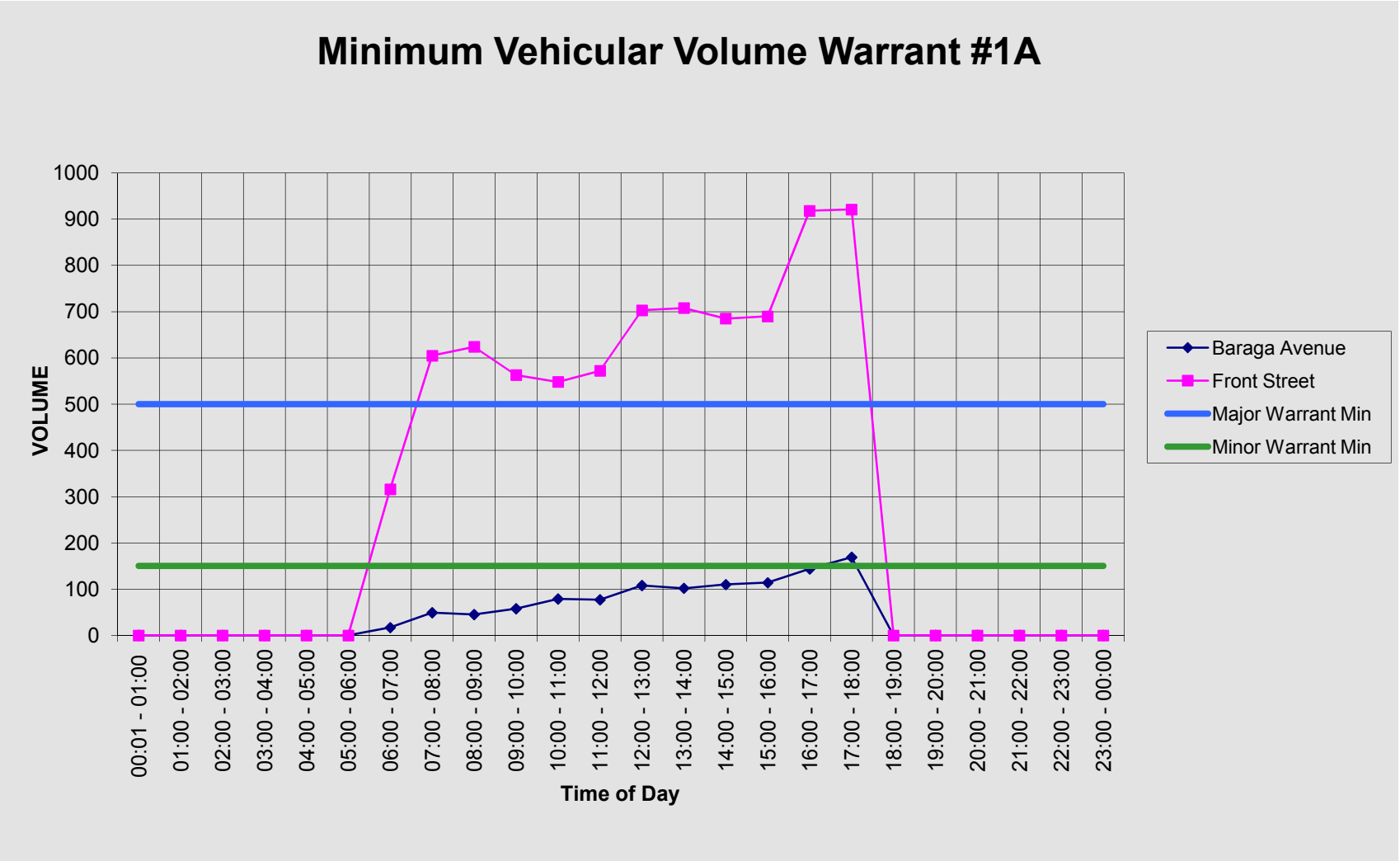
Total Hours Met: 1

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Front Street and Baraga Avenue
Spot Number: 37 Front Street and Baraga Avenue

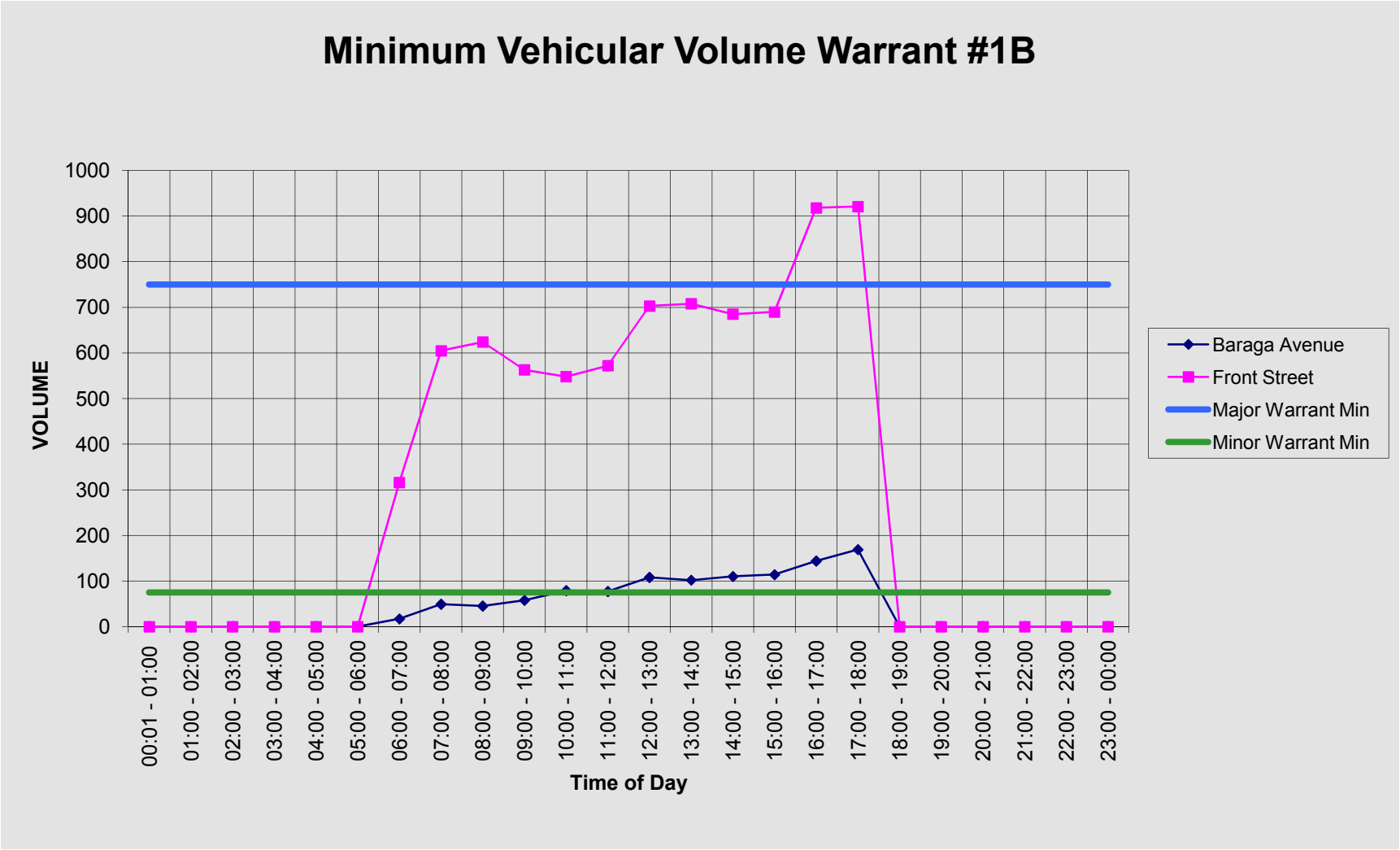
Major Street: Front Street
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 1

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Front Street and Baraga Avenue
Spot Number: 37 Front Street and Baraga Avenue

Major Street: Front Street
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 2

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

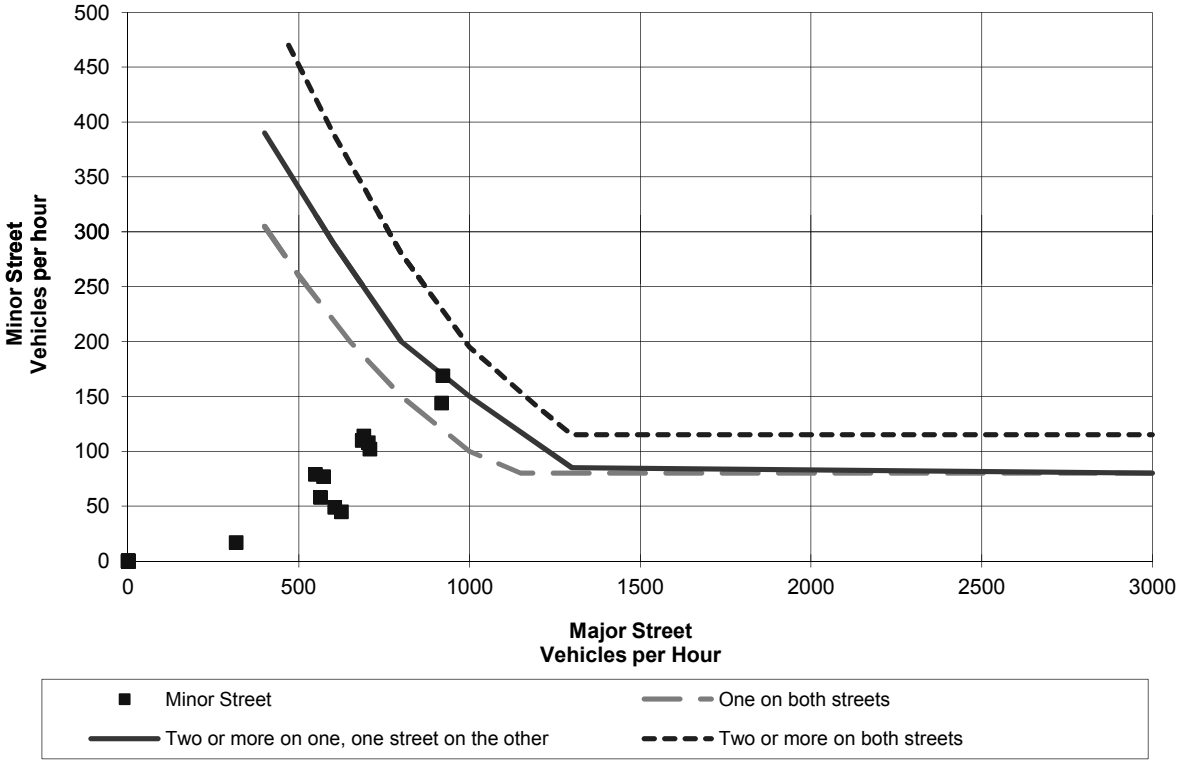
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.24

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 169 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

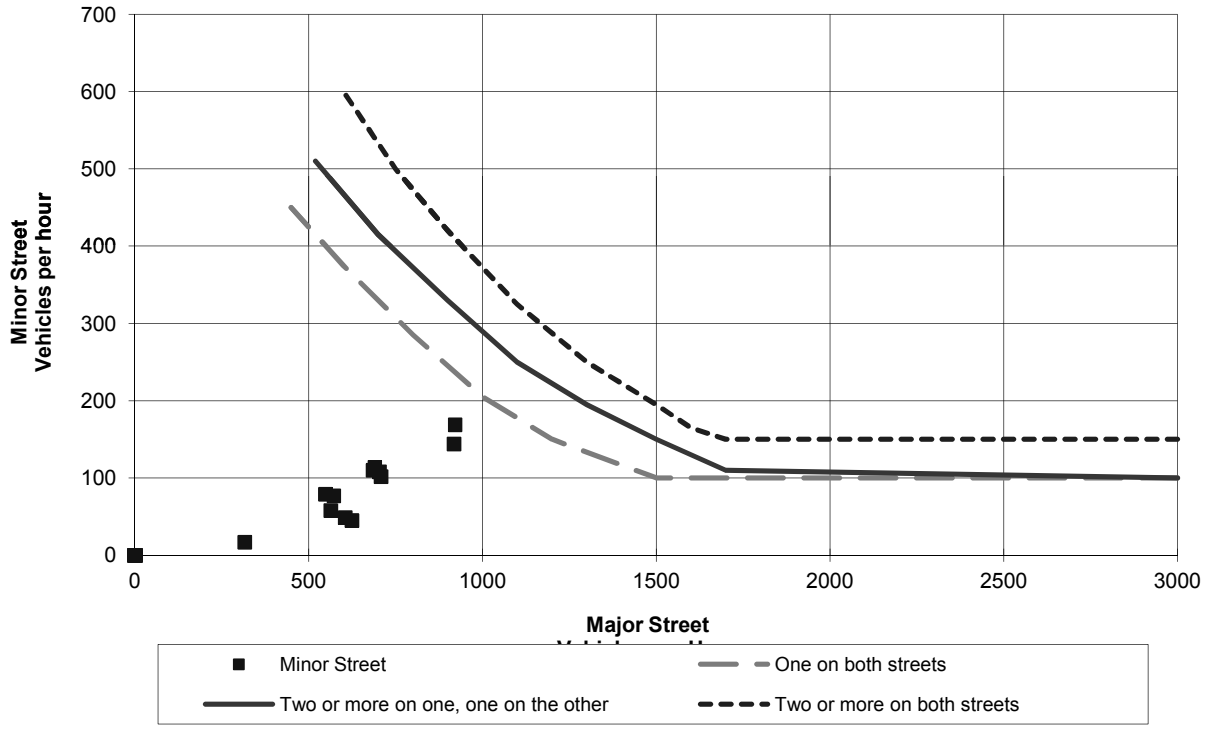
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? Yes

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Baraga Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 39 Third Street and Baraga Avenue

Major Street: Third Street Minor Street: Baraga Avenue

Intersection: Third Street and Baraga Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major WB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	31	42	33	9	73	33	115
07:00 - 08:00	96	144	83	32	240	83	355
08:00 - 09:00	106	122	76	25	228	76	329
09:00 - 10:00	123	87	44	42	210	44	296
10:00 - 11:00	180	97	87	47	277	87	411
11:00 - 12:00	202	114	89	67	316	89	472
12:00 - 13:00	217	126	78	59	343	78	480
13:00 - 14:00	221	122	69	70	343	70	482
14:00 - 15:00	261	125	93	60	386	93	539
15:00 - 16:00	267	139	78	65	406	78	549
16:00 - 17:00	266	155	90	71	421	90	582
17:00 - 18:00	320	160	95	75	480	95	650
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2290**	**1433**	**915**	**622**	**3723**	**916**	**5260**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	73	33	No
07:00 - 08:00	240	83	No
08:00 - 09:00	228	76	No
09:00 - 10:00	210	44	No
10:00 - 11:00	277	87	No
11:00 - 12:00	316	89	No
12:00 - 13:00	343	78	No
13:00 - 14:00	343	70	No
14:00 - 15:00	386	93	No
15:00 - 16:00	406	78	No
16:00 - 17:00	421	90	No
17:00 - 18:00	480	95	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

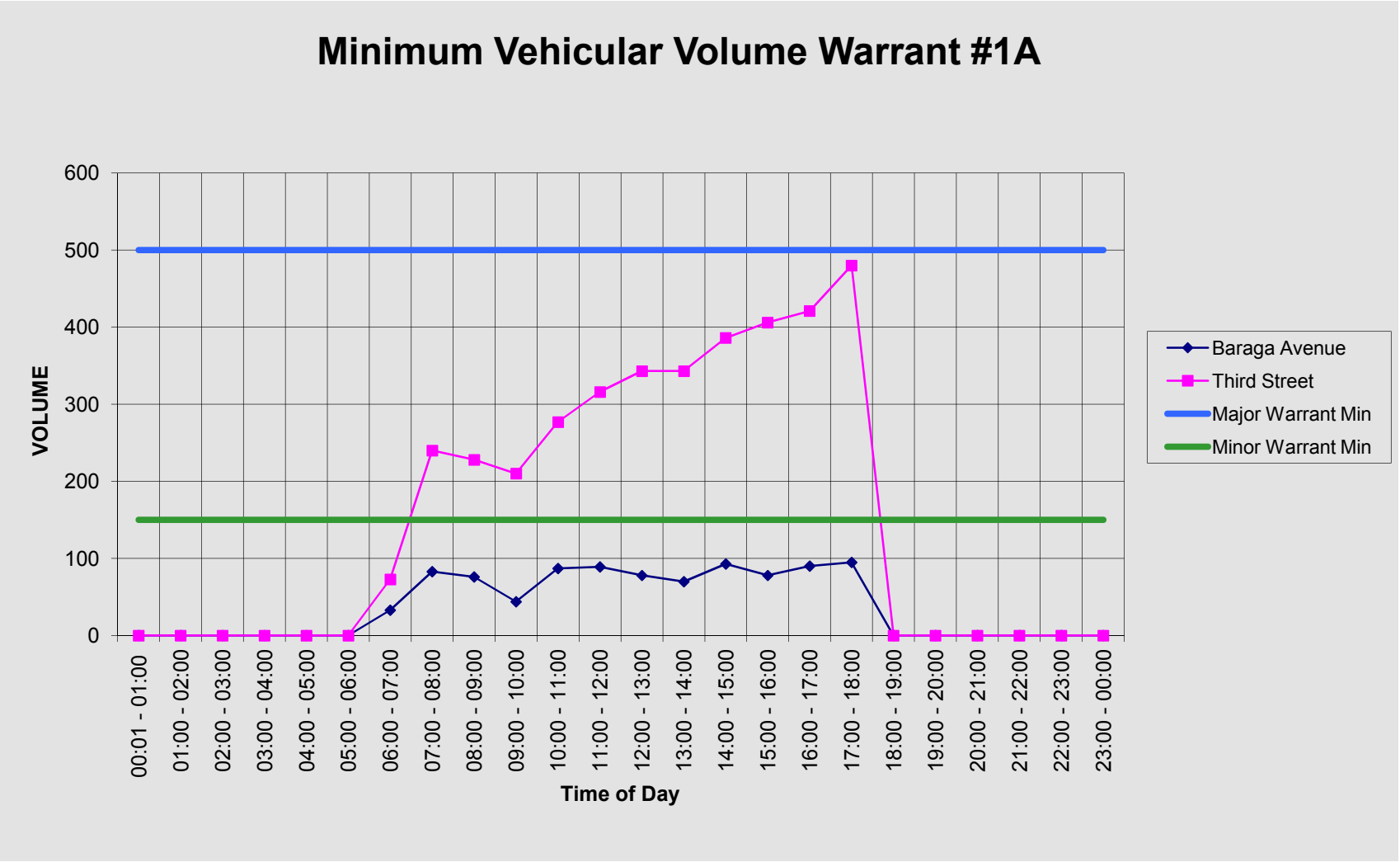
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Third Street and Baraga Avenue
Spot Number: 39 Third Street and Baraga Avenue

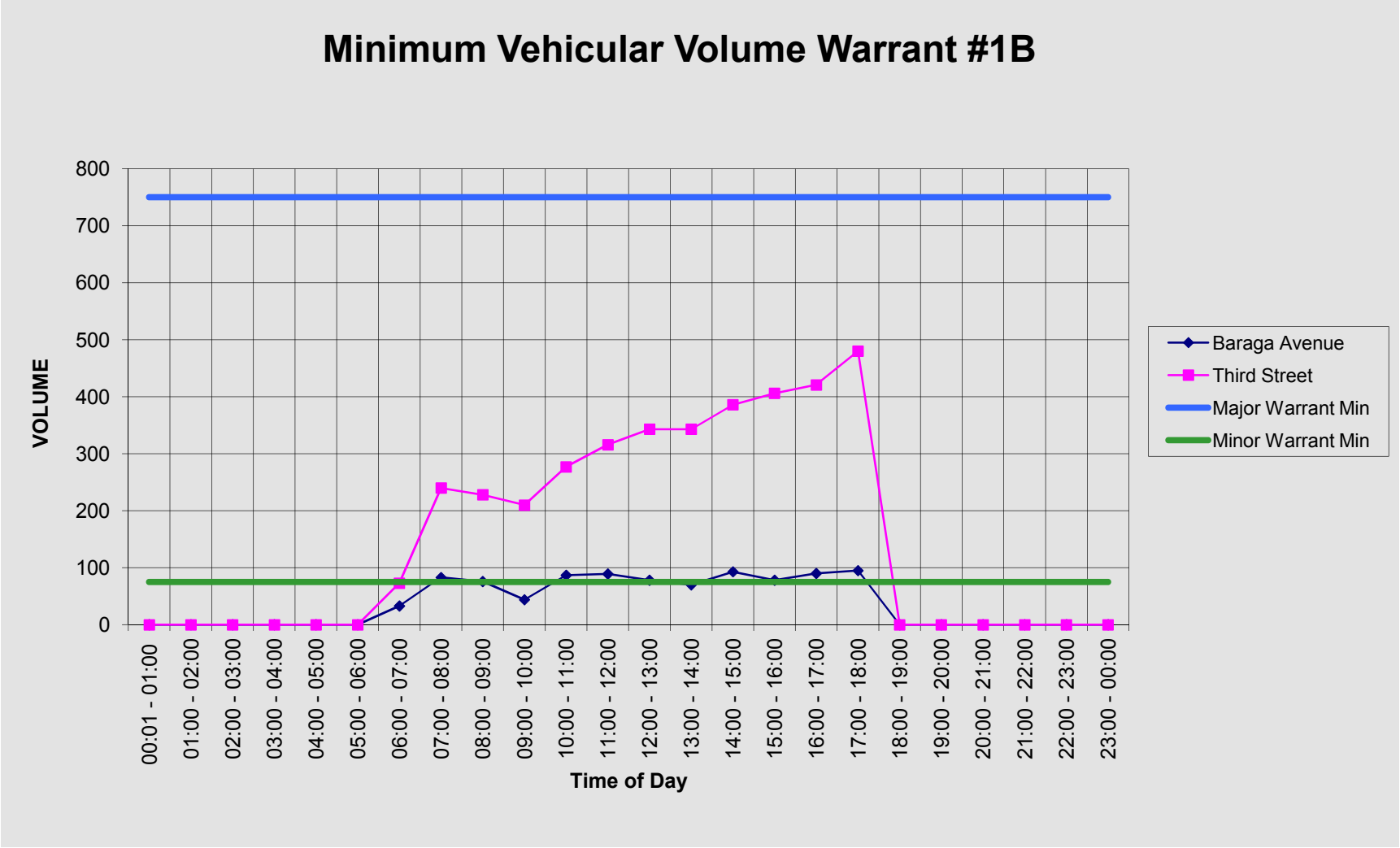
Major Street: Third Street
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Third Street and Baraga Avenue
Spot Number: 39 Third Street and Baraga Avenue

Major Street: Third Street
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette

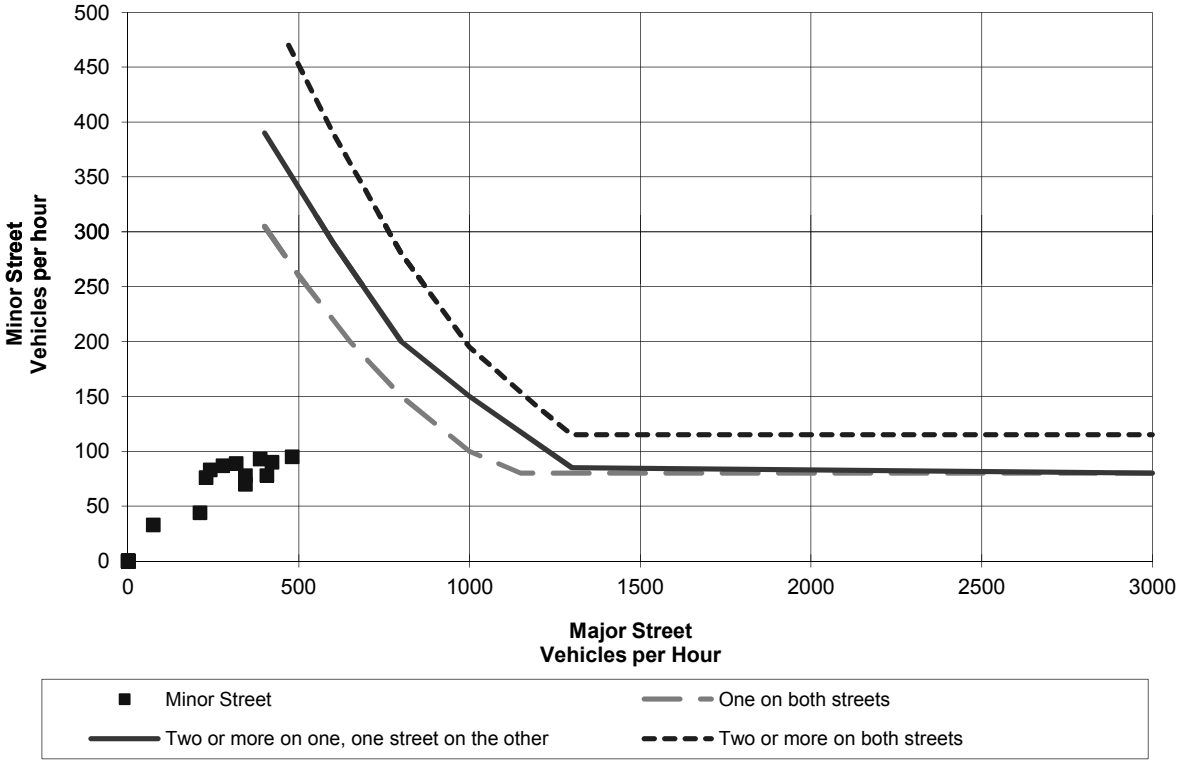
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 95 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette

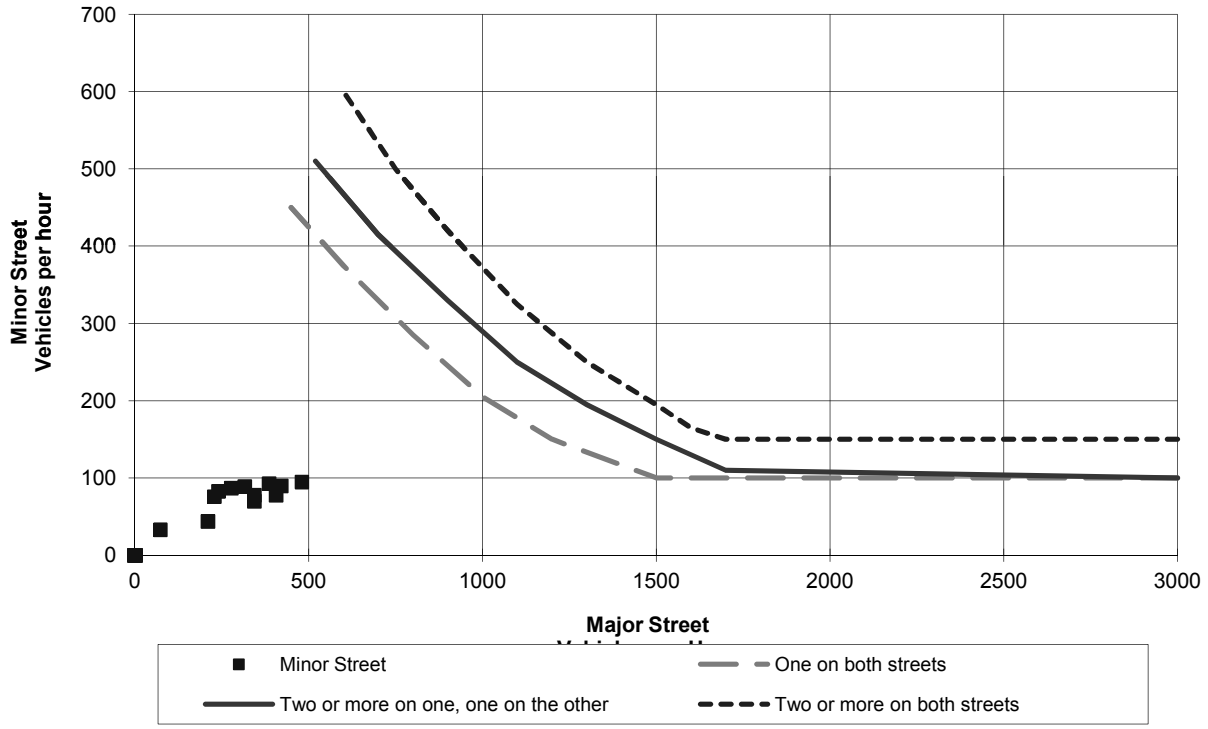
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? No **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Baraga Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 40 Fourth Street and Baraga Avenue

Major Street: Fourth Street Minor Street: Baraga Avenue

Intersection: Fourth Street and Baraga Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major WB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	25	67	26	10	92	26	128
07:00 - 08:00	108	162	52	24	270	52	346
08:00 - 09:00	74	95	49	29	169	49	247
09:00 - 10:00	94	100	48	44	194	48	286
10:00 - 11:00	102	65	81	38	167	81	286
11:00 - 12:00	129	92	90	49	221	90	360
12:00 - 13:00	147	88	73	51	235	73	359
13:00 - 14:00	165	116	83	50	281	83	414
14:00 - 15:00	194	108	80	60	302	80	442
15:00 - 16:00	220	90	80	57	310	80	447
16:00 - 17:00	200	104	89	68	304	89	461
17:00 - 18:00	200	74	51	51	274	51	376
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1658**	**1161**	**802**	**531**	**2819**	**802**	**4152**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	92	26	No
07:00 - 08:00	270	52	No
08:00 - 09:00	169	49	No
09:00 - 10:00	194	48	No
10:00 - 11:00	167	81	No
11:00 - 12:00	221	90	No
12:00 - 13:00	235	73	No
13:00 - 14:00	281	83	No
14:00 - 15:00	302	80	No
15:00 - 16:00	310	80	No
16:00 - 17:00	304	89	No
17:00 - 18:00	274	51	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

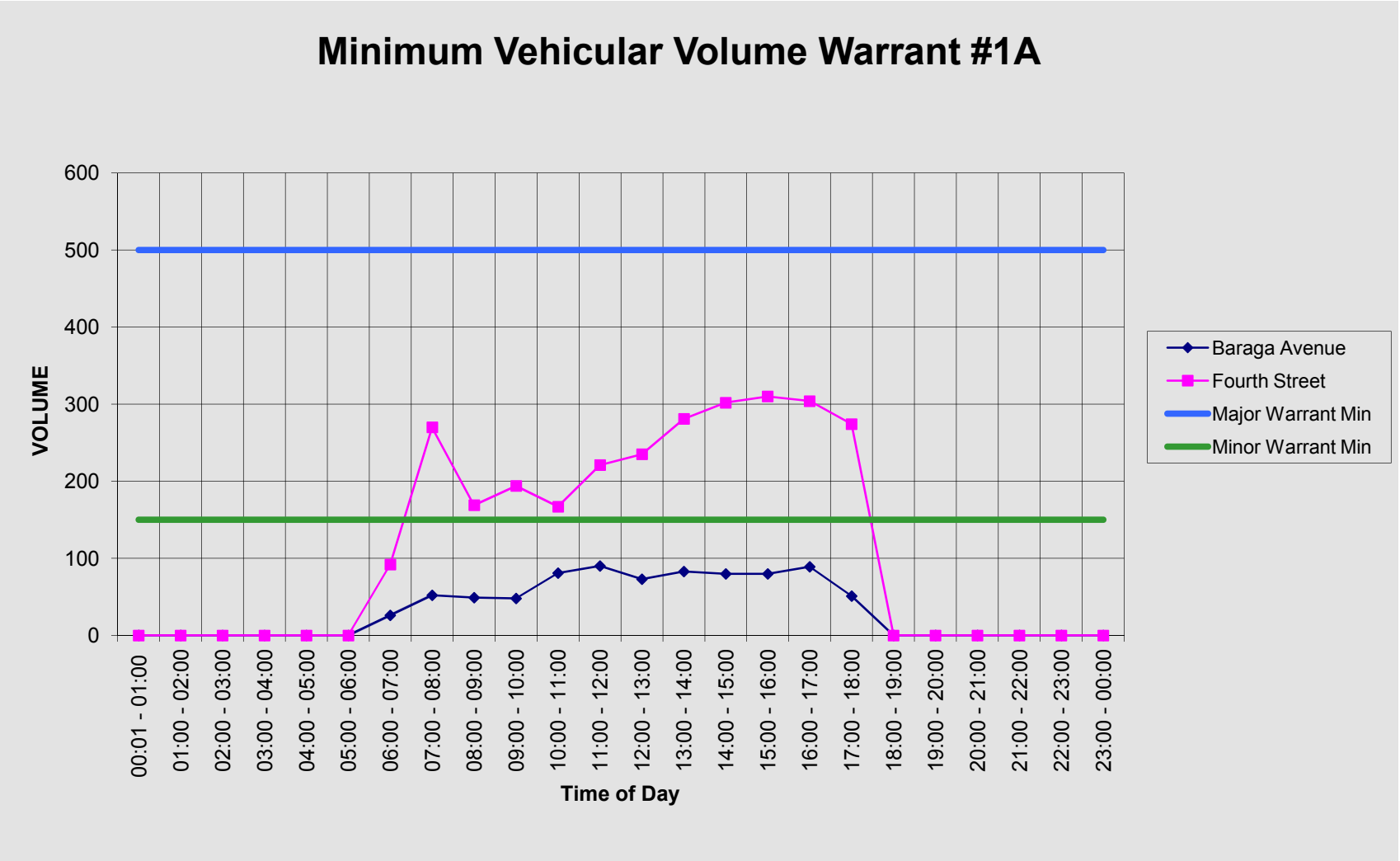
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Fourth Street and Baraga Avenue
Spot Number: 40 Fourth Street and Baraga Avenue

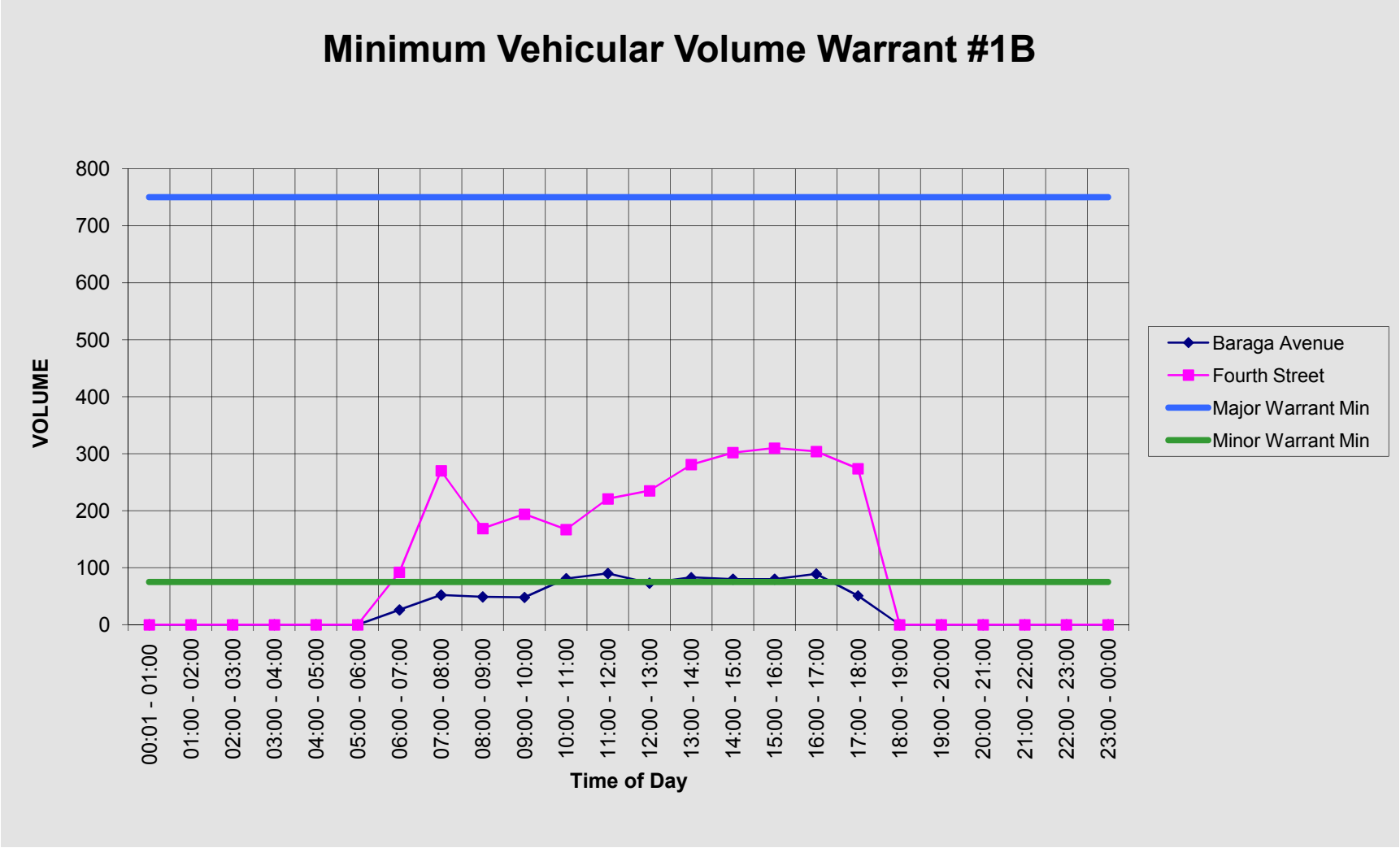
Major Street: Fourth Street
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Fourth Street and Baraga Avenue
Spot Number: 40 Fourth Street and Baraga Avenue

Major Street: Fourth Street
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette

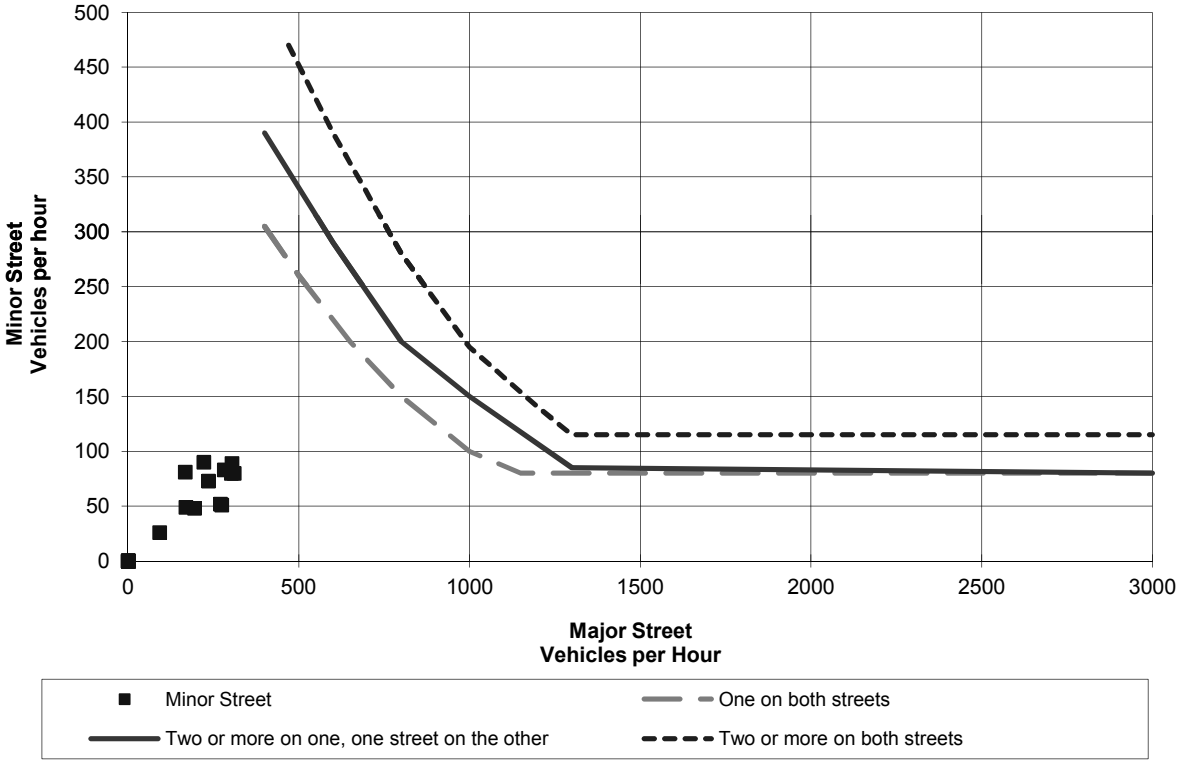
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 90 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 11:00 - 12:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette

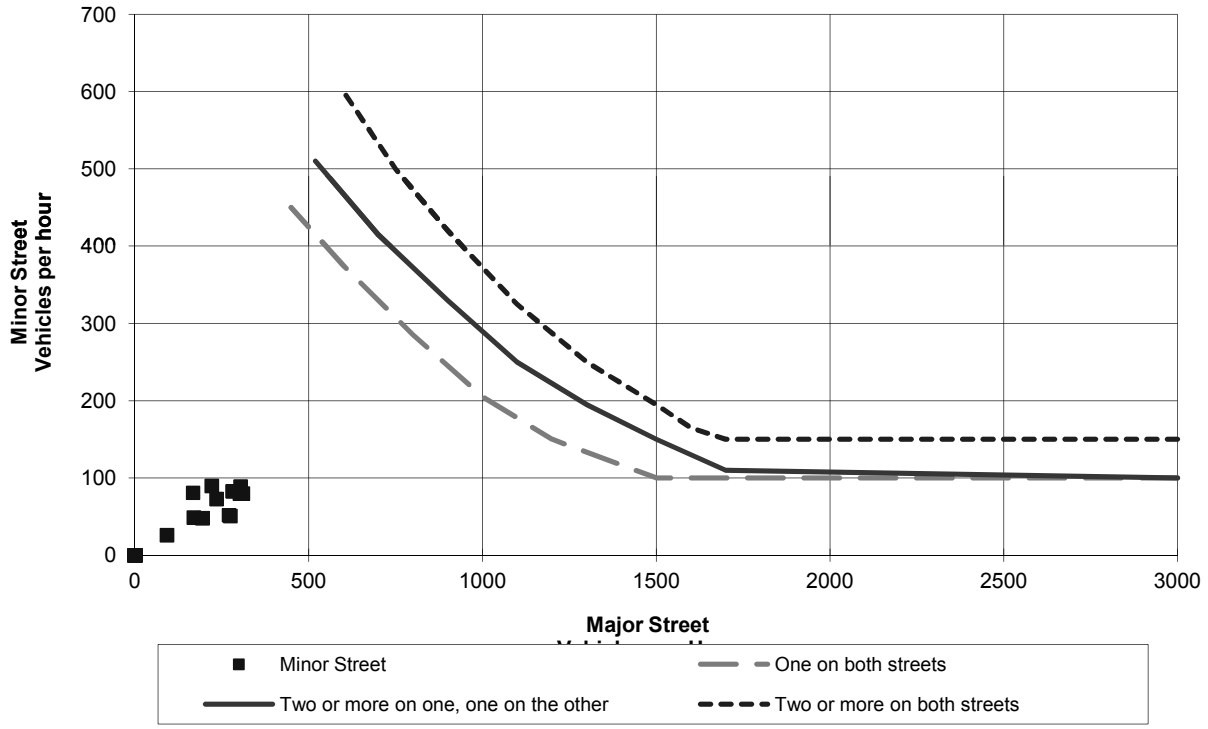
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Baraga Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 41 Seventh Street and Spring Street

Major Street: Seventh Street Minor Street: Spring Street

Intersection: Seventh Street and Spring Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	41	144	14	0	185	14	199
07:00 - 08:00	154	384	36	0	538	36	574
08:00 - 09:00	102	266	30	3	368	30	401
09:00 - 10:00	110	184	36	2	294	36	332
10:00 - 11:00	141	155	41	2	296	41	339
11:00 - 12:00	153	176	57	1	329	57	387
12:00 - 13:00	218	184	58	4	402	58	464
13:00 - 14:00	215	161	48	3	376	48	427
14:00 - 15:00	220	201	44	3	421	44	468
15:00 - 16:00	247	197	50	6	444	50	500
16:00 - 17:00	322	170	68	4	492	68	564
17:00 - 18:00	302	212	64	3	514	64	581
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2225**	**2434**	**546**	**31**	**4659**	**546**	**5236**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	185	14	No
07:00 - 08:00	538	36	No
08:00 - 09:00	368	30	No
09:00 - 10:00	294	36	No
10:00 - 11:00	296	41	No
11:00 - 12:00	329	57	No
12:00 - 13:00	402	58	No
13:00 - 14:00	376	48	No
14:00 - 15:00	421	44	No
15:00 - 16:00	444	50	No
16:00 - 17:00	492	68	No
17:00 - 18:00	514	64	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

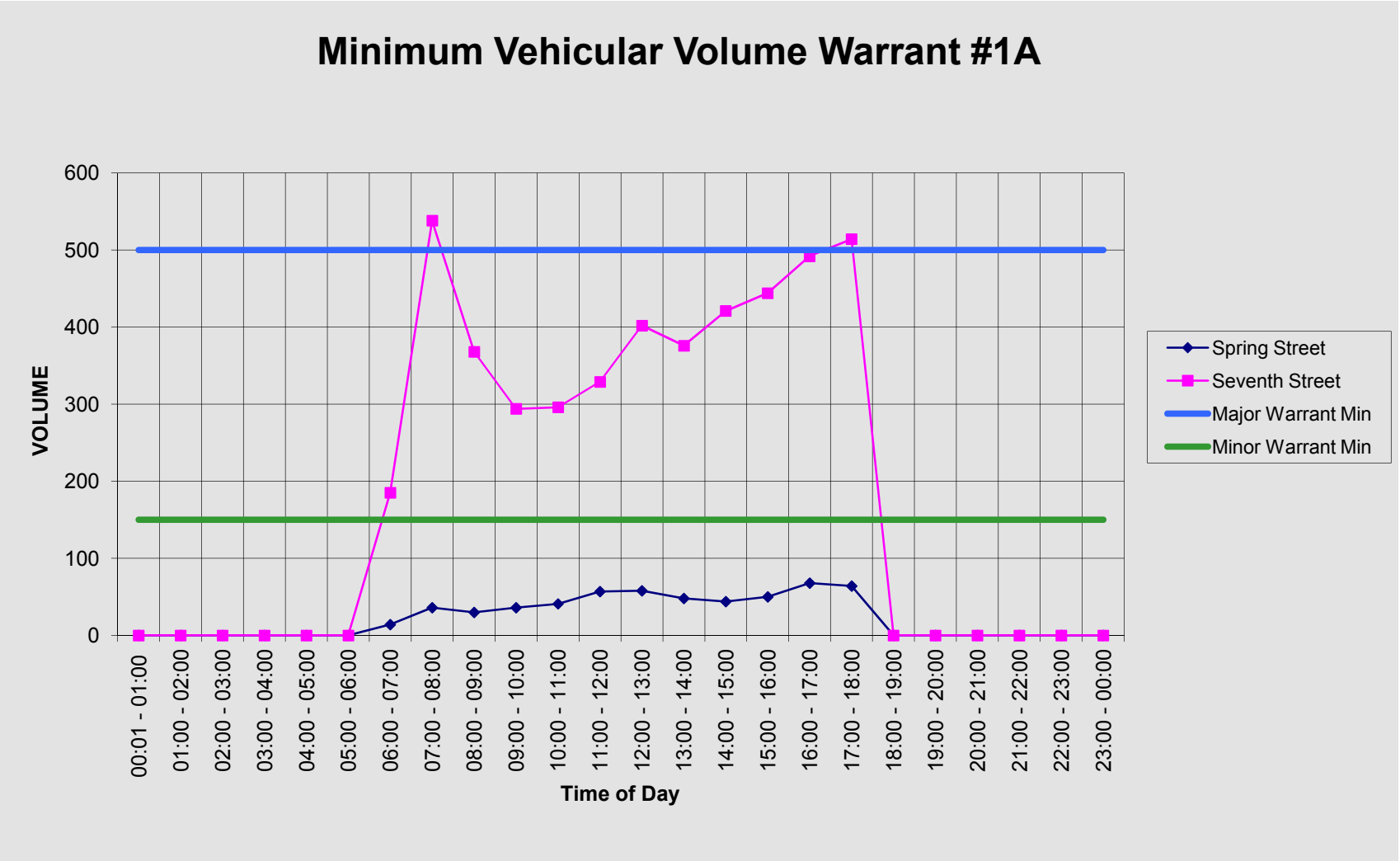
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? No
B. Is the Interruption of Continuous Traffic Met? No
Combination of Warrants A and B Criteria Met? No
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Seventh Street and Spring Street
Spot Number: 41 Seventh Street and Spring Street

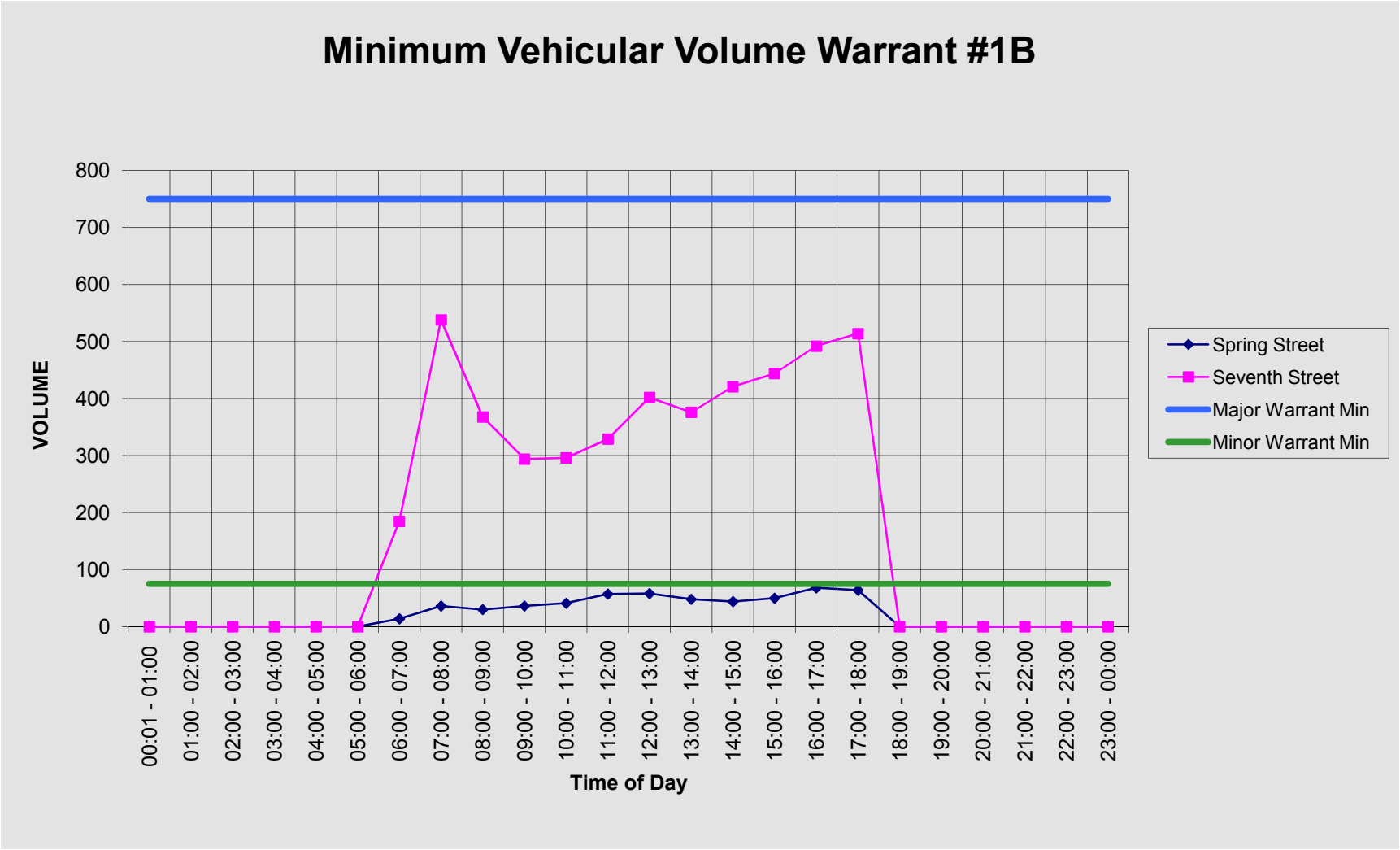
Major Street: Seventh Street
Minor Street: Spring Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Seventh Street and Spring Street
Spot Number: 41 Seventh Street and Spring Street

Major Street: Seventh Street
Minor Street: Spring Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette

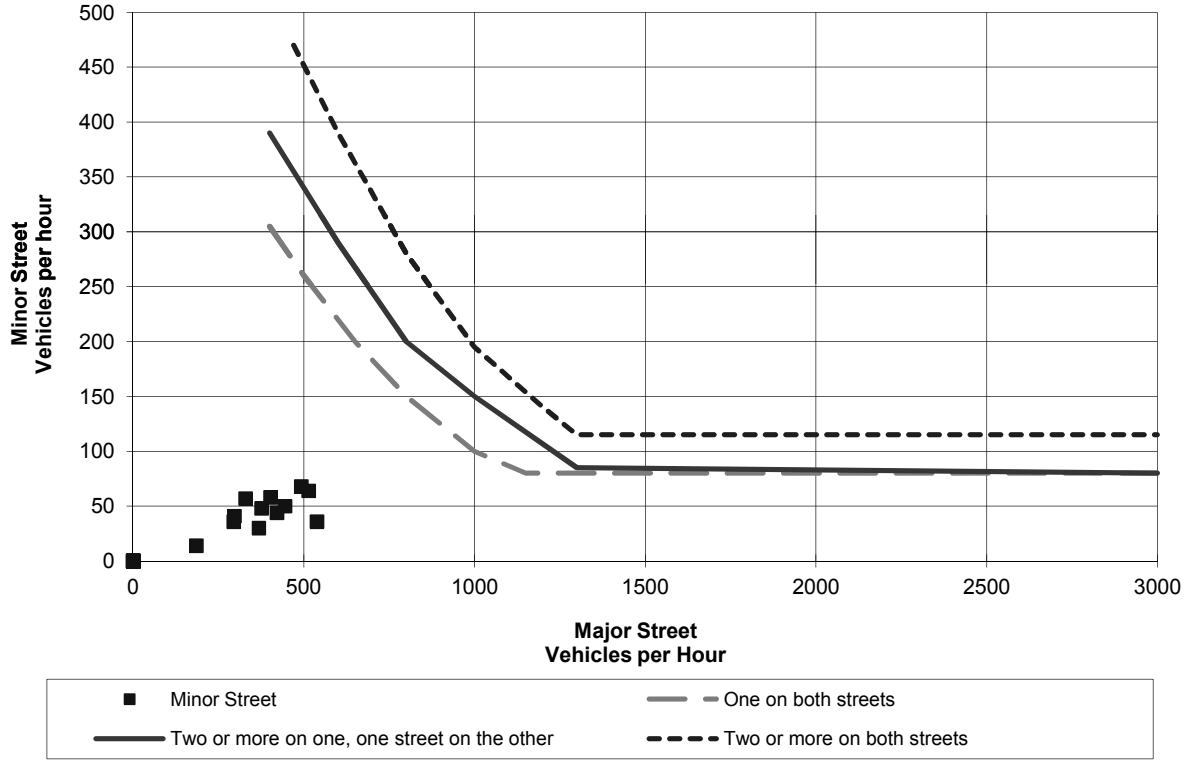
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 68 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette

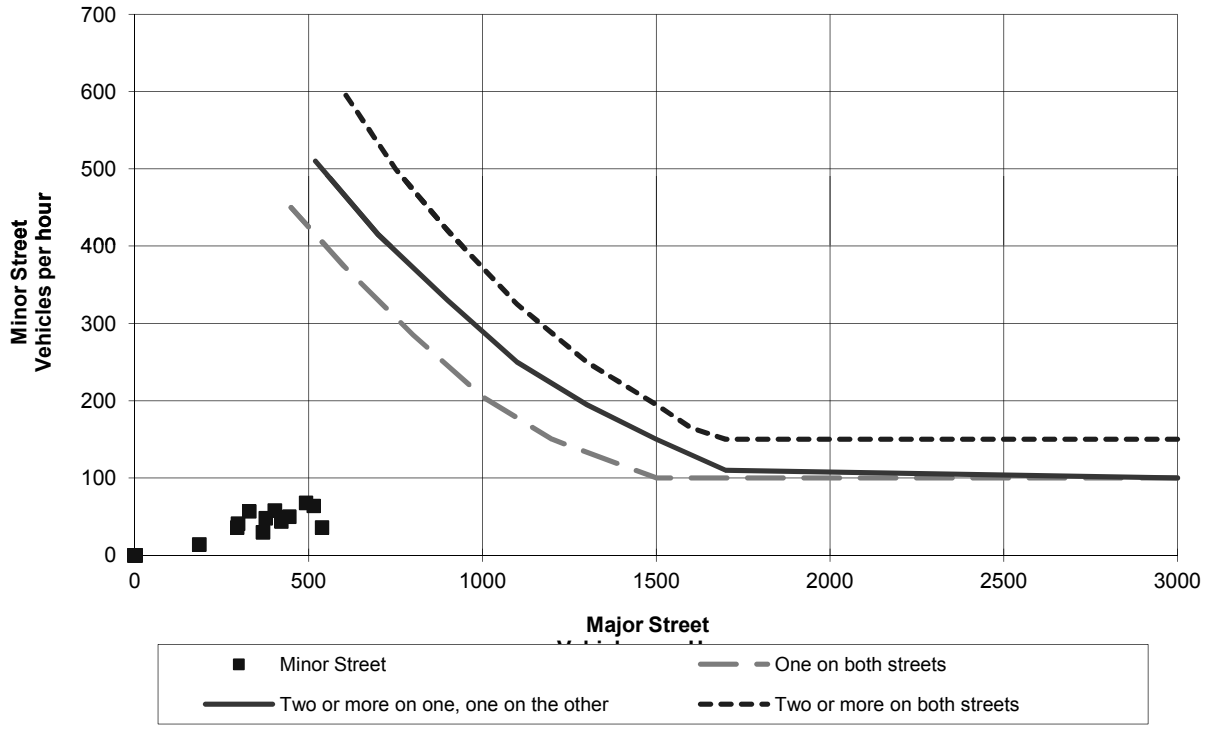
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Spring Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 42 Seventh Street and Baraga Avenue

Major Street: Seventh Street Minor Street: Baraga Avenue

Intersection: Seventh Street and Baraga Avenue

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	45	147	10	15	192	15	217
07:00 - 08:00	158	385	26	66	543	66	635
08:00 - 09:00	114	254	36	47	368	47	451
09:00 - 10:00	119	184	39	65	303	65	407
10:00 - 11:00	137	149	35	45	286	45	366
11:00 - 12:00	162	156	57	74	318	74	449
12:00 - 13:00	225	183	45	80	408	80	533
13:00 - 14:00	220	151	44	82	371	82	497
14:00 - 15:00	224	194	48	104	418	104	570
15:00 - 16:00	254	203	47	64	457	64	568
16:00 - 17:00	342	157	59	99	499	99	657
17:00 - 18:00	326	209	43	86	535	86	664
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2326**	**2372**	**489**	**827**	**4698**	**827**	**6014**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	192	15	No
07:00 - 08:00	543	66	No
08:00 - 09:00	368	47	No
09:00 - 10:00	303	65	No
10:00 - 11:00	286	45	No
11:00 - 12:00	318	74	No
12:00 - 13:00	408	80	No
13:00 - 14:00	371	82	No
14:00 - 15:00	418	104	No
15:00 - 16:00	457	64	No
16:00 - 17:00	499	99	No
17:00 - 18:00	535	86	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

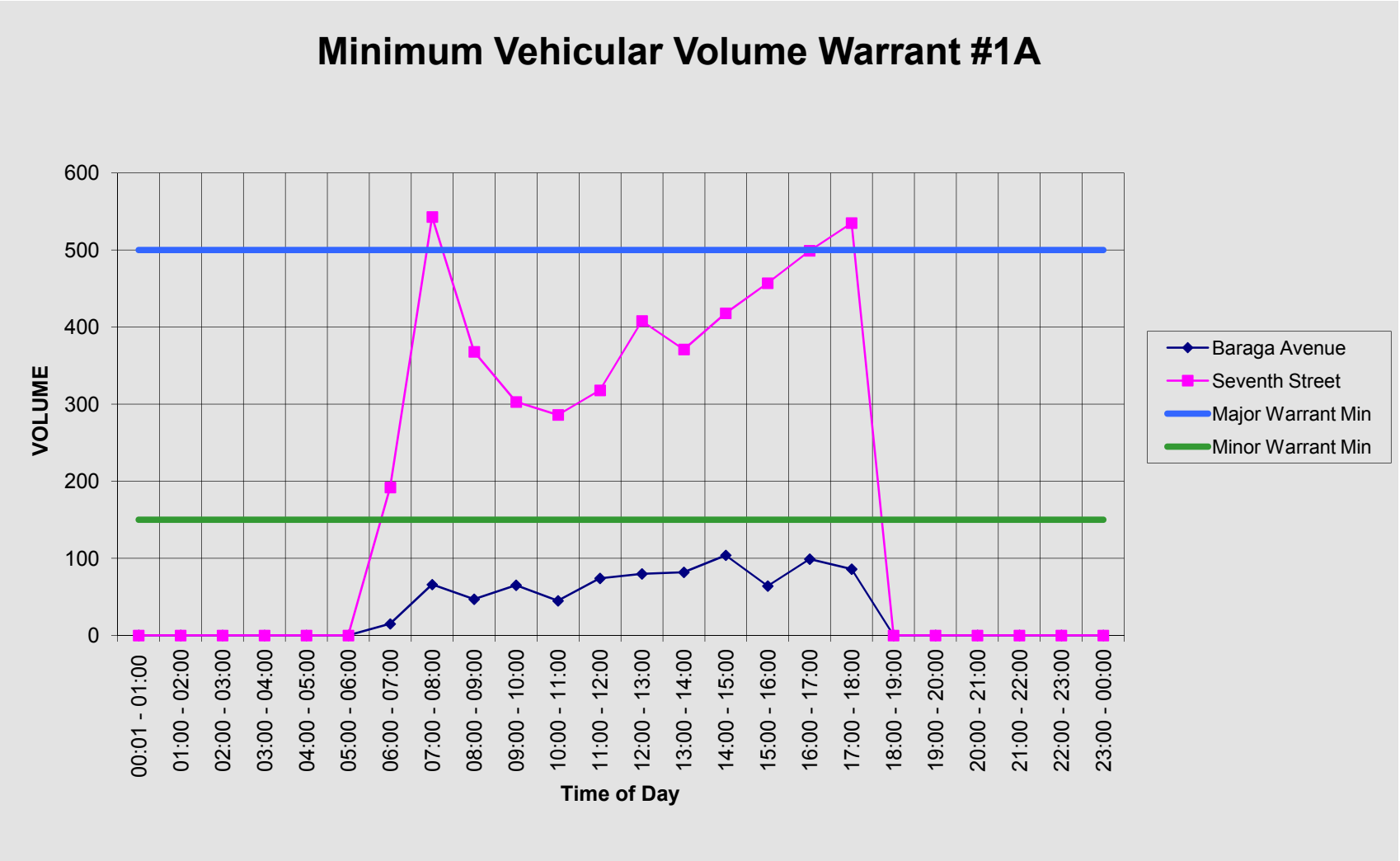
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Seventh Street and Baraga Avenue
Spot Number: 42 Seventh Street and Baraga Avenue

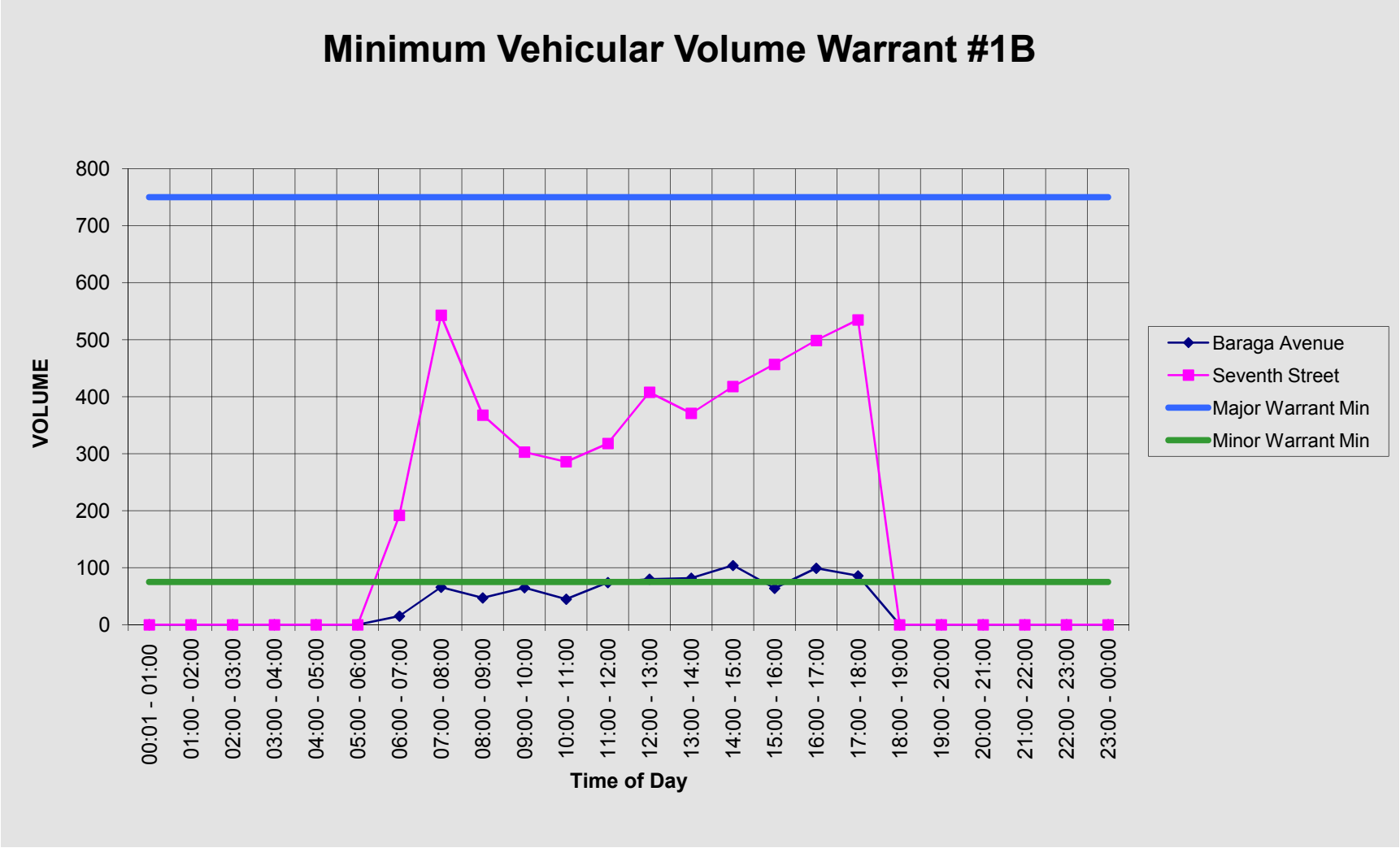
Major Street: Seventh Street
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Seventh Street and Baraga Avenue
Spot Number: 42 Seventh Street and Baraga Avenue

Major Street: Seventh Street
Minor Street: Baraga Avenue
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette

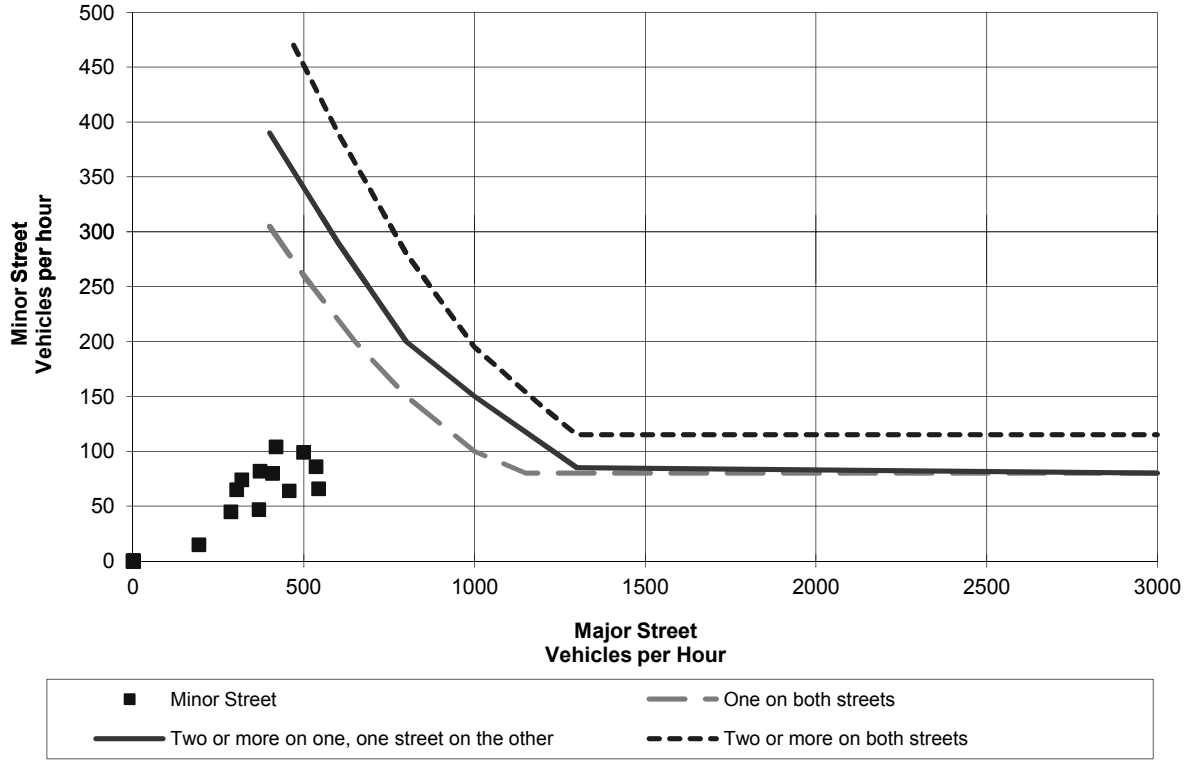
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 104 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 14:00 - 15:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette

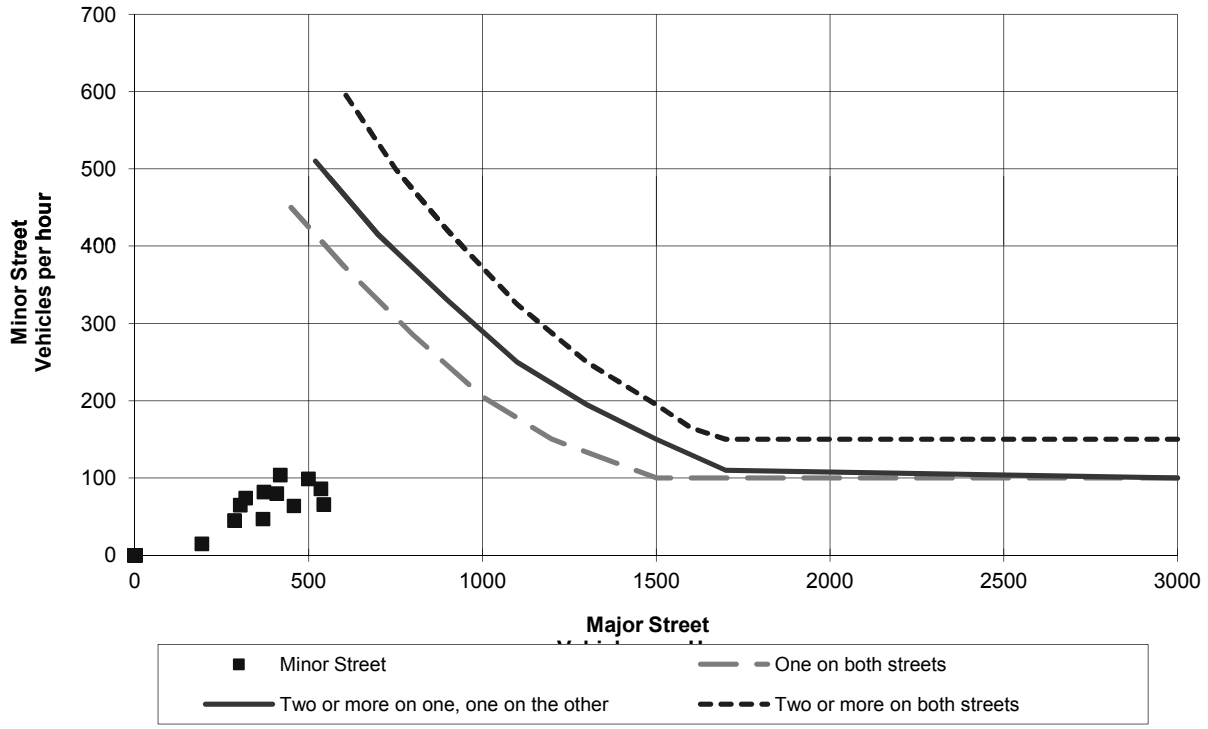
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Baraga Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 43 Frpnt Street and Fisher Street

Major Street: Front Street Minor Street: Fisher Street

Intersection: Front Street and Fisher Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	93	274	0	14	367	14	381
07:00 - 08:00	216	516	2	39	732	39	773
08:00 - 09:00	179	474	0	56	653	56	709
09:00 - 10:00	204	400	0	47	604	47	651
10:00 - 11:00	253	345	0	62	598	62	660
11:00 - 12:00	268	352	0	80	620	80	700
12:00 - 13:00	362	443	0	70	805	70	875
13:00 - 14:00	360	429	0	75	789	75	864
14:00 - 15:00	368	419	0	87	787	87	874
15:00 - 16:00	373	419	1	122	792	122	915
16:00 - 17:00	526	541	1	116	1067	116	1184
17:00 - 18:00	580	500	0	121	1080	121	1201
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3782**	**5112**	**4**	**889**	**8894**	**889**	**9787**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? NO

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	367	14	No
07:00 - 08:00	732	39	No
08:00 - 09:00	653	56	No
09:00 - 10:00	604	47	No
10:00 - 11:00	598	62	No
11:00 - 12:00	620	80	No
12:00 - 13:00	805	70	No
13:00 - 14:00	789	75	No
14:00 - 15:00	787	87	No
15:00 - 16:00	792	122	No
16:00 - 17:00	1067	116	No
17:00 - 18:00	1080	121	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

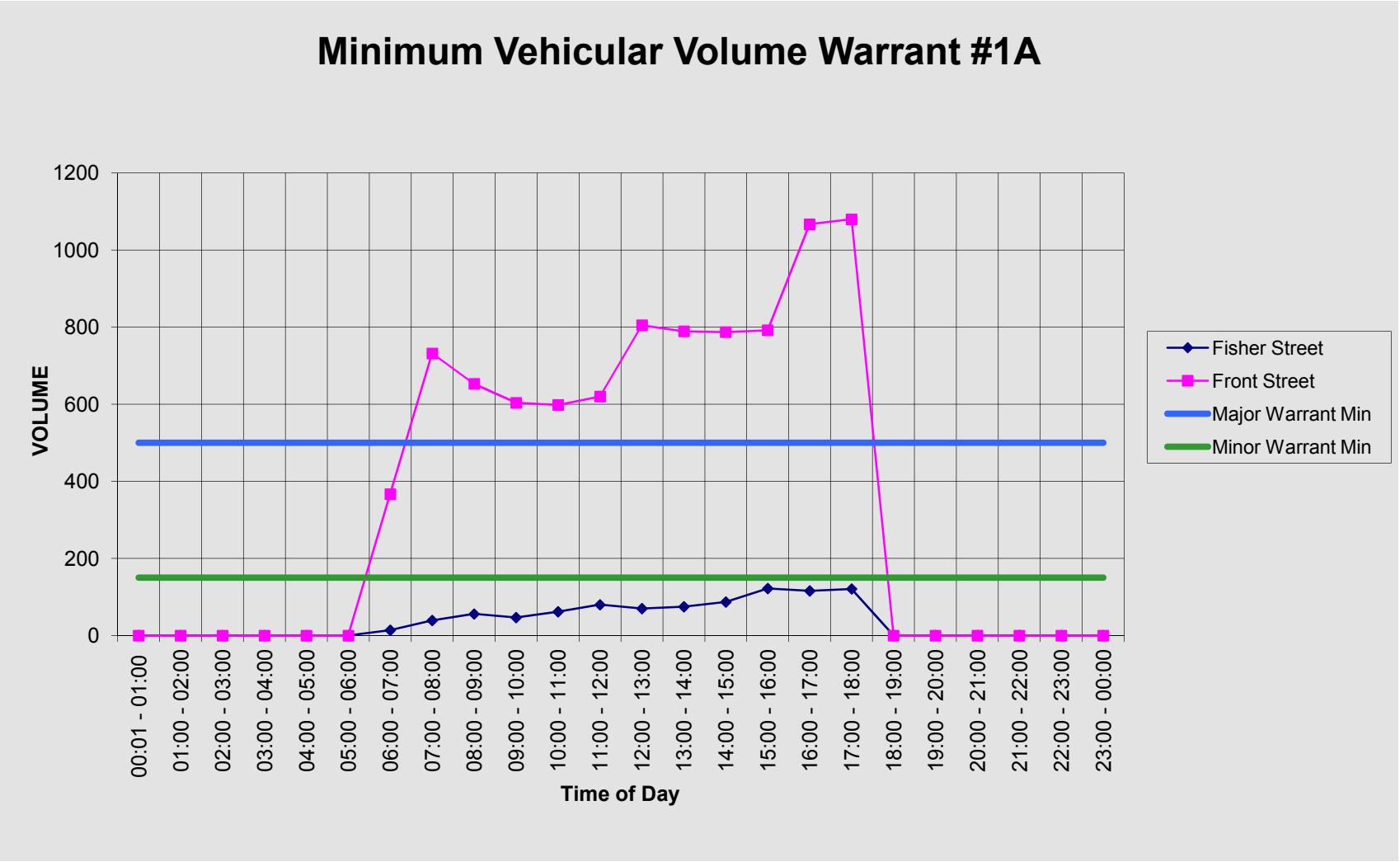
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? NO

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Front Street and Fisher Street
Spot Number: 43 Frpnt Street and Fisher Street

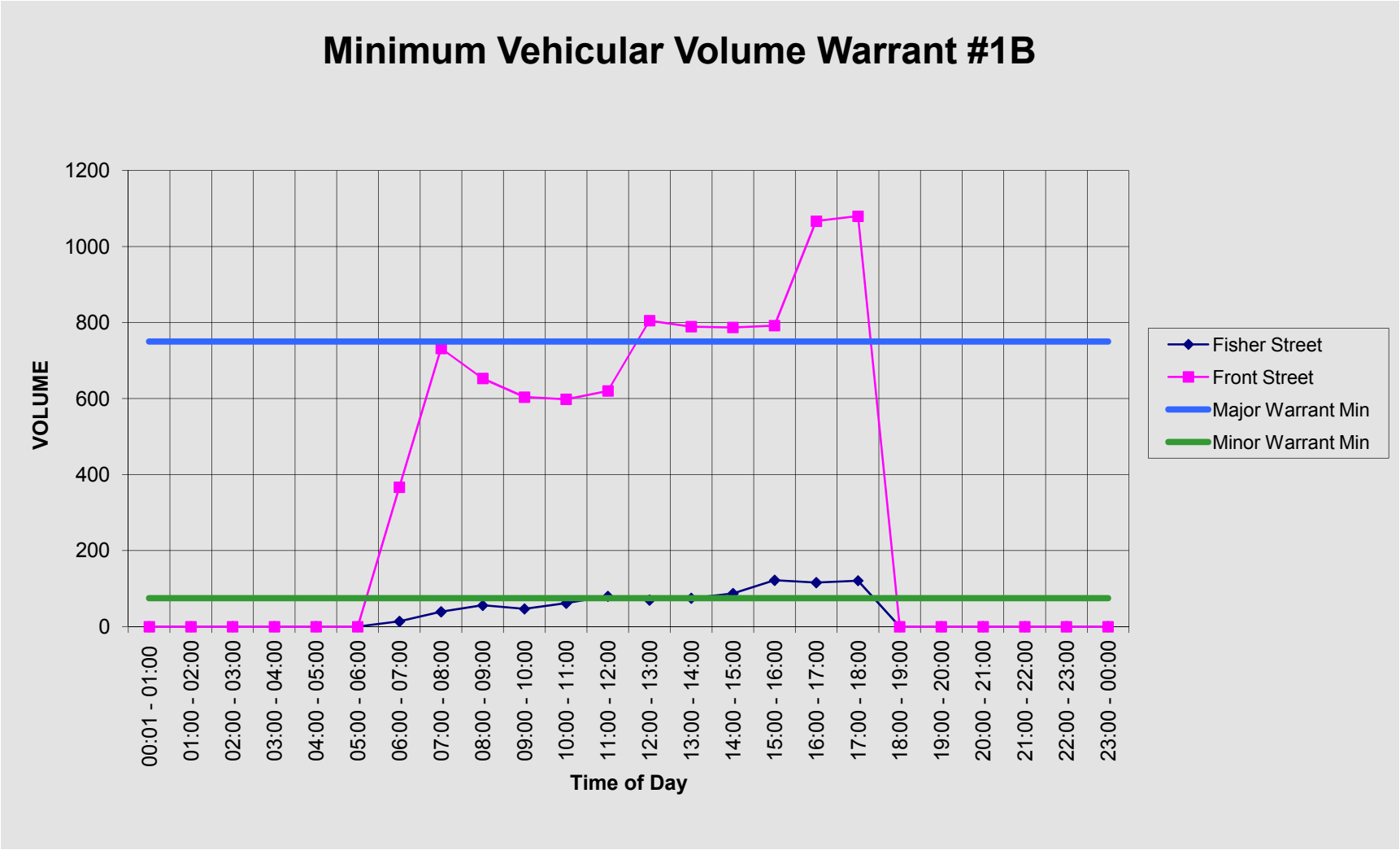
Major Street: Front Street
Minor Street: Fisher Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Front Street and Fisher Street
Spot Number: 43 Frpnt Street and Fisher Street

Major Street: Front Street
Minor Street: Fisher Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 5

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette

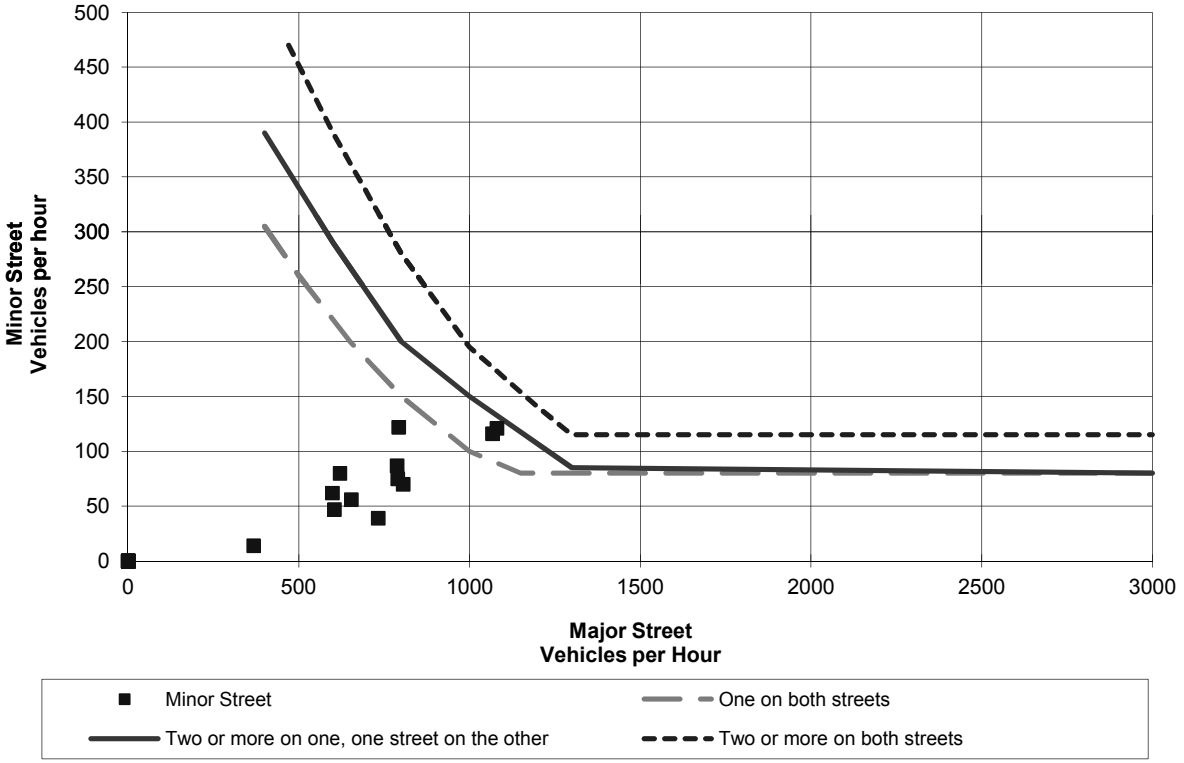
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 122 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 15:00 - 16:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette

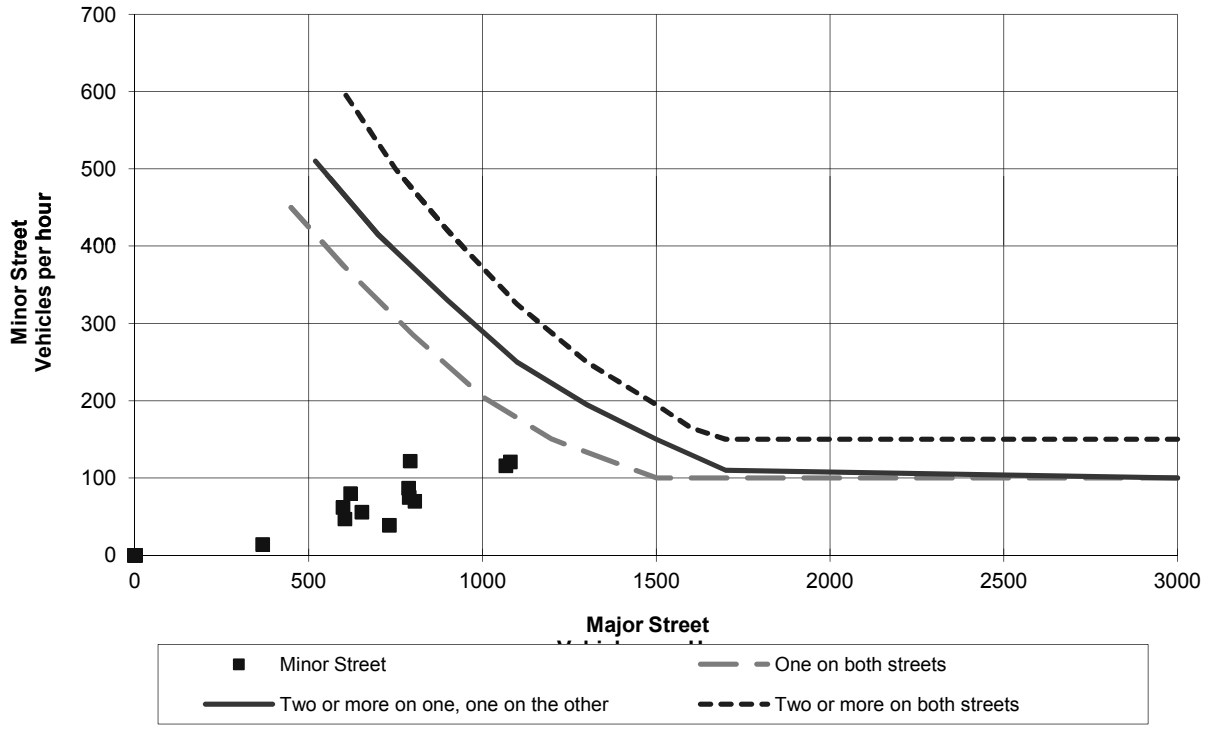
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? Yes, No, N/A

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Fisher Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 44 Third Street and Fisher Street

Major Street: Fisher Street Minor Street: Third Street

Intersection: Third Street and Fisher Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major WB	Major EB	Minor SB	Minor NB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	75	18	18	1	93	18	112
07:00 - 08:00	218	83	66	5	301	66	372
08:00 - 09:00	124	80	71	9	204	71	284
09:00 - 10:00	106	104	68	6	210	68	284
10:00 - 11:00	101	73	116	4	174	116	294
11:00 - 12:00	102	114	137	9	216	137	362
12:00 - 13:00	111	114	142	13	225	142	380
13:00 - 14:00	125	113	150	6	238	150	394
14:00 - 15:00	129	133	162	7	262	162	431
15:00 - 16:00	118	159	187	7	277	187	471
16:00 - 17:00	136	177	184	10	313	184	507
17:00 - 18:00	111	183	223	14	294	223	531
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1456**	**1351**	**1524**	**91**	**2807**	**1524**	**4422**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	93	18	No
07:00 - 08:00	301	66	No
08:00 - 09:00	204	71	No
09:00 - 10:00	210	68	No
10:00 - 11:00	174	116	No
11:00 - 12:00	216	137	No
12:00 - 13:00	225	142	No
13:00 - 14:00	238	150	No
14:00 - 15:00	262	162	No
15:00 - 16:00	277	187	No
16:00 - 17:00	313	184	No
17:00 - 18:00	294	223	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

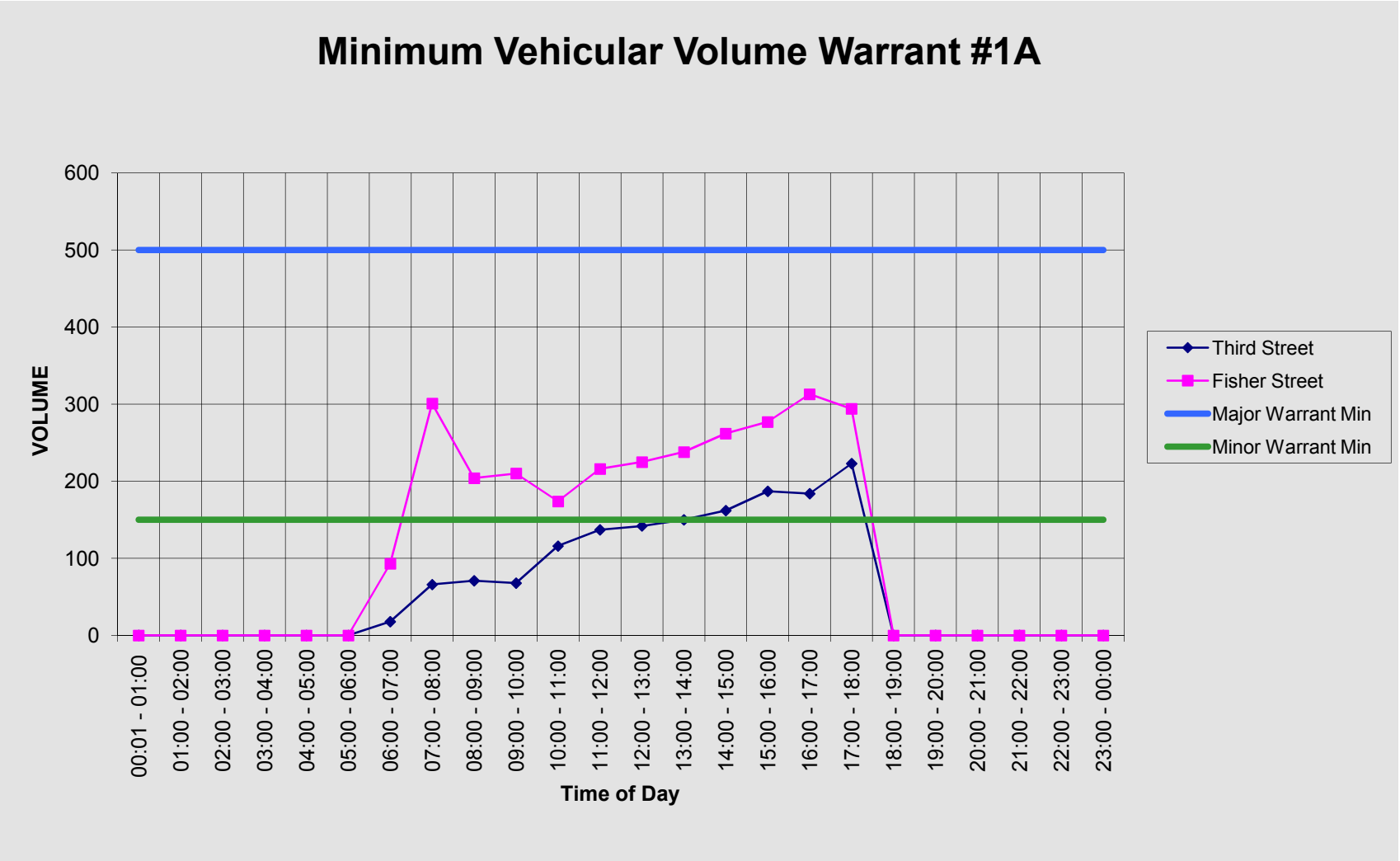
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Third Street and Fisher Street
Spot Number: 44 Third Street and Fisher Street

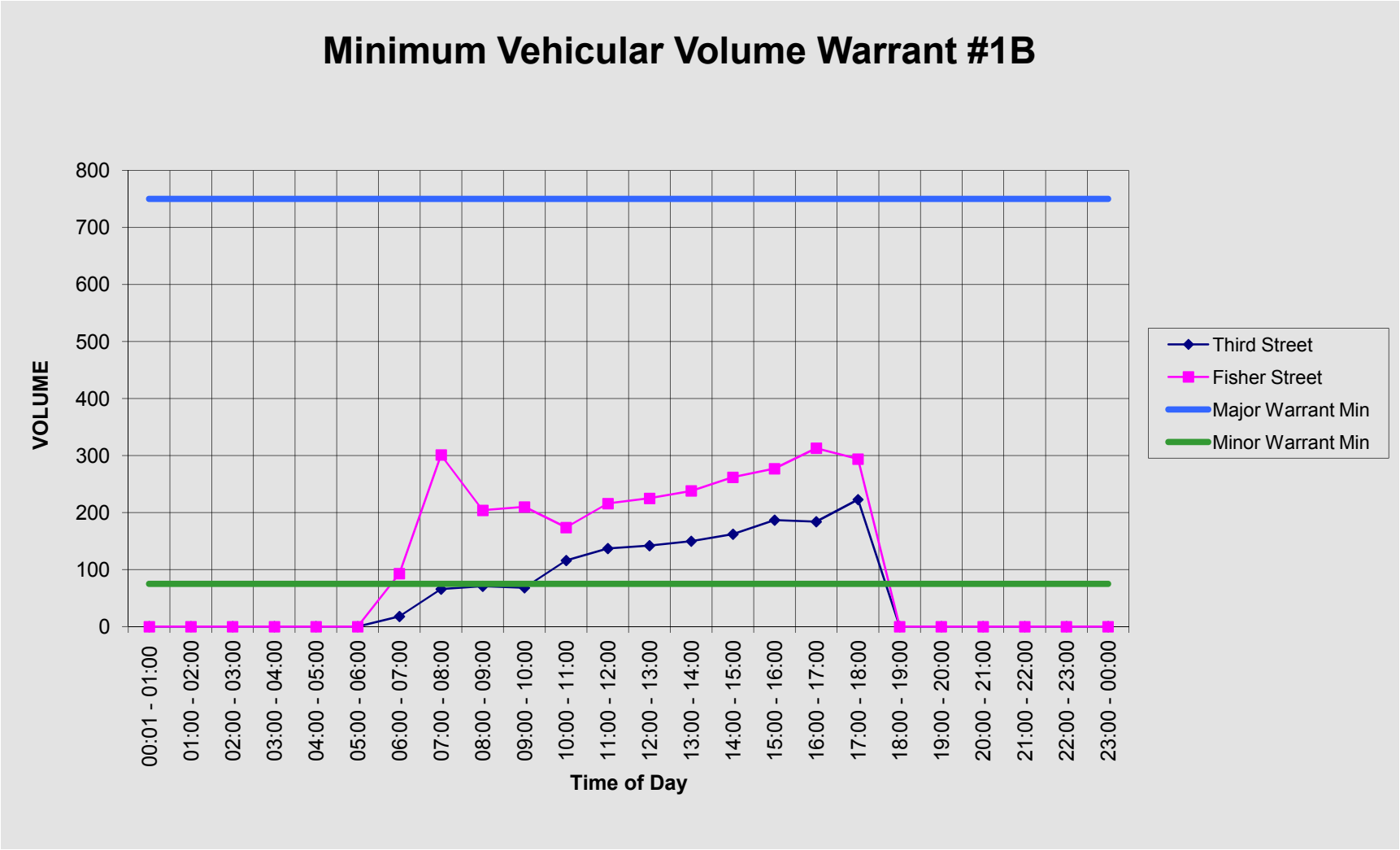
Major Street: Fisher Street
Minor Street: Third Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Third Street and Fisher Street
Spot Number: 44 Third Street and Fisher Street

Major Street: Fisher Street
Minor Street: Third Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette

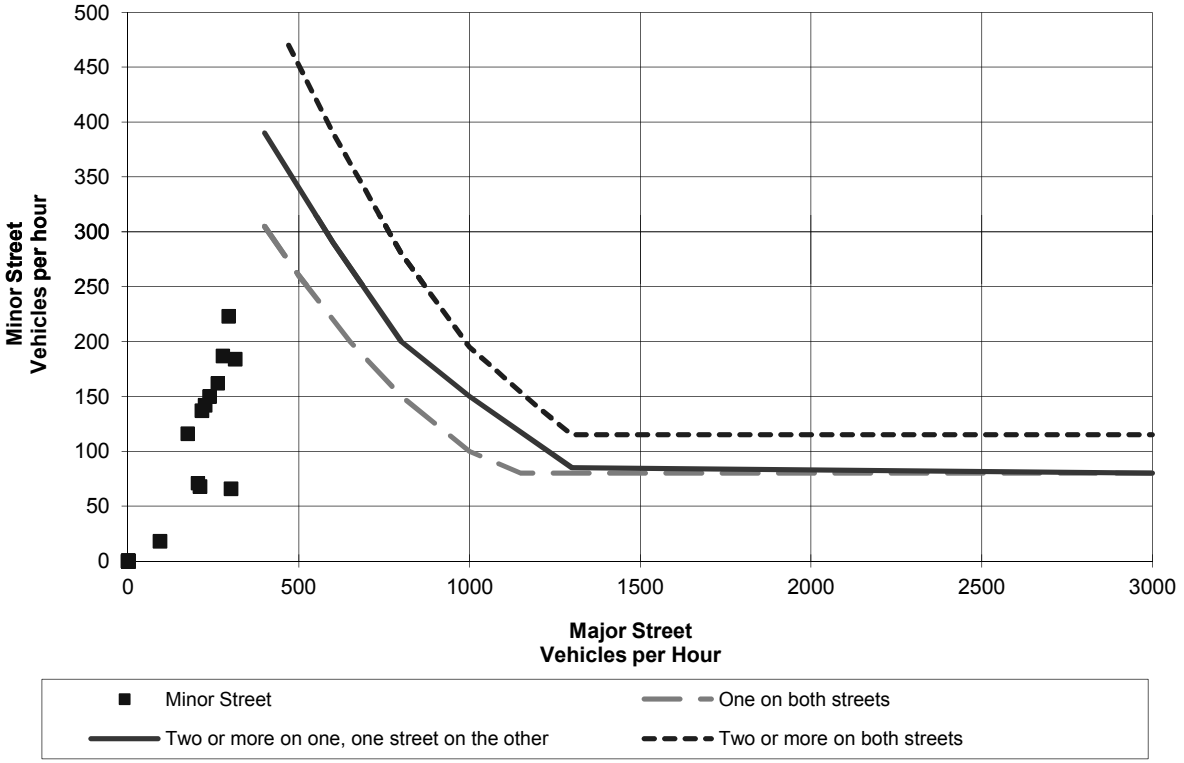
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.4

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 223 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette

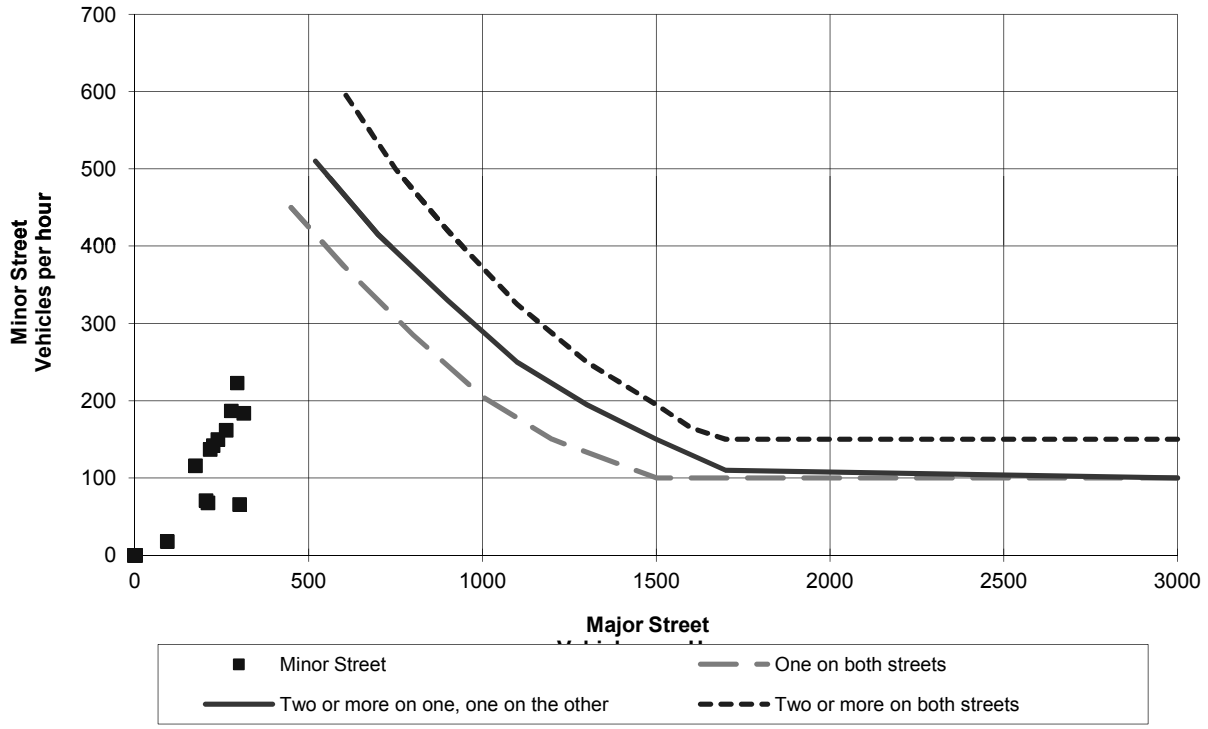
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Fisher Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 45 Fourth Fisher Warrant EX Vol

Major Street: Fisher Street Minor Street: Fourth Street

Intersection: Fourth Street and Fisher Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major WB	Major EB	Minor SB	Minor NB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	49	32	17	1	81	17	99
07:00 - 08:00	128	121	87	5	249	87	341
08:00 - 09:00	80	111	63	1	191	63	255
09:00 - 10:00	67	114	71	0	181	71	252
10:00 - 11:00	87	90	70	2	177	70	249
11:00 - 12:00	96	119	98	2	215	98	315
12:00 - 13:00	107	151	112	4	258	112	374
13:00 - 14:00	131	140	109	5	271	109	385
14:00 - 15:00	132	135	147	5	267	147	419
15:00 - 16:00	116	127	152	3	243	152	398
16:00 - 17:00	98	161	176	3	259	176	438
17:00 - 18:00	96	150	165	1	246	165	412
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1187**	**1451**	**1267**	**32**	**2638**	**1267**	**3937**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	81	17	No
07:00 - 08:00	249	87	No
08:00 - 09:00	191	63	No
09:00 - 10:00	181	71	No
10:00 - 11:00	177	70	No
11:00 - 12:00	215	98	No
12:00 - 13:00	258	112	No
13:00 - 14:00	271	109	No
14:00 - 15:00	267	147	No
15:00 - 16:00	243	152	No
16:00 - 17:00	259	176	No
17:00 - 18:00	246	165	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

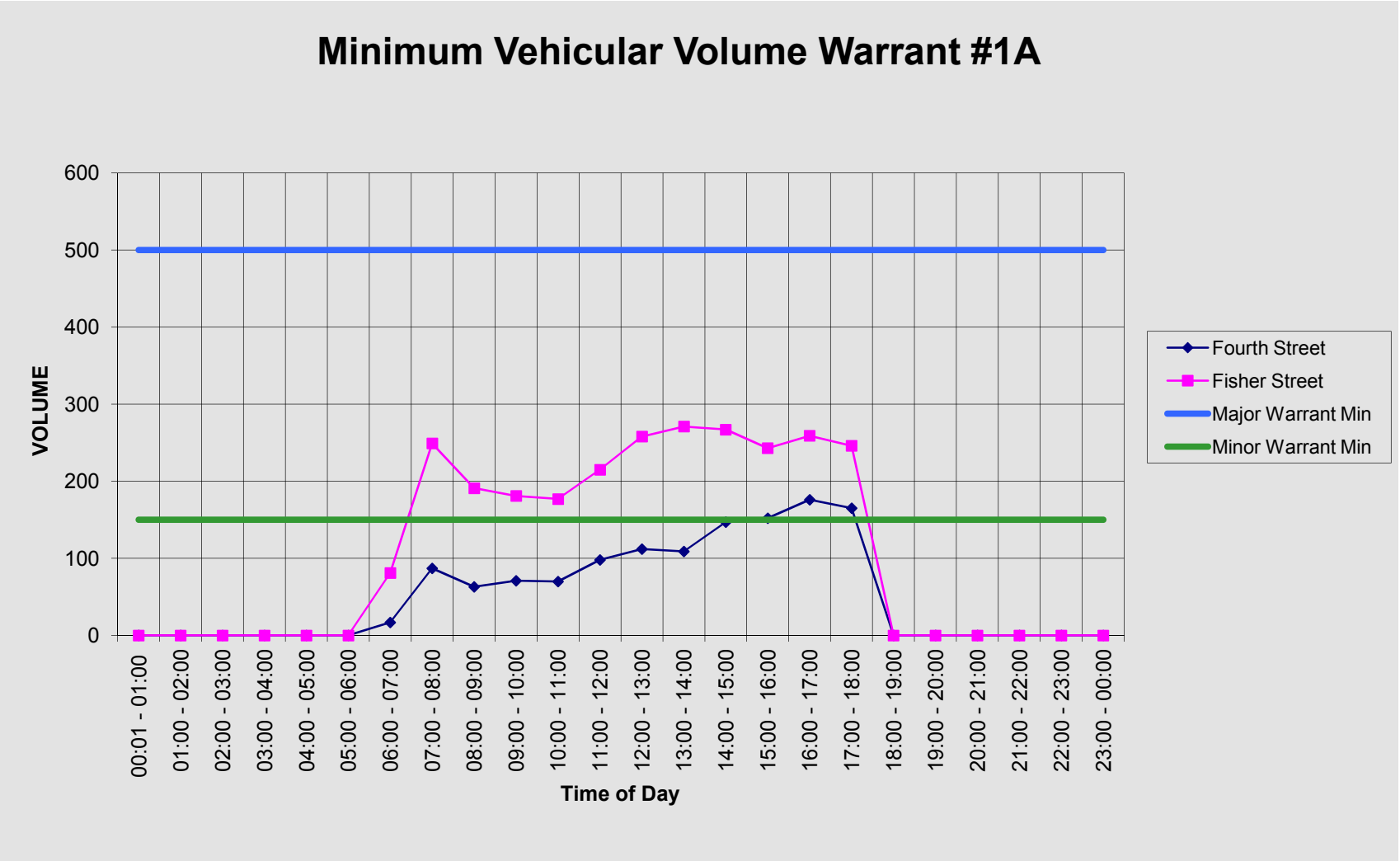
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Fourth Street and Fisher Street
Spot Number: 45 Fourth Fisher Warrant EX Vol

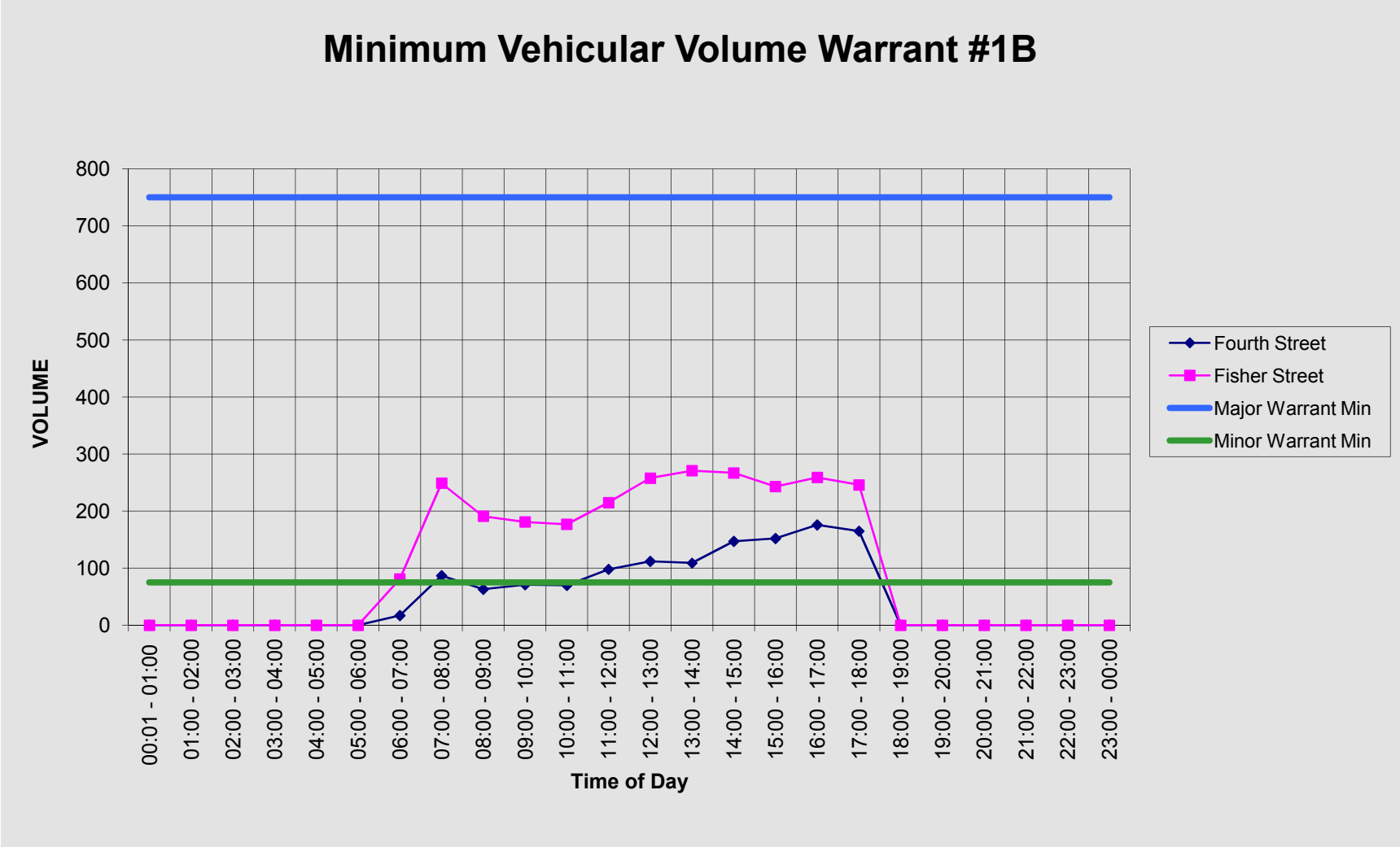
Major Street: Fisher Street
Minor Street: Fourth Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Fourth Street and Fisher Street
Spot Number: 45 Fourth Fisher Warrant EX Vol

Major Street: Fisher Street
Minor Street: Fourth Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette

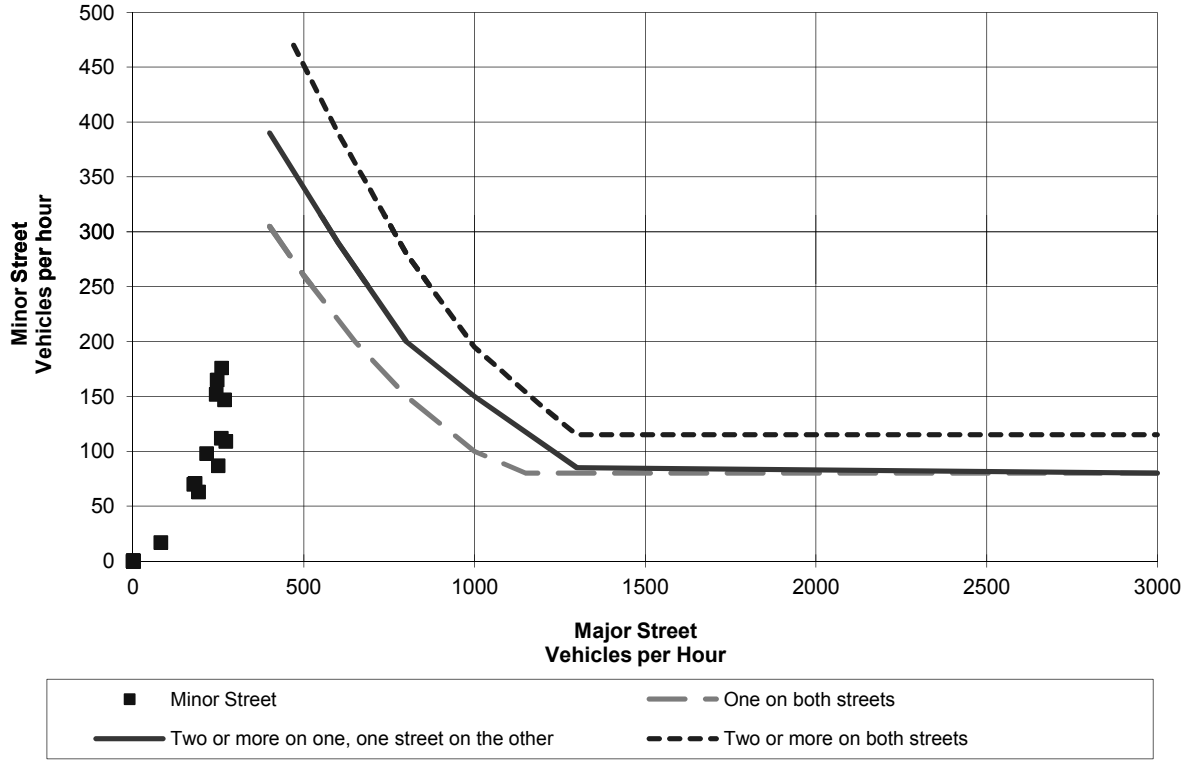
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.5

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 176 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette

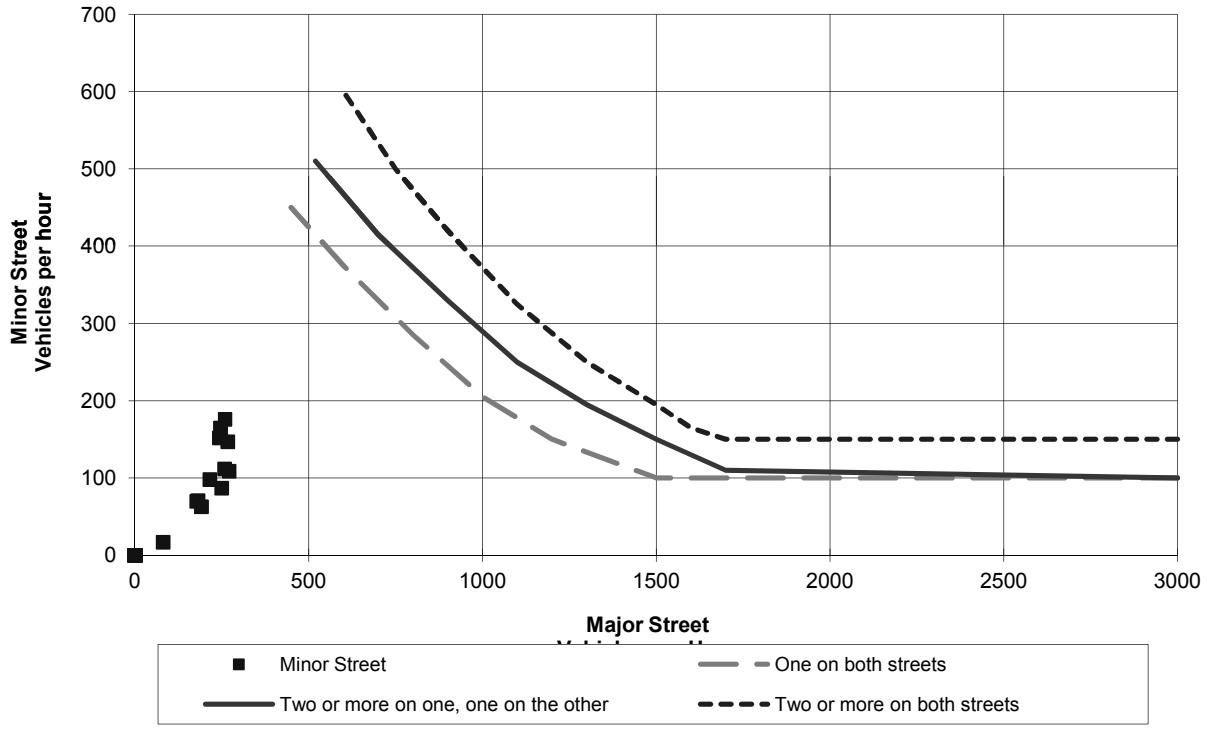
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fourth Street and Fisher Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 46 Fifth Street and Fisher Street

Major Street: Fisher Street Minor Street: Fifth Street

Intersection: Fifth Street and Fisher Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/8/2013

	Major WB	Major EB	Minor SB	Minor NB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	29	55	4	1	84	4	89
07:00 - 08:00	84	189	34	7	273	34	314
08:00 - 09:00	91	133	28	6	224	28	258
09:00 - 10:00	69	138	22	18	207	22	247
10:00 - 11:00	106	116	29	11	222	29	262
11:00 - 12:00	126	123	50	16	249	50	315
12:00 - 13:00	163	148	38	21	311	38	370
13:00 - 14:00	153	152	42	17	305	42	364
14:00 - 15:00	170	158	46	29	328	46	403
15:00 - 16:00	161	140	34	21	301	34	356
16:00 - 17:00	160	168	55	22	328	55	405
17:00 - 18:00	145	162	43	5	307	43	355
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1457**	**1682**	**425**	**174**	**3139**	**425**	**3738**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? NO

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	84	4	No
07:00 - 08:00	273	34	No
08:00 - 09:00	224	28	No
09:00 - 10:00	207	22	No
10:00 - 11:00	222	29	No
11:00 - 12:00	249	50	No
12:00 - 13:00	311	38	No
13:00 - 14:00	305	42	No
14:00 - 15:00	328	46	No
15:00 - 16:00	301	34	No
16:00 - 17:00	328	55	No
17:00 - 18:00	307	43	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

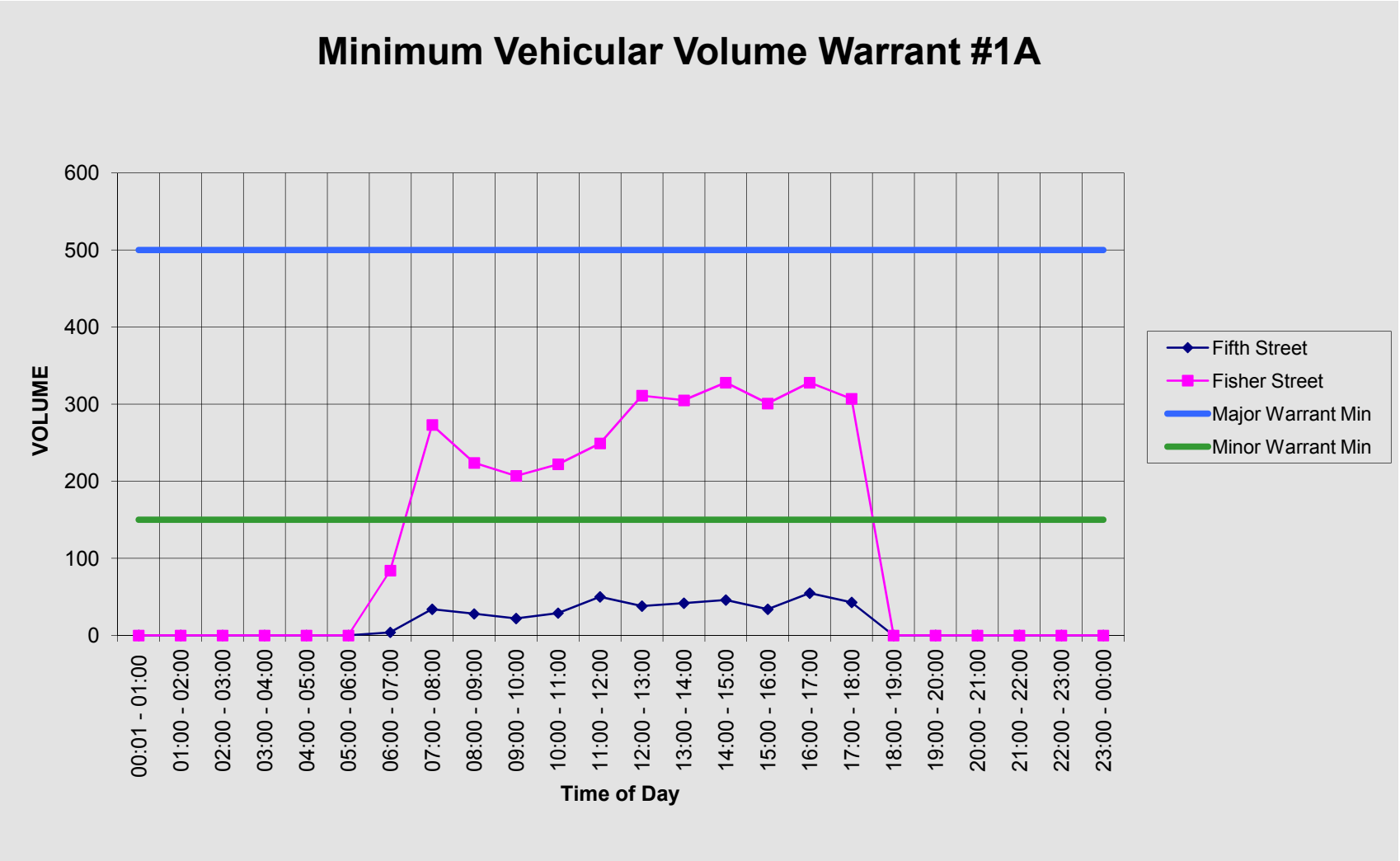
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? NO

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Fifth Street and Fisher Street
Spot Number: 46 Fifth Street and Fisher Street

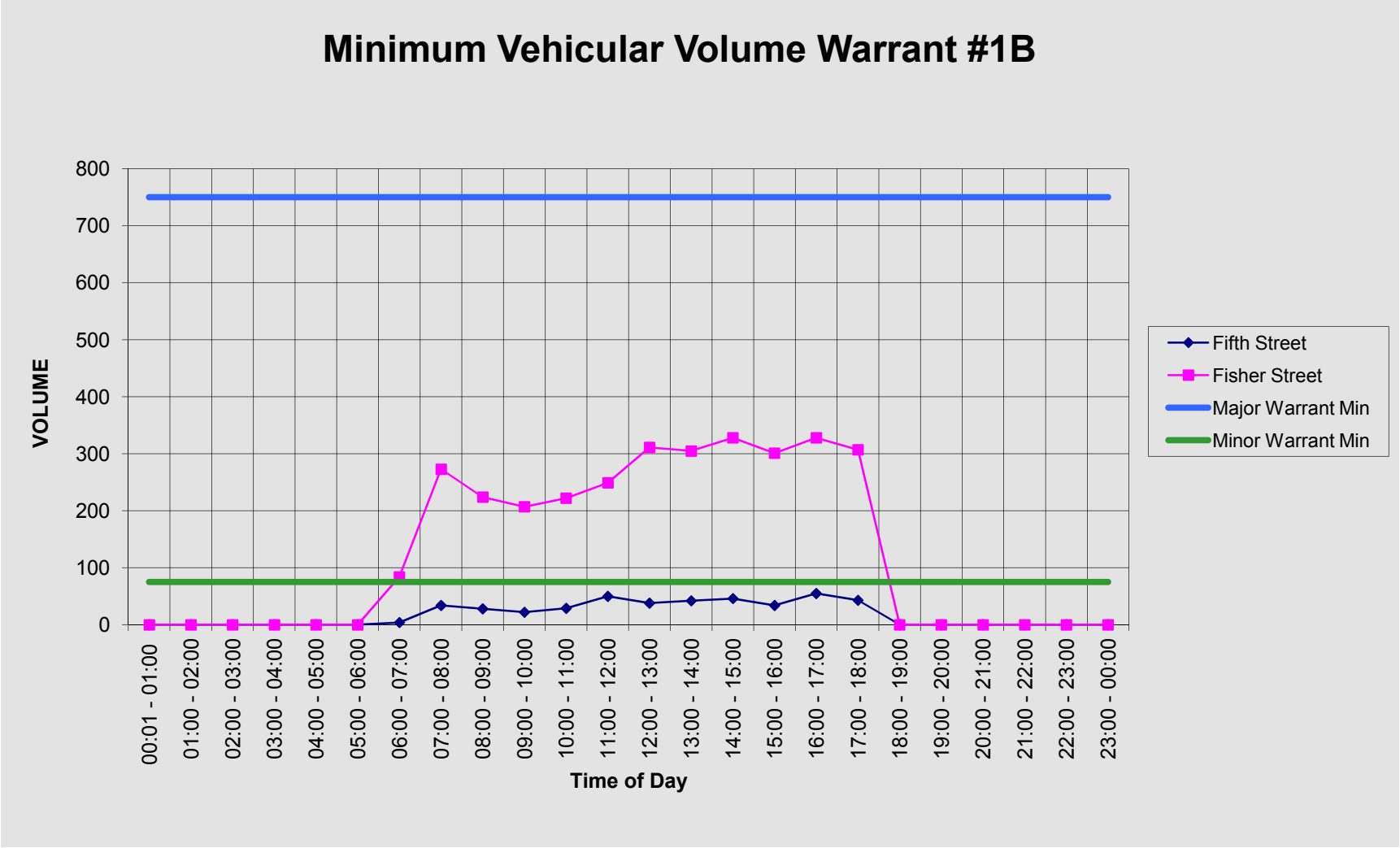
Major Street: Fisher Street
Minor Street: Fifth Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Fifth Street and Fisher Street
Spot Number: 46 Fifth Street and Fisher Street

Major Street: Fisher Street
Minor Street: Fifth Street
Date of Survey: 10/08/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette

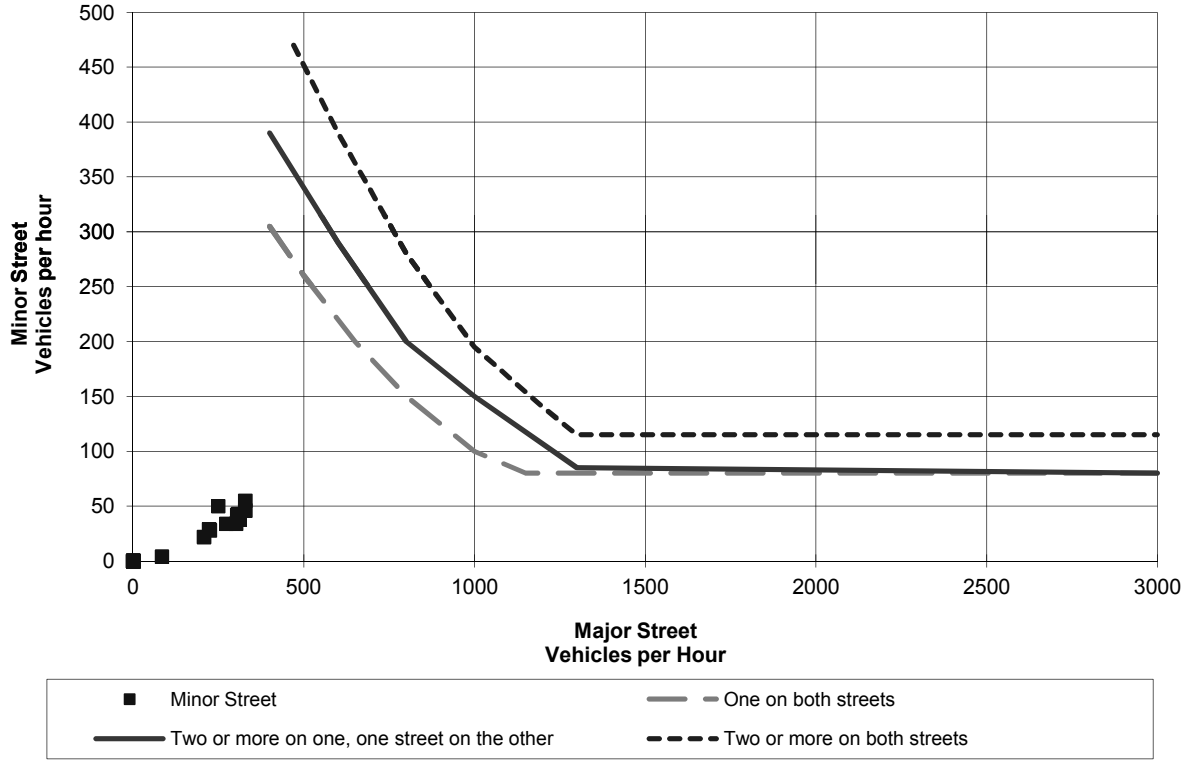
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 55 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette

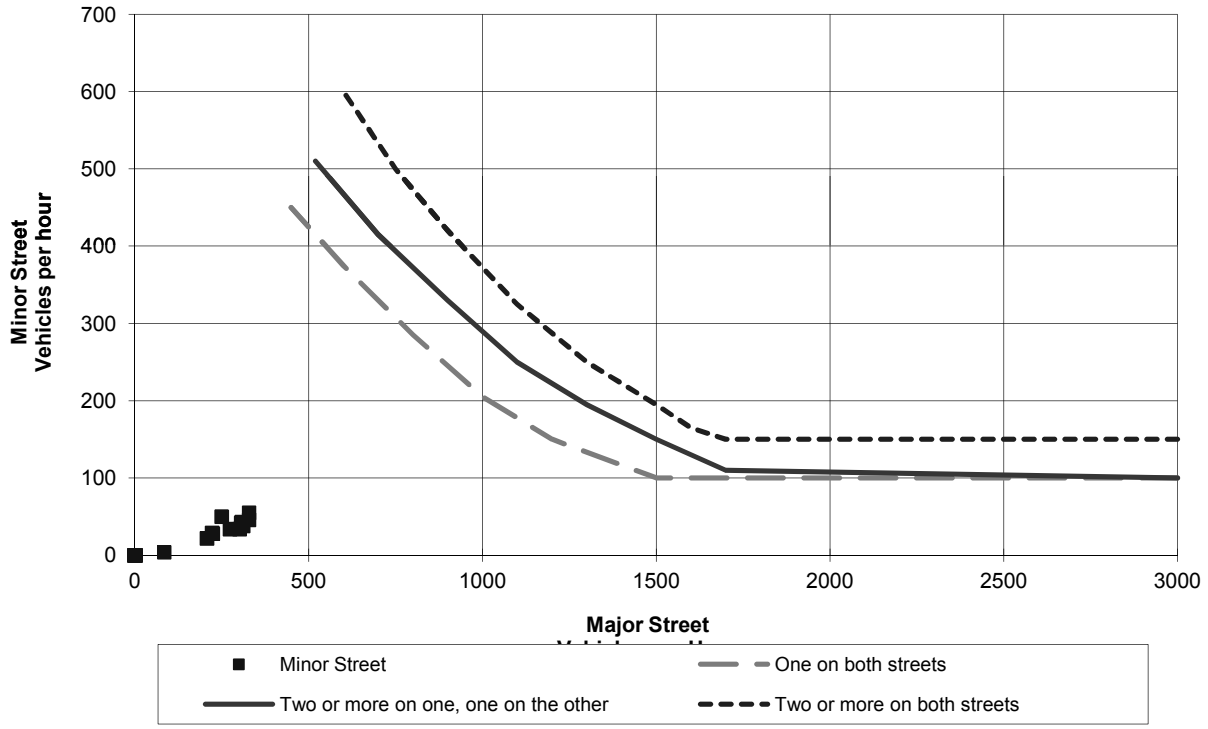
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Fifth Street and Fisher Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 47 Altamont Street and Fisher Street

Major Street: Fisher Street Minor Street: Altamont Street

Intersection: Altamont Street and Fisher Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major WB	Major EB	Minor SB	Minor NB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	24	52	2	51	76	51	129
07:00 - 08:00	81	197	3	244	278	244	525
08:00 - 09:00	97	131	10	134	228	134	372
09:00 - 10:00	111	110	5	101	221	101	327
10:00 - 11:00	128	120	4	96	248	96	348
11:00 - 12:00	184	155	6	90	339	90	435
12:00 - 13:00	203	198	10	115	401	115	526
13:00 - 14:00	177	142	5	104	319	104	428
14:00 - 15:00	230	182	15	149	412	149	576
15:00 - 16:00	200	176	15	132	376	132	523
16:00 - 17:00	200	194	12	97	394	97	503
17:00 - 18:00	193	175	15	135	368	135	518
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1828**	**1832**	**102**	**1448**	**3660**	**1448**	**5210**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	76	51	No
07:00 - 08:00	278	244	No
08:00 - 09:00	228	134	No
09:00 - 10:00	221	101	No
10:00 - 11:00	248	96	No
11:00 - 12:00	339	90	No
12:00 - 13:00	401	115	No
13:00 - 14:00	319	104	No
14:00 - 15:00	412	149	No
15:00 - 16:00	376	132	No
16:00 - 17:00	394	97	No
17:00 - 18:00	368	135	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

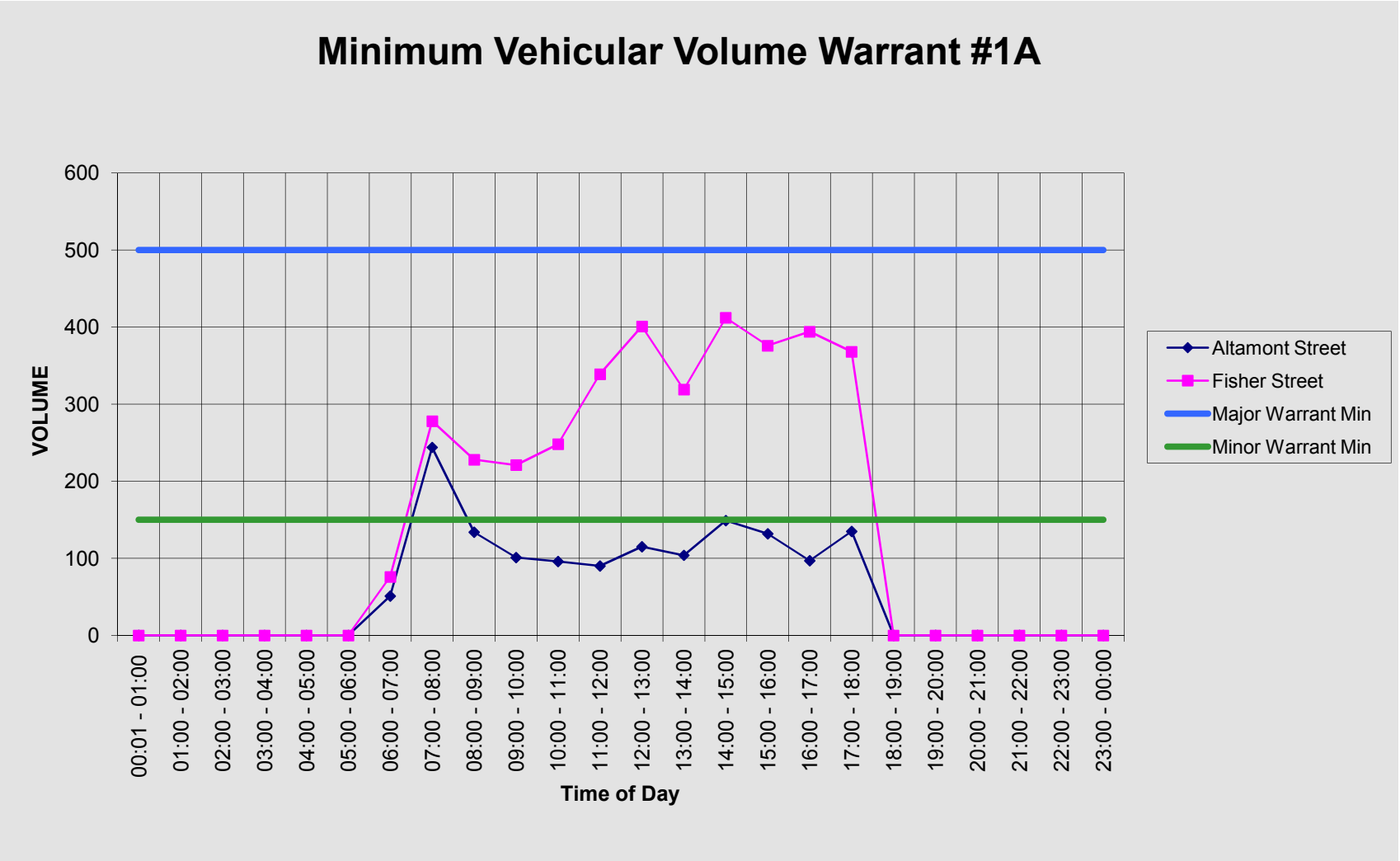
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Altamont Street and Fisher Street
Spot Number: 47 Altamont Street and Fisher Street

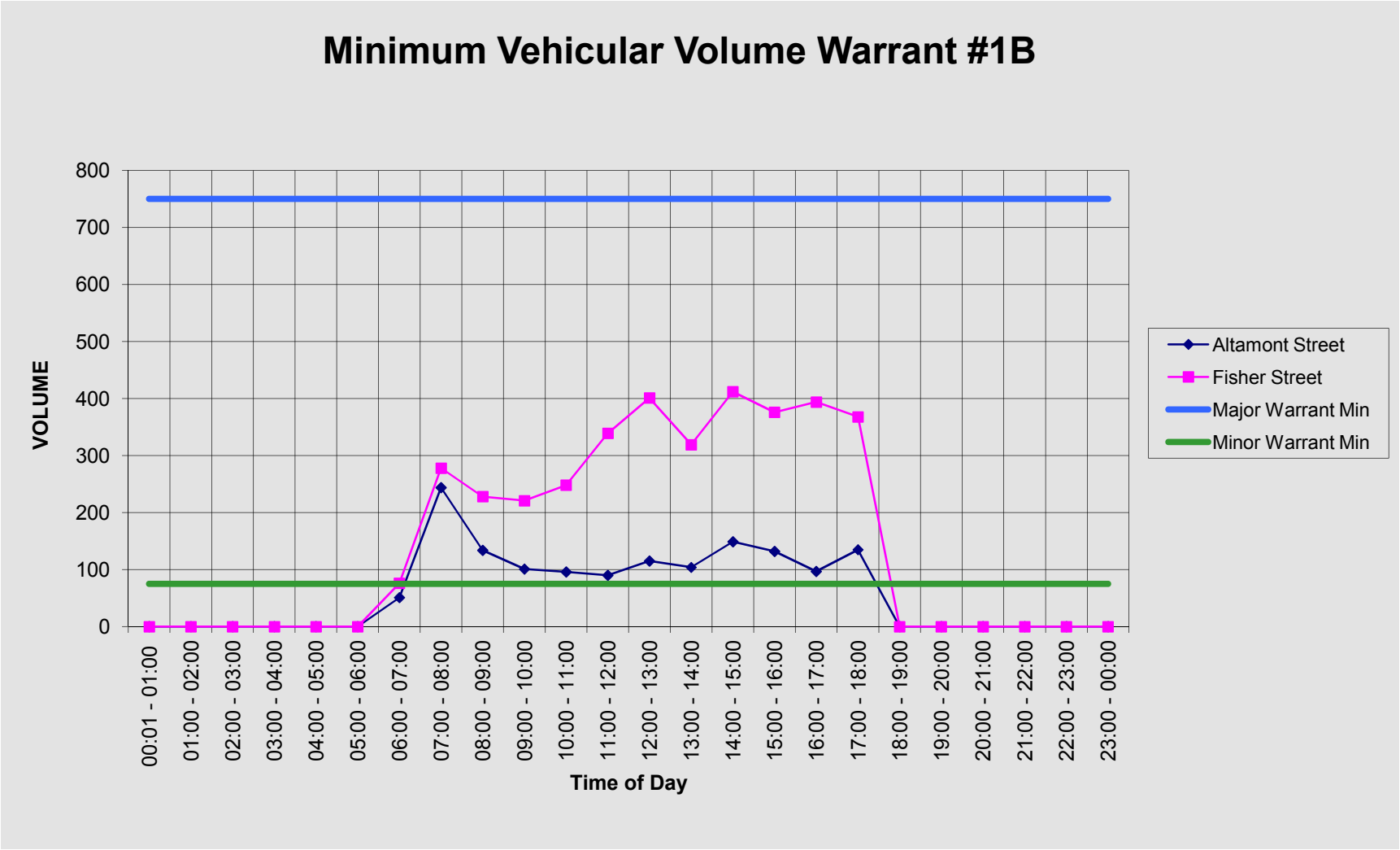
Major Street: Fisher Street
Minor Street: Altamont Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Altamont Street and Fisher Street
Spot Number: 47 Altamont Street and Fisher Street

Major Street: Fisher Street
Minor Street: Altamont Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette

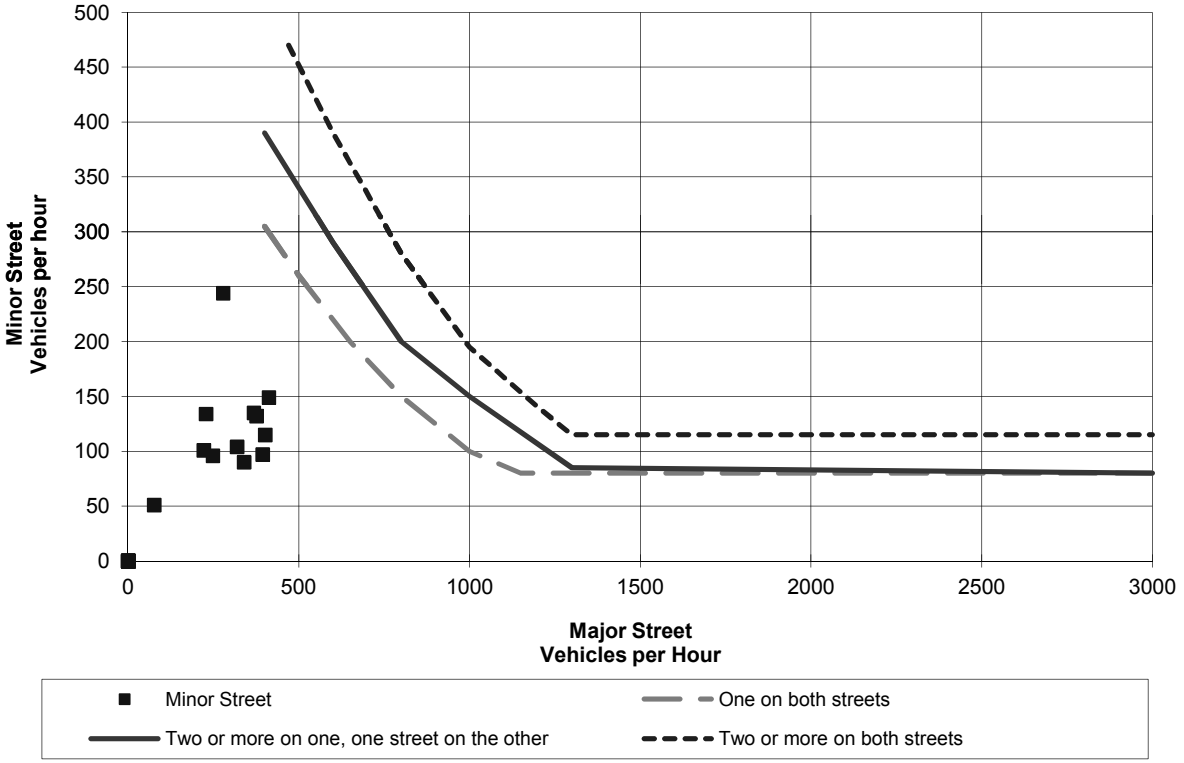
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.4

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 244 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 07:00 - 08:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette

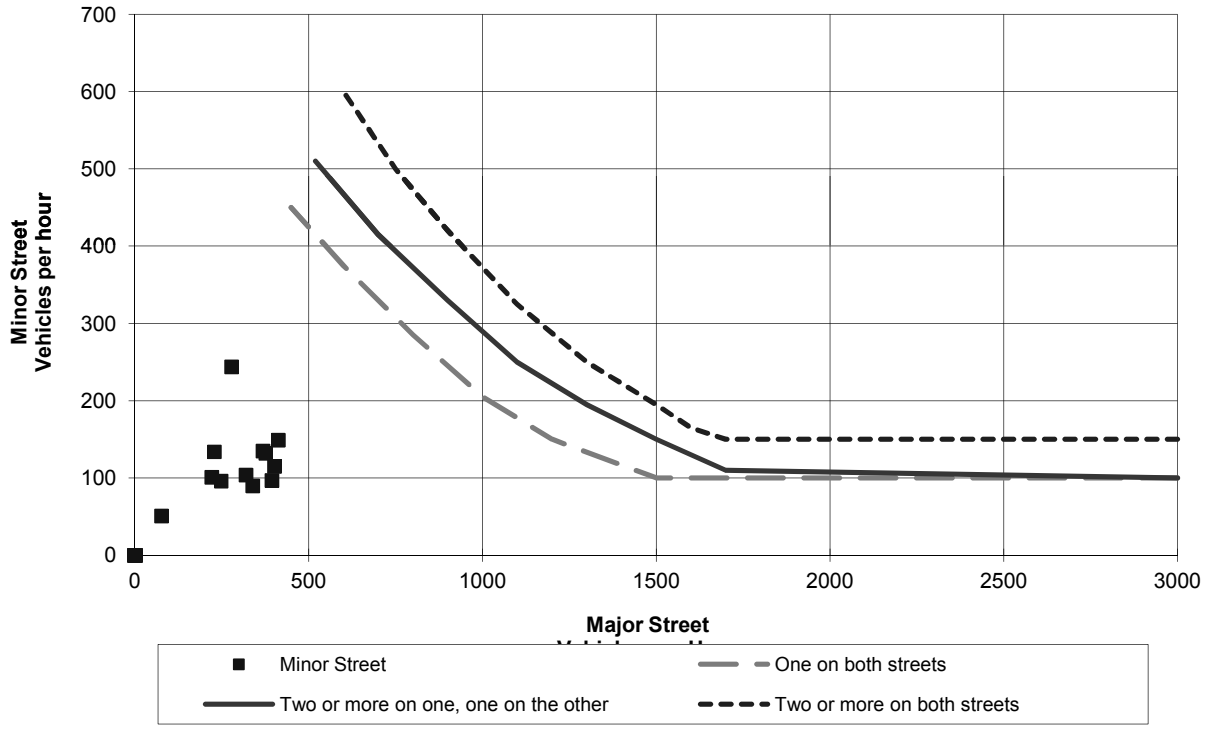
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Fisher Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**
(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 48 Seventh Street and Fisher Street

Major Street: Seventh Street Minor Street: Fisher Street

Intersection: Seventh Street and Fisher Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	49	156	55	2	205	55	262
07:00 - 08:00	160	400	182	3	560	182	745
08:00 - 09:00	121	291	163	9	412	163	584
09:00 - 10:00	124	221	151	3	345	151	499
10:00 - 11:00	120	203	166	6	323	166	495
11:00 - 12:00	179	205	179	5	384	179	568
12:00 - 13:00	219	252	223	3	471	223	697
13:00 - 14:00	173	228	194	3	401	194	598
14:00 - 15:00	270	231	252	1	501	252	754
15:00 - 16:00	299	249	220	5	548	220	773
16:00 - 17:00	348	253	214	2	601	214	817
17:00 - 18:00	325	238	202	5	563	202	770
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2387**	**2927**	**2201**	**47**	**5314**	**2201**	**7562**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	205	55	No
07:00 - 08:00	560	182	Yes
08:00 - 09:00	412	163	No
09:00 - 10:00	345	151	No
10:00 - 11:00	323	166	No
11:00 - 12:00	384	179	No
12:00 - 13:00	471	223	No
13:00 - 14:00	401	194	No
14:00 - 15:00	501	252	Yes
15:00 - 16:00	548	220	Yes
16:00 - 17:00	601	214	Yes
17:00 - 18:00	563	202	Yes
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

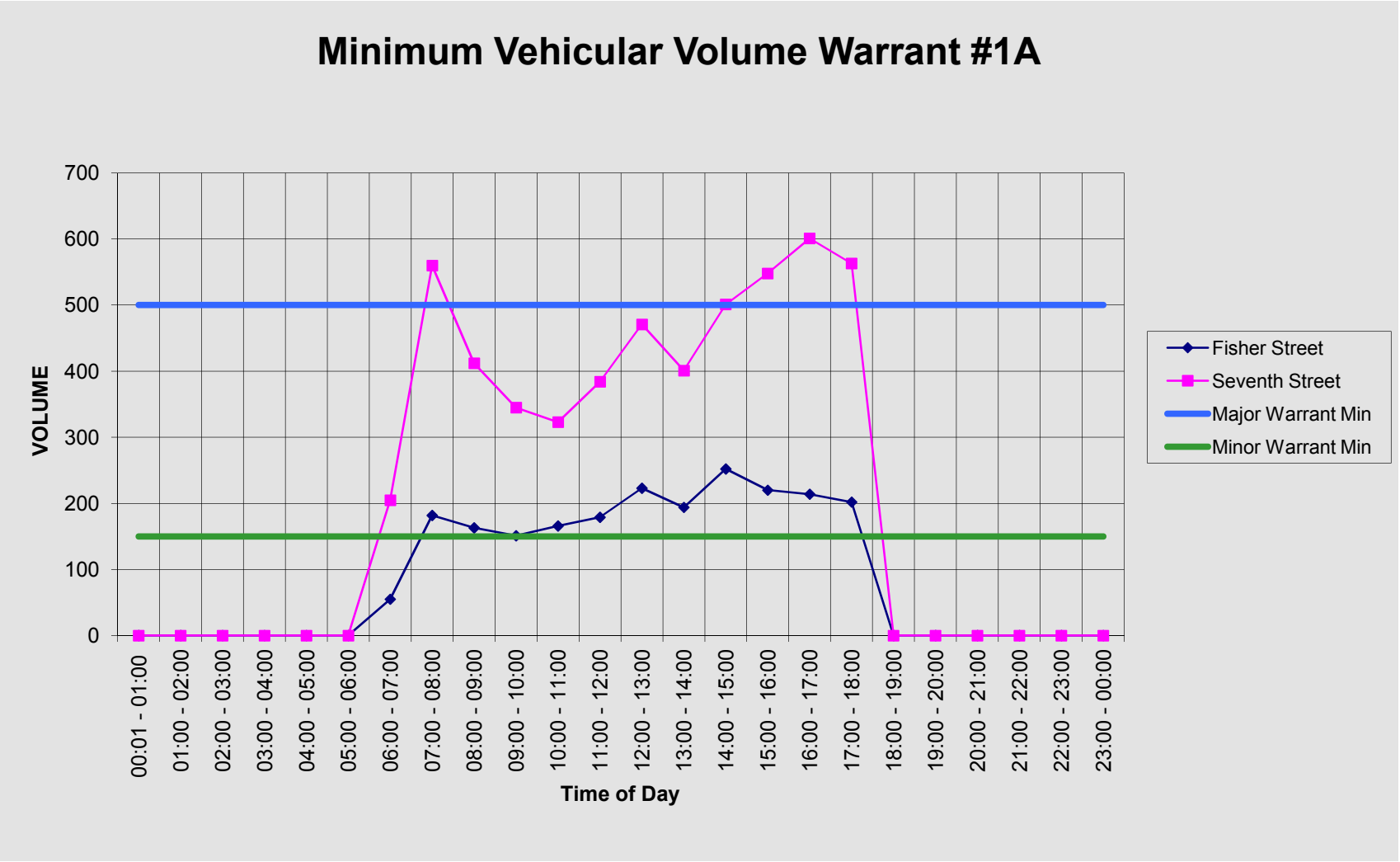
Total Hours Met: 5

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Seventh Street and Fisher Street
Spot Number: 48 Seventh Street and Fisher Street

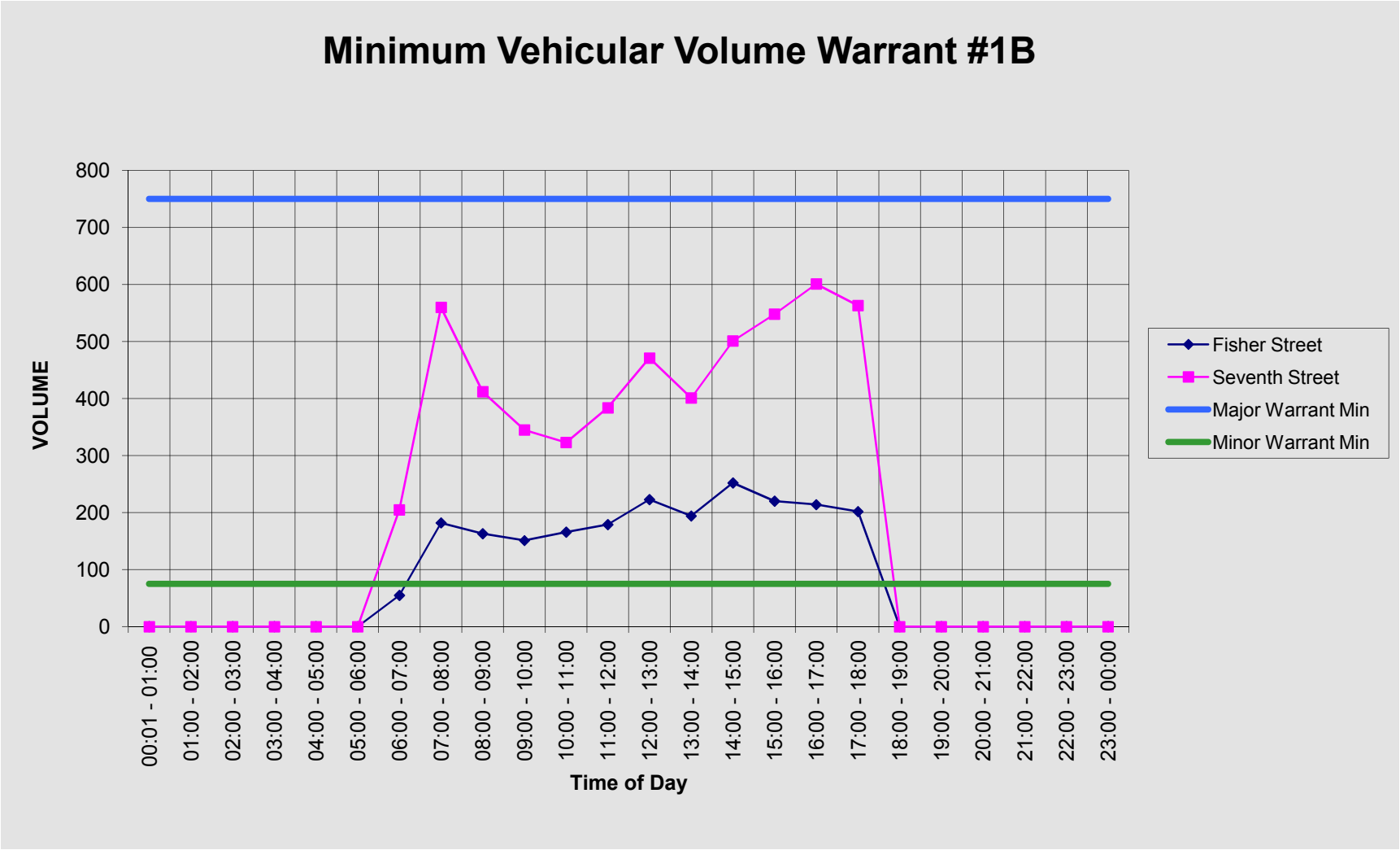
Major Street: Seventh Street
Minor Street: Fisher Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 5

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Seventh Street and Fisher Street
Spot Number: 48 Seventh Street and Fisher Street

Major Street: Seventh Street
Minor Street: Fisher Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette

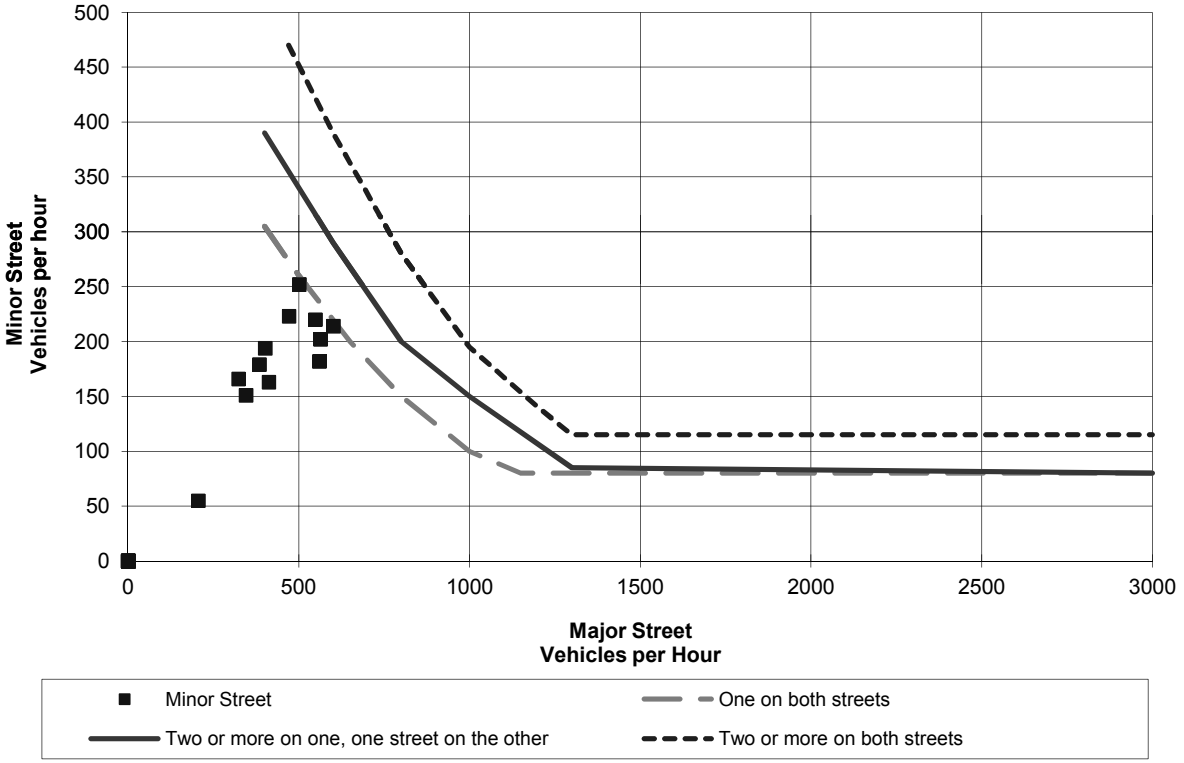
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 252 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 14:00 - 15:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette

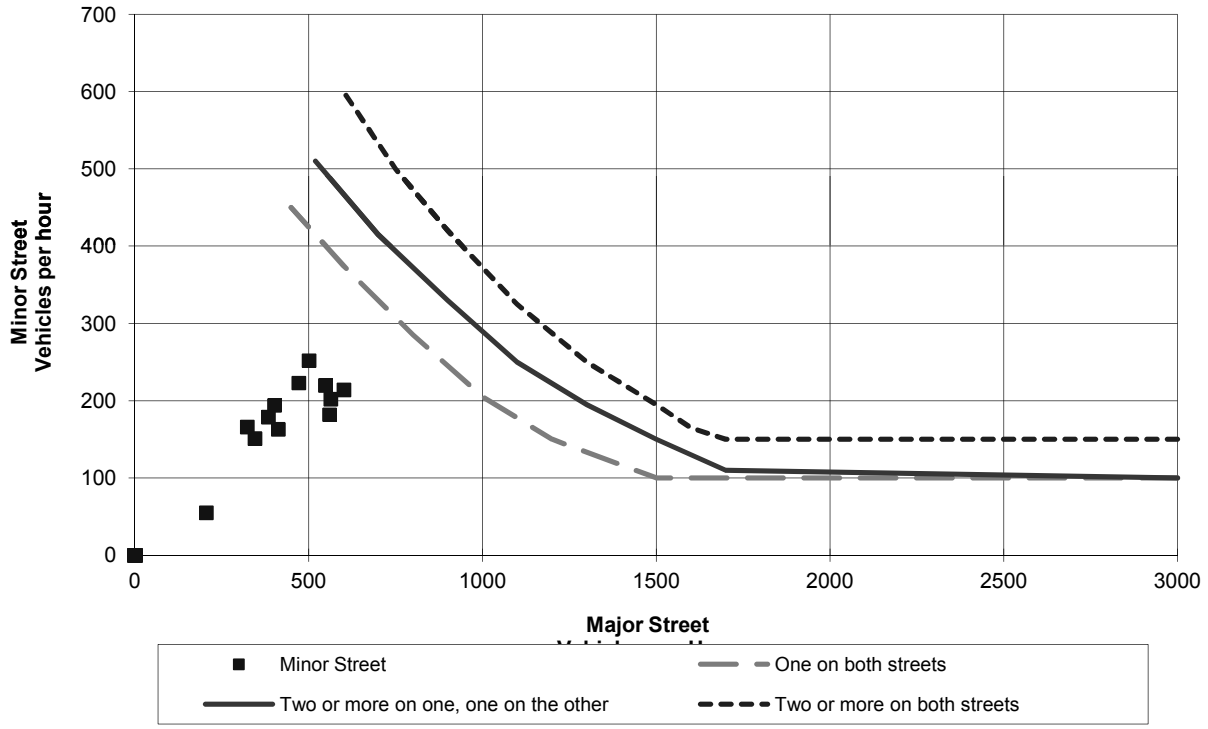
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Seventh Street and Fisher Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 51 Divisions Street and Genesee Street

Major Street: Division Street Minor Street: Genesee Street

Intersection: Division Street and Genesee Street

City: Marquette

Date Performed: 2/11/2-14 Performed By: KMM

Date Volumes Collected: 12/4/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	6	63	20	5	69	20	94
07:00 - 08:00	20	215	87	19	235	87	341
08:00 - 09:00	18	142	65	14	160	65	239
09:00 - 10:00	13	124	79	12	137	79	228
10:00 - 11:00	11	118	94	11	129	94	234
11:00 - 12:00	9	149	129	20	158	129	307
12:00 - 13:00	17	142	121	21	159	121	301
13:00 - 14:00	19	137	112	16	156	112	284
14:00 - 15:00	20	156	155	19	176	155	350
15:00 - 16:00	21	172	156	17	193	156	366
16:00 - 17:00	25	207	176	19	232	176	427
17:00 - 18:00	32	152	192	22	184	192	398
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**211**	**1777**	**1386**	**195**	**1988**	**1386**	**3569**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette
Date 2/11/2-14 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	69	20	No
07:00 - 08:00	235	87	No
08:00 - 09:00	160	65	No
09:00 - 10:00	137	79	No
10:00 - 11:00	129	94	No
11:00 - 12:00	158	129	No
12:00 - 13:00	159	121	No
13:00 - 14:00	156	112	No
14:00 - 15:00	176	155	No
15:00 - 16:00	193	156	No
16:00 - 17:00	232	176	No
17:00 - 18:00	184	192	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

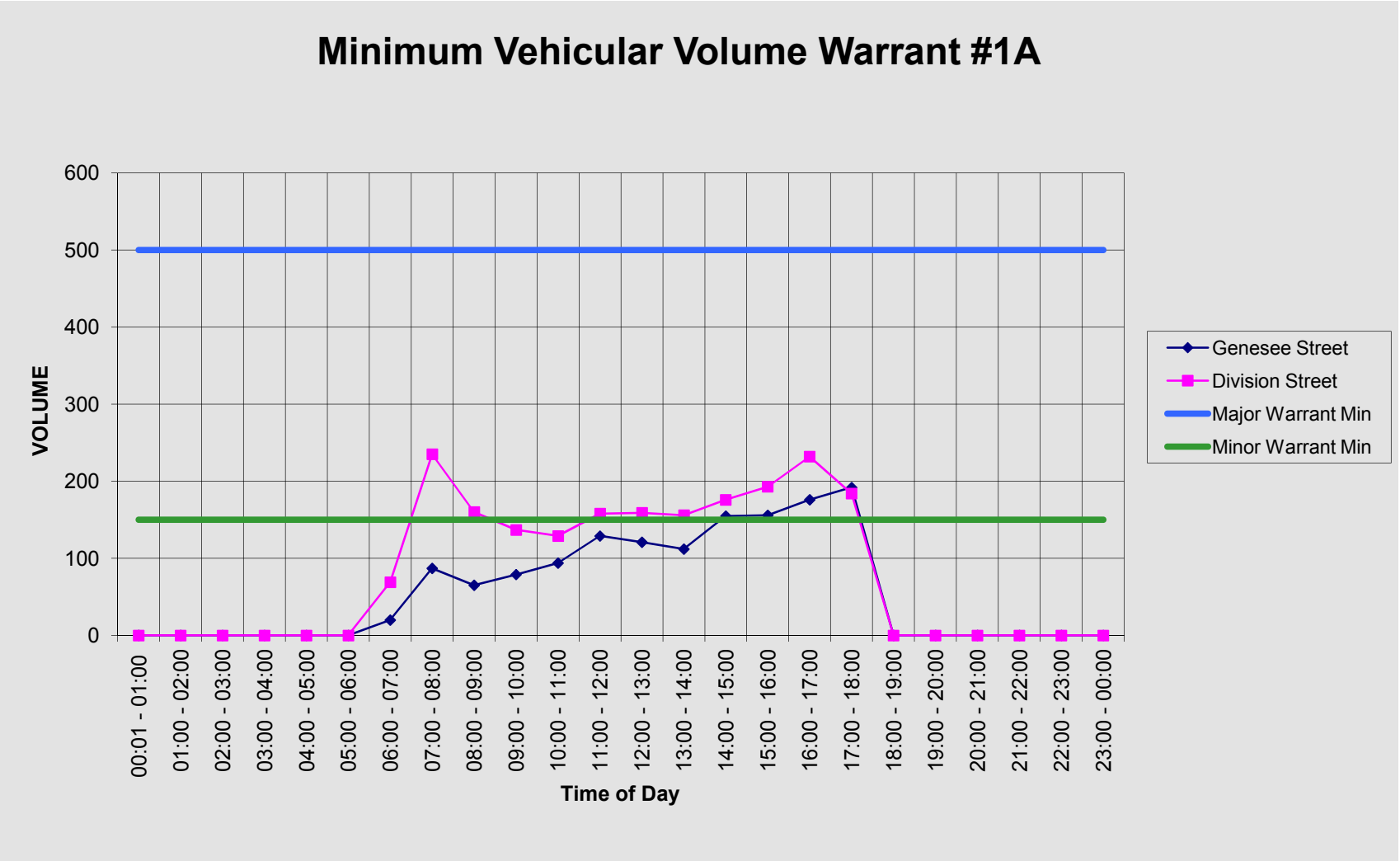
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Division Street and Genesee Street
Spot Number: 51 Divisions Street and Genesee Street

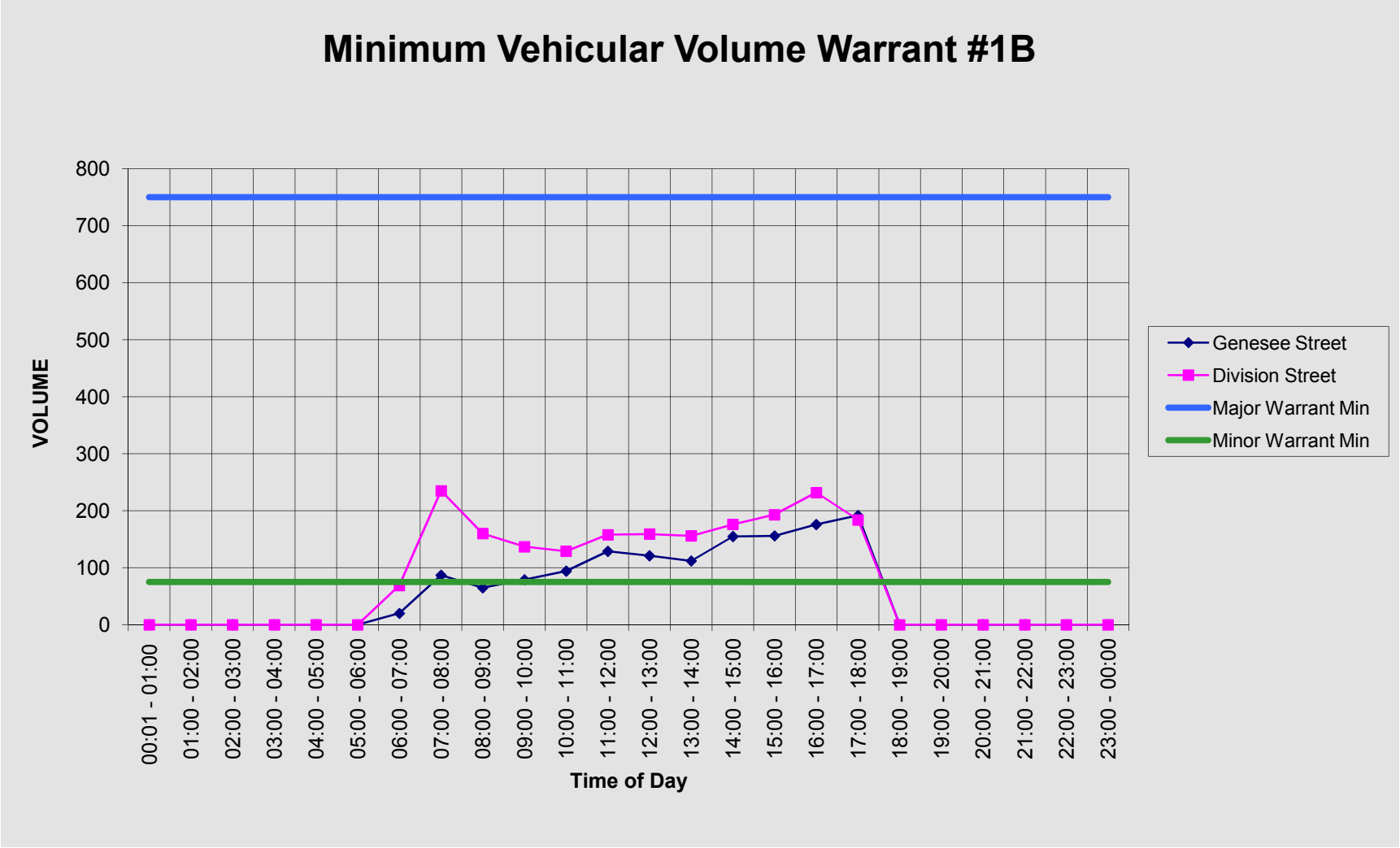
Major Street: Division Street
Minor Street: Genesee Street
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Division Street and Genesee Street
Spot Number: 51 Divisions Street and Genesee Street

Major Street: Division Street
Minor Street: Genesee Street
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette

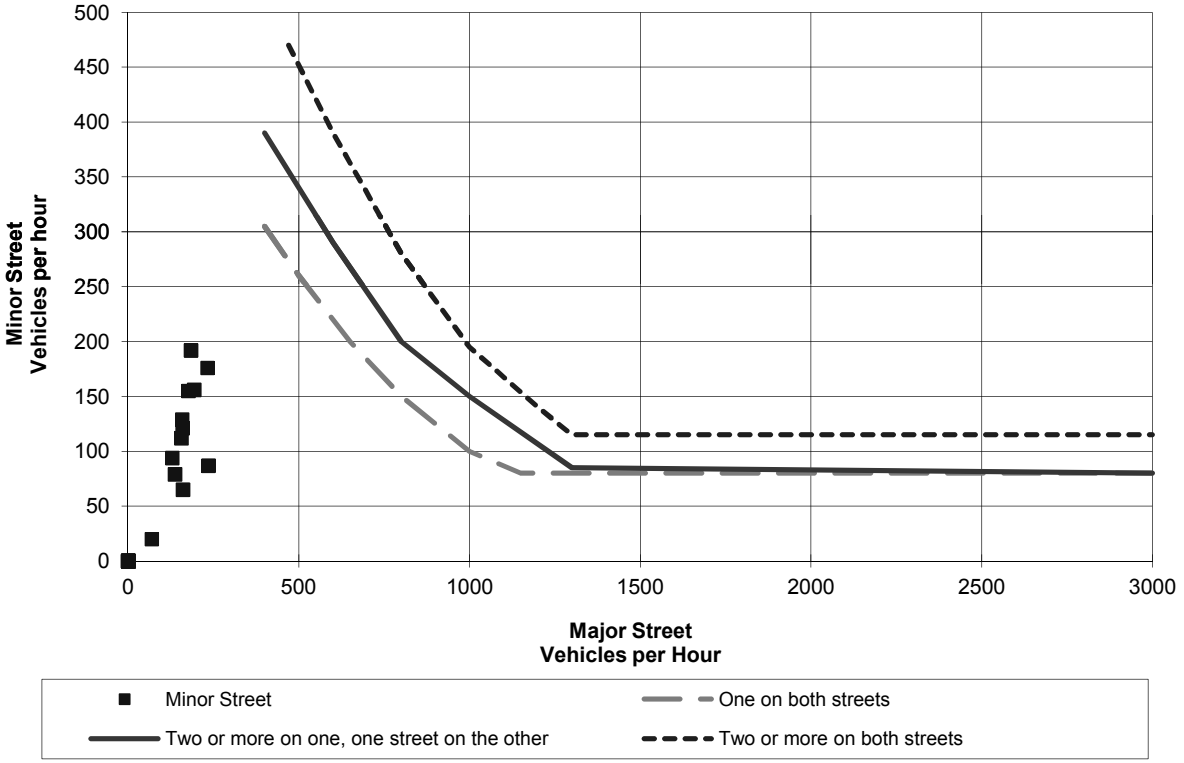
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.3

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 192 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette

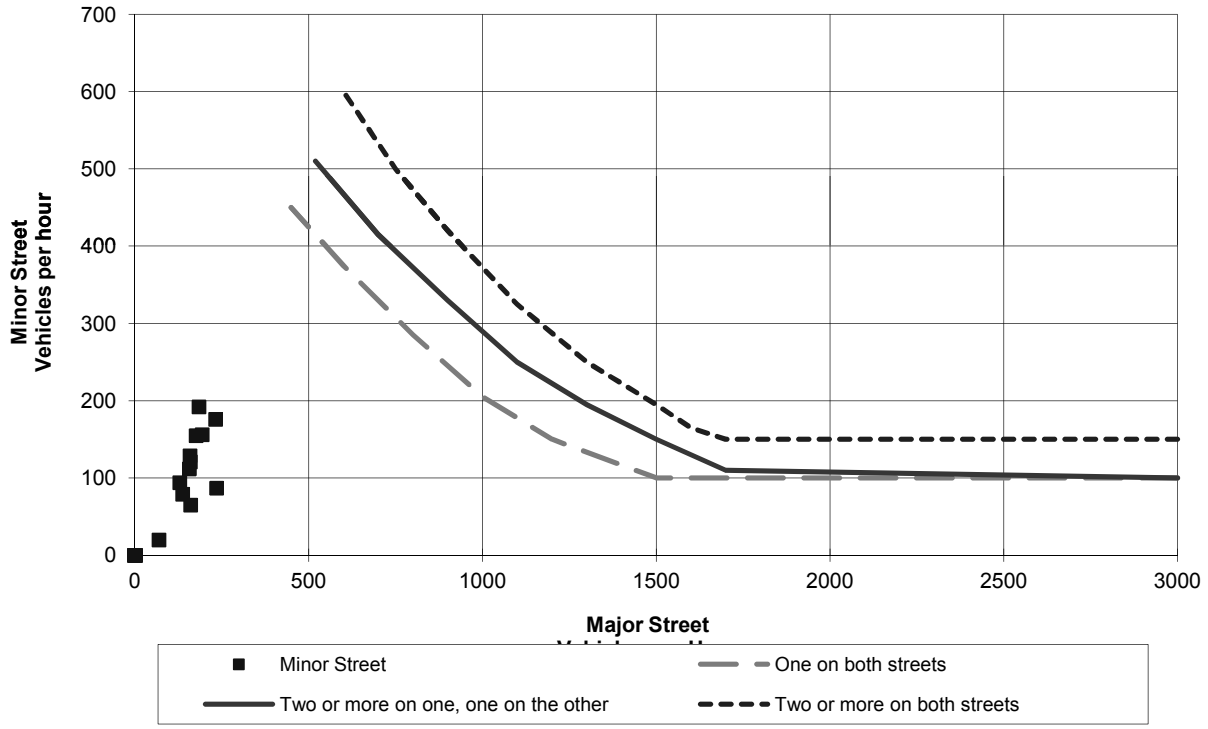
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Genesee Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 52 Altamont Street and Genesee Street

Major Street: Altamont Street Minor Street: Genesee Street

Intersection: Altamont Street and Genesee Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	14	38	3	1	52	3	56
07:00 - 08:00	136	215	11	7	351	11	369
08:00 - 09:00	44	87	9	4	131	9	144
09:00 - 10:00	42	65	11	2	107	11	120
10:00 - 11:00	54	53	18	0	107	18	125
11:00 - 12:00	81	54	12	5	135	12	152
12:00 - 13:00	99	62	17	10	161	17	188
13:00 - 14:00	65	68	22	5	133	22	160
14:00 - 15:00	142	108	23	5	250	23	278
15:00 - 16:00	118	87	19	5	205	19	229
16:00 - 17:00	118	56	25	2	174	25	201
17:00 - 18:00	121	83	19	5	204	19	228
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1034**	**976**	**189**	**51**	**2010**	**189**	**2250**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	52	3	No
07:00 - 08:00	351	11	No
08:00 - 09:00	131	9	No
09:00 - 10:00	107	11	No
10:00 - 11:00	107	18	No
11:00 - 12:00	135	12	No
12:00 - 13:00	161	17	No
13:00 - 14:00	133	22	No
14:00 - 15:00	250	23	No
15:00 - 16:00	205	19	No
16:00 - 17:00	174	25	No
17:00 - 18:00	204	19	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

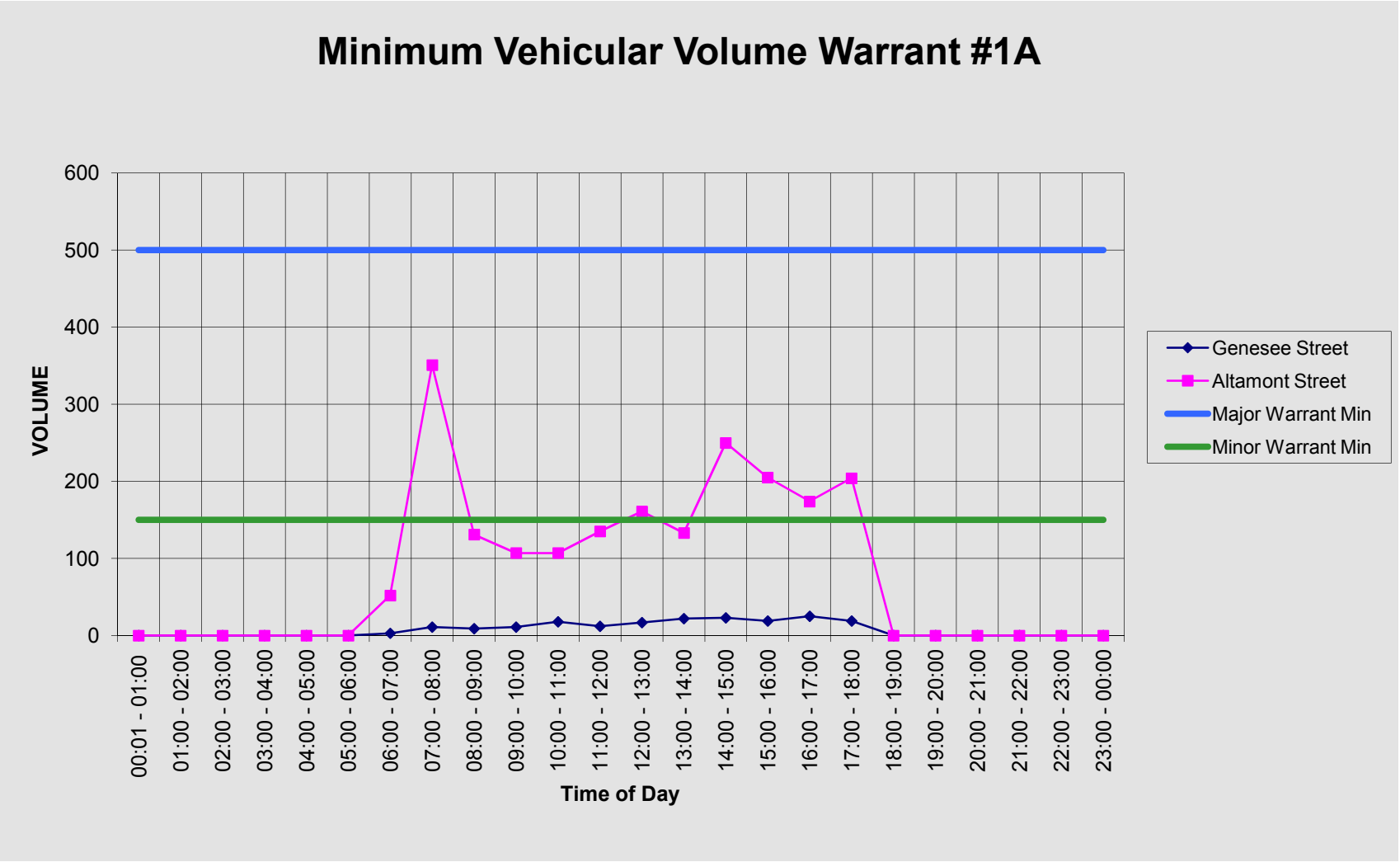
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Altamont Street and Genesee Street
Spot Number: 52 Altamont Street and Genesee Street

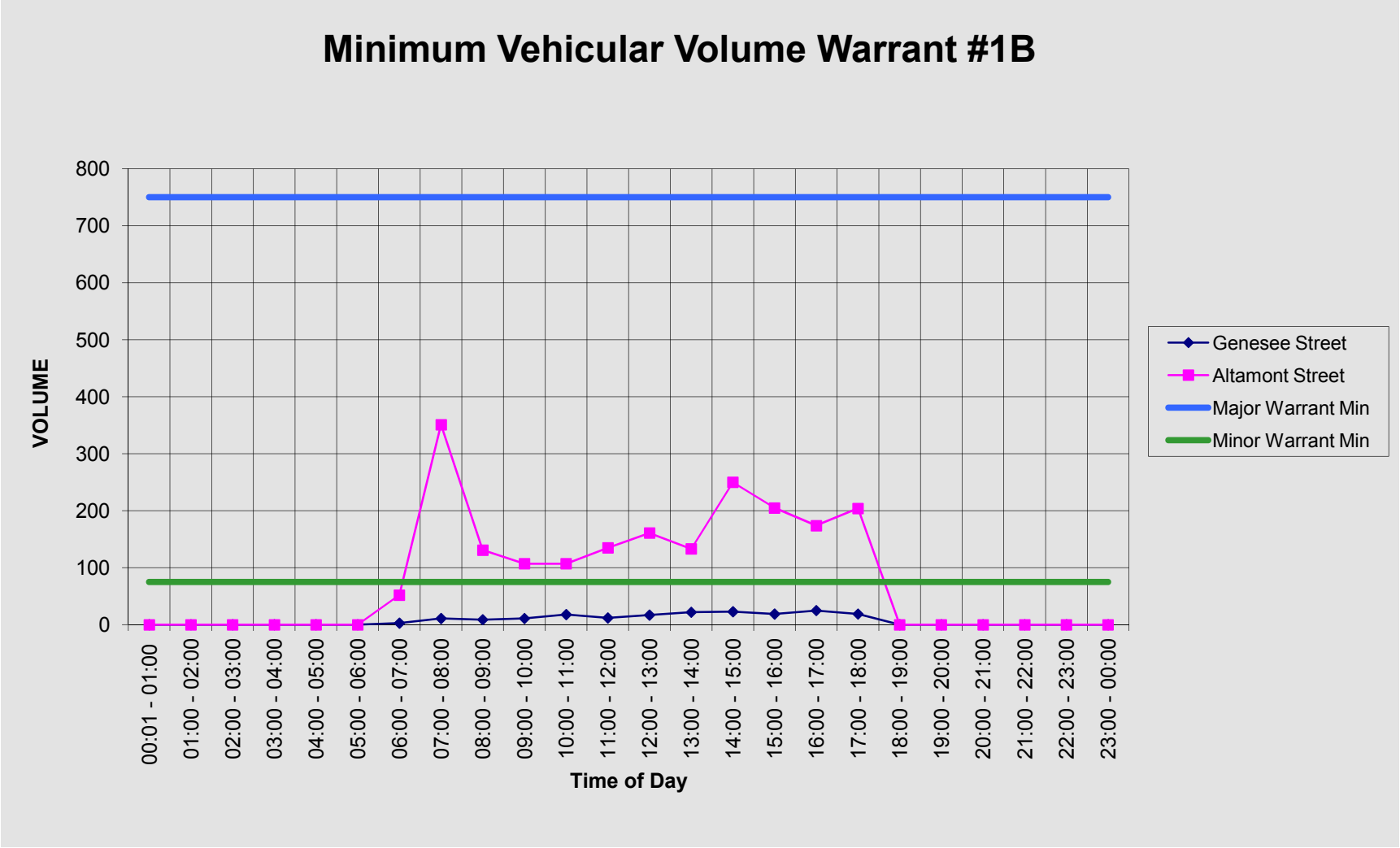
Major Street: Altamont Street
Minor Street: Genesee Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Altamont Street and Genesee Street
Spot Number: 52 Altamont Street and Genesee Street

Major Street: Altamont Street
Minor Street: Genesee Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette

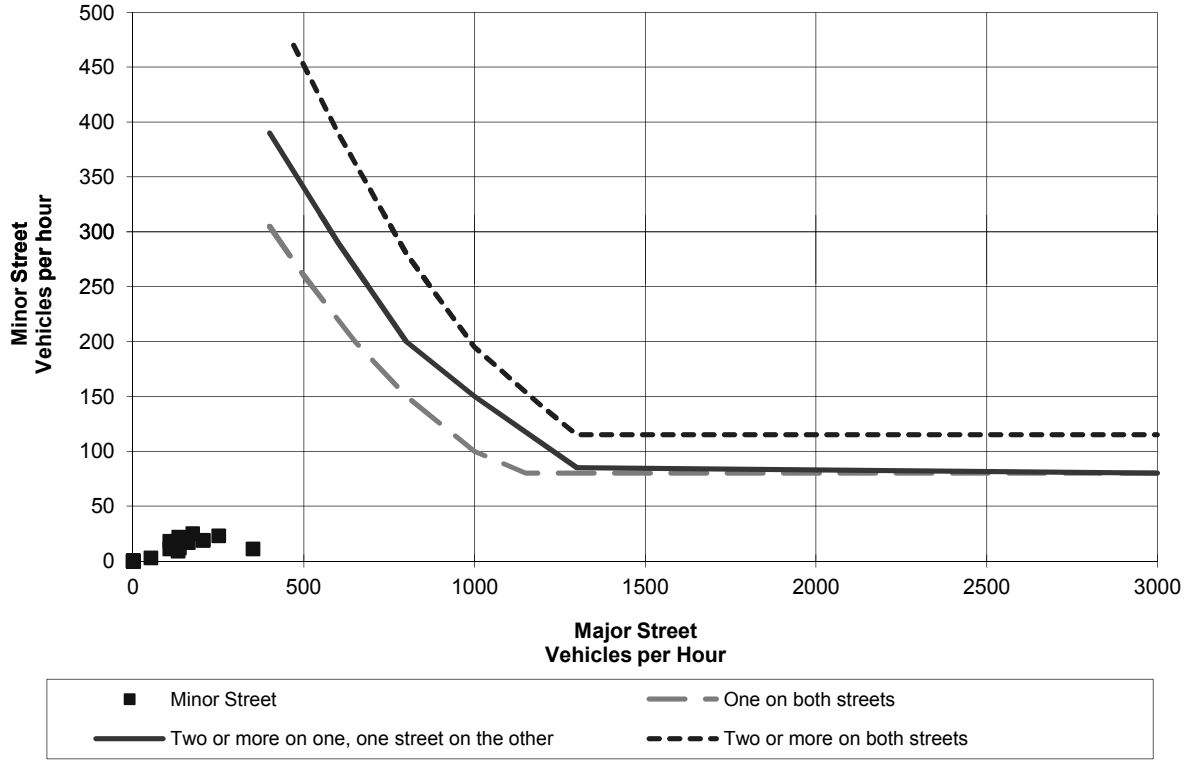
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 25 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette

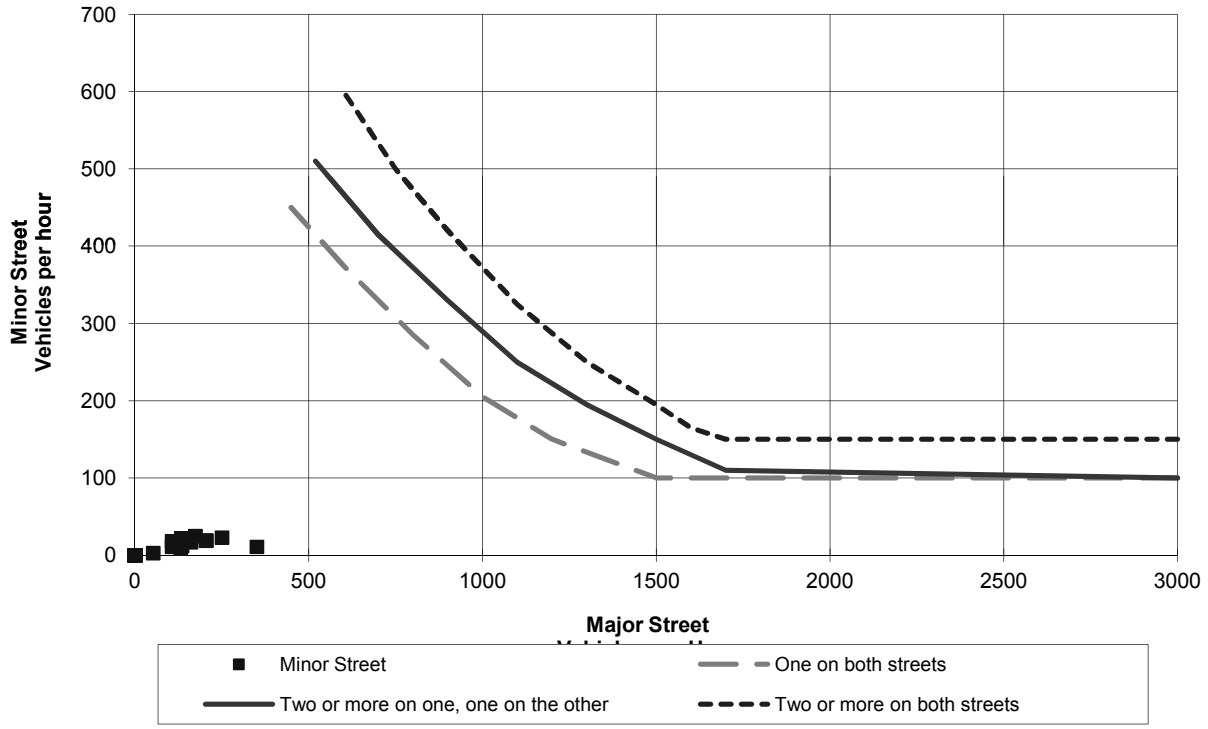
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? q

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Genesee Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**
(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 53 Altamont Street and Hampton Street

Major Street: Hampton Street Minor Street: Altamont Street

Intersection: Altamont Street and Hampton Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major WB	Major EB	Minor SB	Minor NB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	10	10	8	12	20	12	40
07:00 - 08:00	157	157	30	44	314	44	388
08:00 - 09:00	25	25	22	22	50	22	94
09:00 - 10:00	18	18	19	27	36	27	82
10:00 - 11:00	23	23	25	10	46	25	81
11:00 - 12:00	19	19	29	17	38	29	84
12:00 - 13:00	24	24	33	18	48	33	99
13:00 - 14:00	28	28	39	31	56	39	126
14:00 - 15:00	44	44	44	21	88	44	153
15:00 - 16:00	26	26	51	21	52	51	124
16:00 - 17:00	42	42	43	28	84	43	155
17:00 - 18:00	30	30	70	26	60	70	156
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**446**	**446**	**413**	**277**	**892**	**439**	**1582**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	20	12	No
07:00 - 08:00	314	44	No
08:00 - 09:00	50	22	No
09:00 - 10:00	36	27	No
10:00 - 11:00	46	25	No
11:00 - 12:00	38	29	No
12:00 - 13:00	48	33	No
13:00 - 14:00	56	39	No
14:00 - 15:00	88	44	No
15:00 - 16:00	52	51	No
16:00 - 17:00	84	43	No
17:00 - 18:00	60	70	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

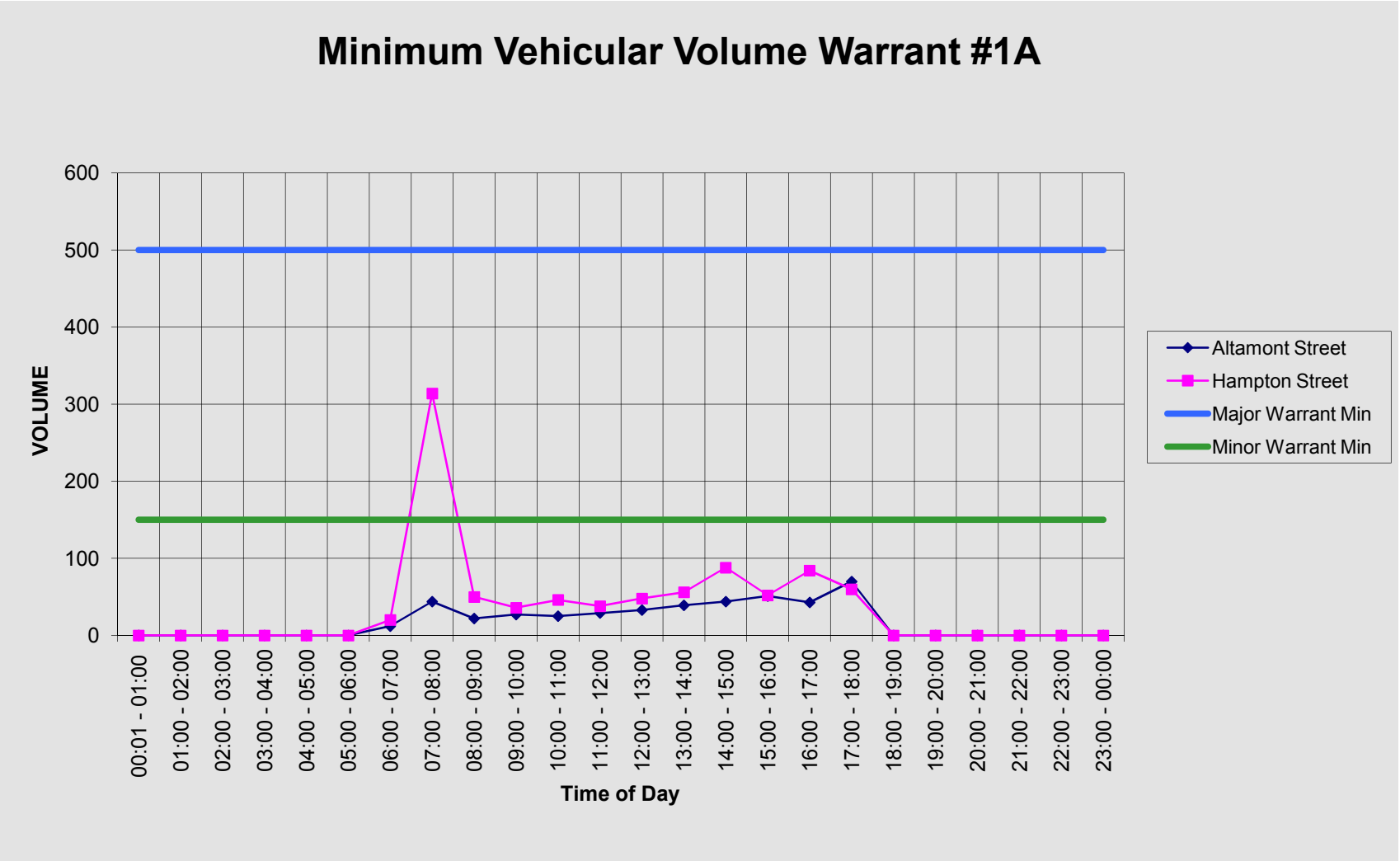
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Altamont Street and Hampton Street
Spot Number: 53 Altamont Street and Hampton Street

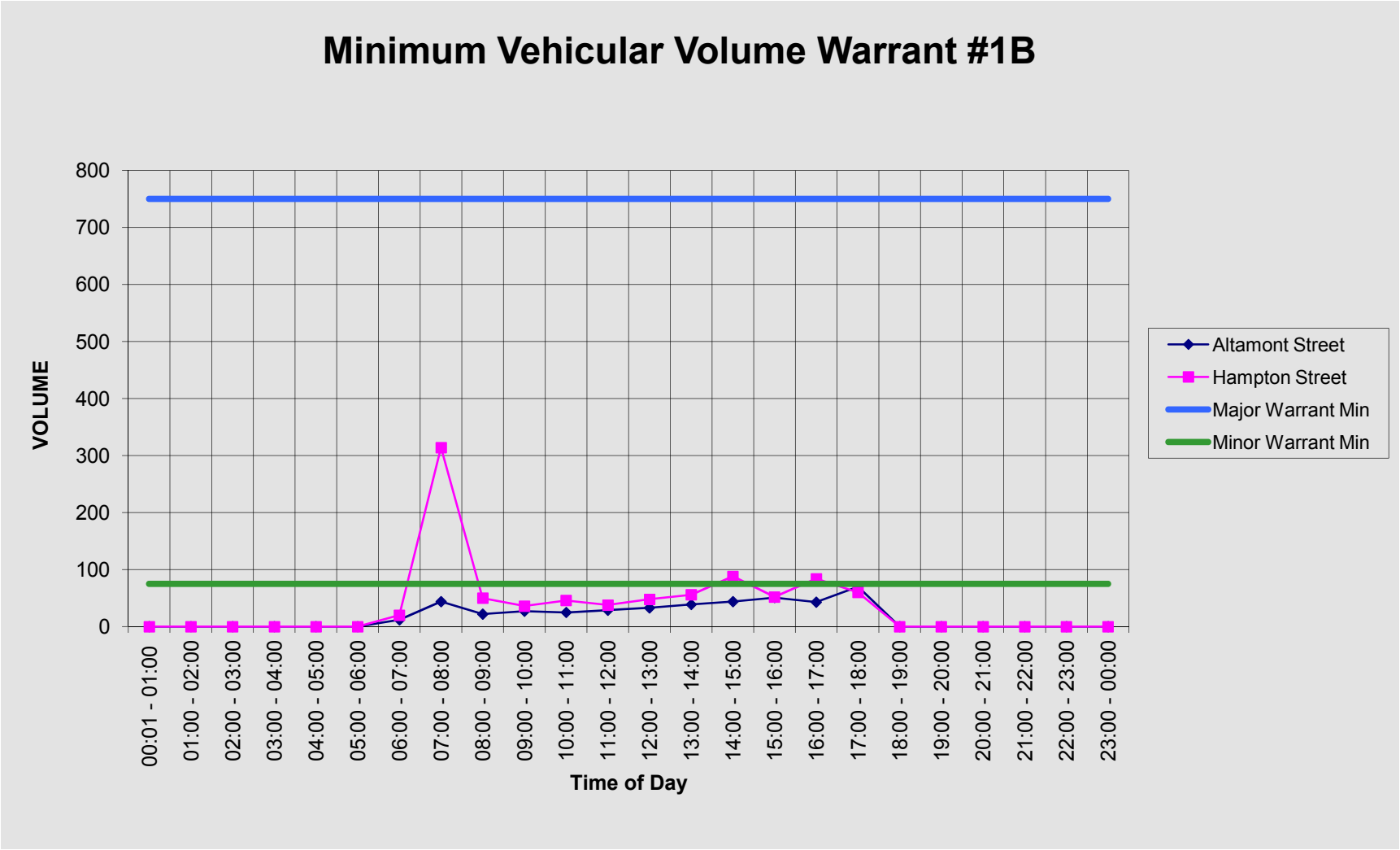
Major Street: Hampton Street
Minor Street: Altamont Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Altamont Street and Hampton Street
Spot Number: 53 Altamont Street and Hampton Street

Major Street: Hampton Street
Minor Street: Altamont Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette

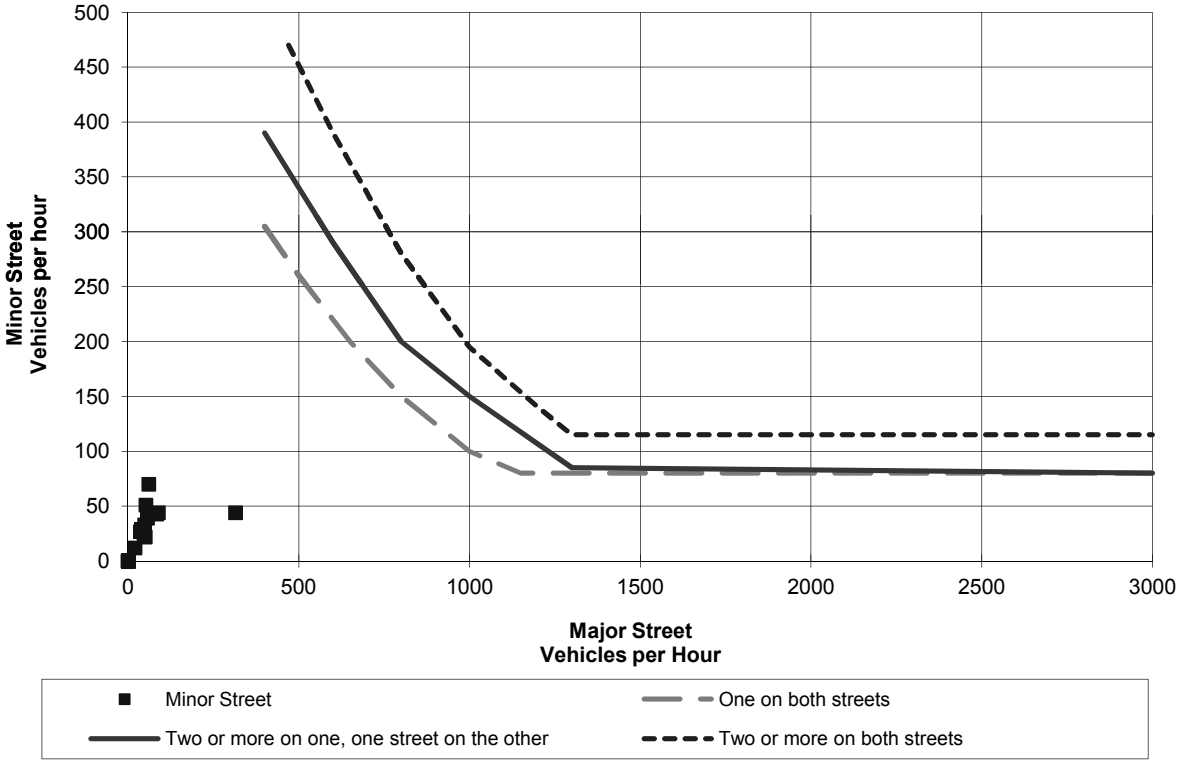
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 70 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette

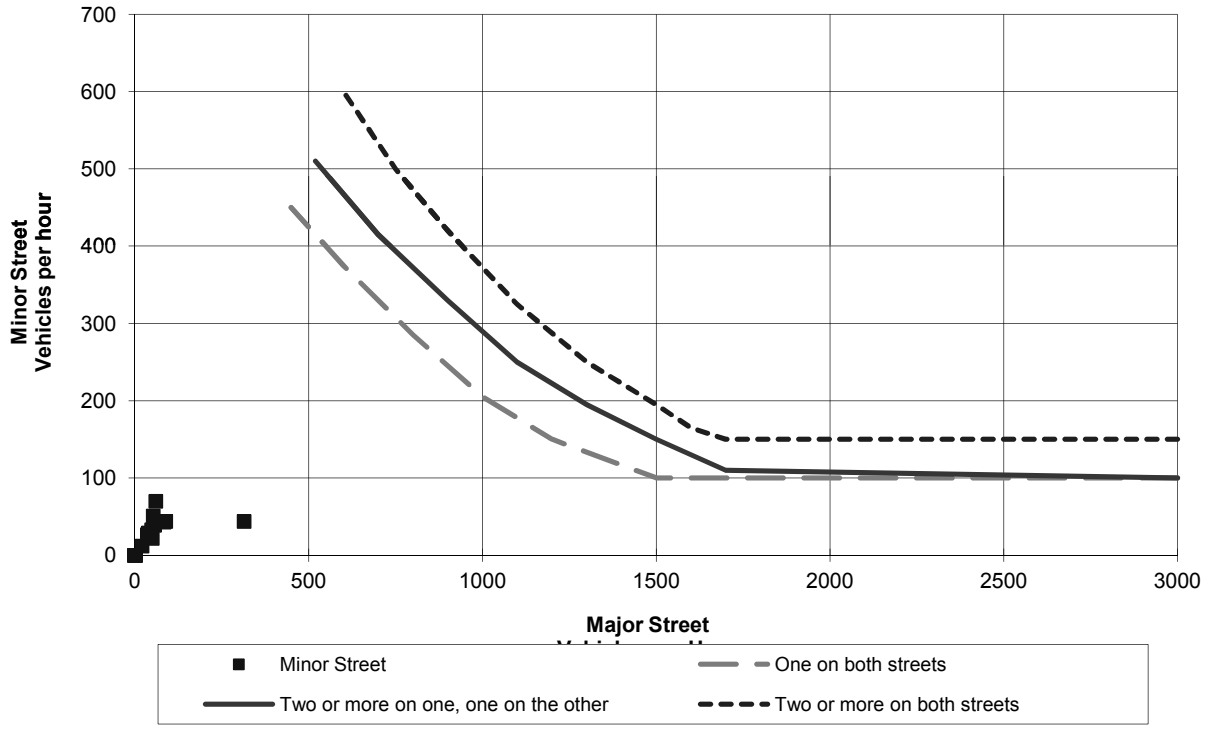
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Hampton Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 54 Division Street and Hampton Street

Major Street: Division Street Minor Street: Hampton Street

Intersection: Division Street and Hampton Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	32	55	14	11	87	14	112
07:00 - 08:00	80	255	65	86	335	86	486
08:00 - 09:00	65	123	35	15	188	35	238
09:00 - 10:00	63	98	37	25	161	37	223
10:00 - 11:00	85	102	39	22	187	39	248
11:00 - 12:00	92	104	47	27	196	47	270
12:00 - 13:00	121	128	66	35	249	66	350
13:00 - 14:00	96	130	40	32	226	40	298
14:00 - 15:00	135	120	61	54	255	61	370
15:00 - 16:00	172	112	56	55	284	56	395
16:00 - 17:00	216	144	72	38	360	72	470
17:00 - 18:00	186	155	41	59	341	59	441
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1343**	**1526**	**573**	**459**	**2869**	**612**	**3901**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	87	14	No
07:00 - 08:00	335	86	No
08:00 - 09:00	188	35	No
09:00 - 10:00	161	37	No
10:00 - 11:00	187	39	No
11:00 - 12:00	196	47	No
12:00 - 13:00	249	66	No
13:00 - 14:00	226	40	No
14:00 - 15:00	255	61	No
15:00 - 16:00	284	56	No
16:00 - 17:00	360	72	No
17:00 - 18:00	341	59	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

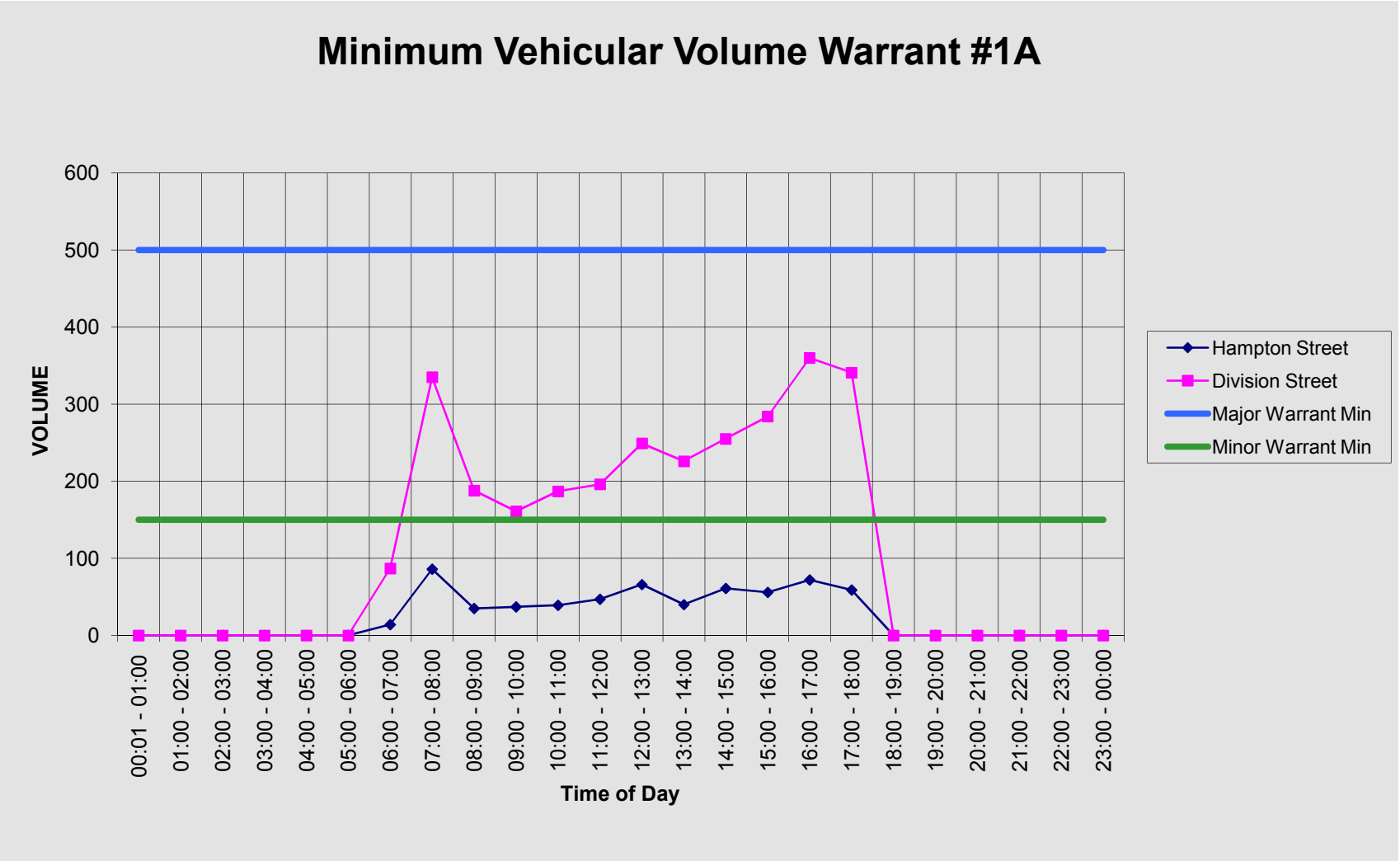
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Division Street and Hampton Street
Spot Number: 54 Division Street and Hampton Street

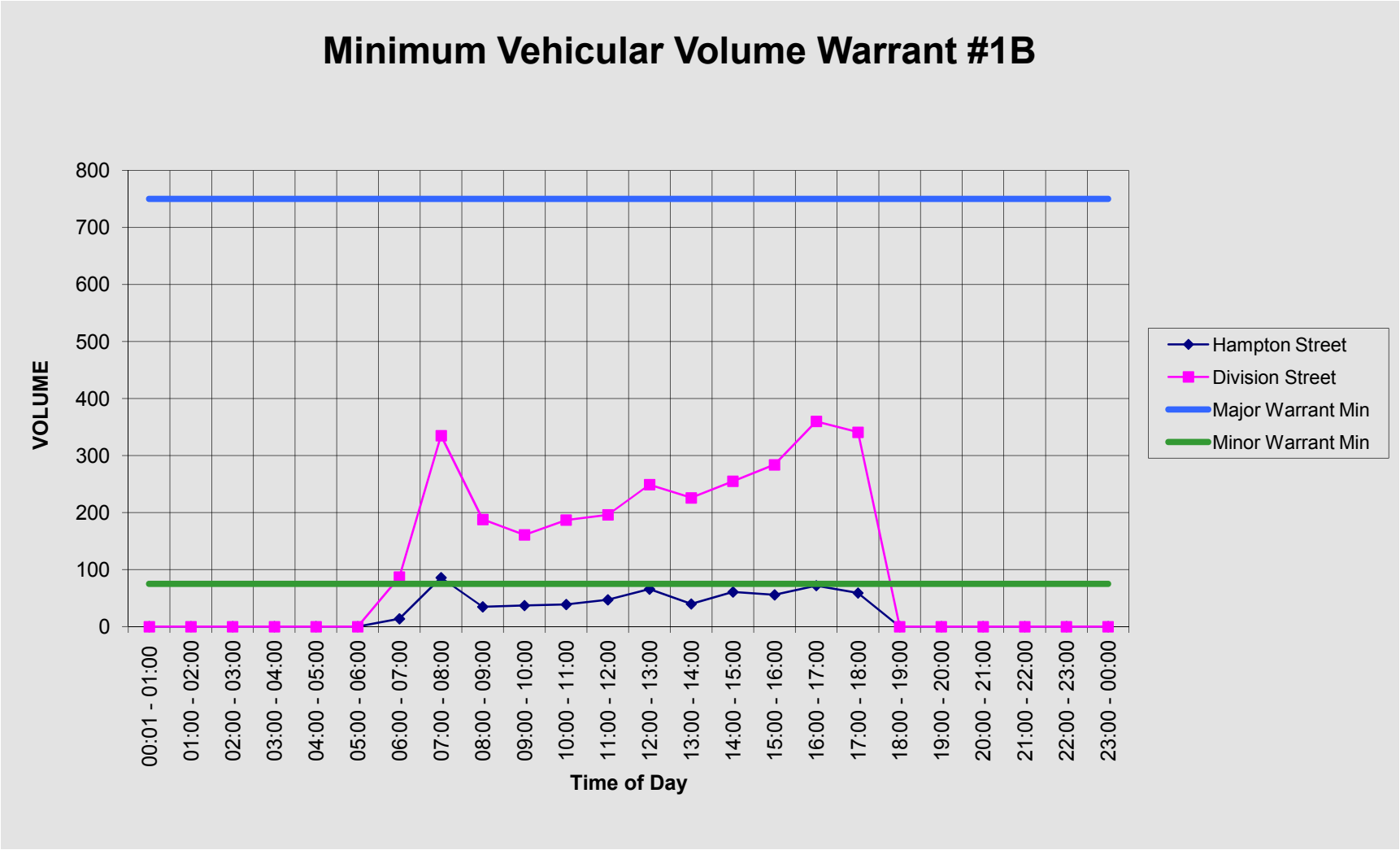
Major Street: Division Street
Minor Street: Hampton Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Division Street and Hampton Street
Spot Number: 54 Division Street and Hampton Street

Major Street: Division Street
Minor Street: Hampton Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette

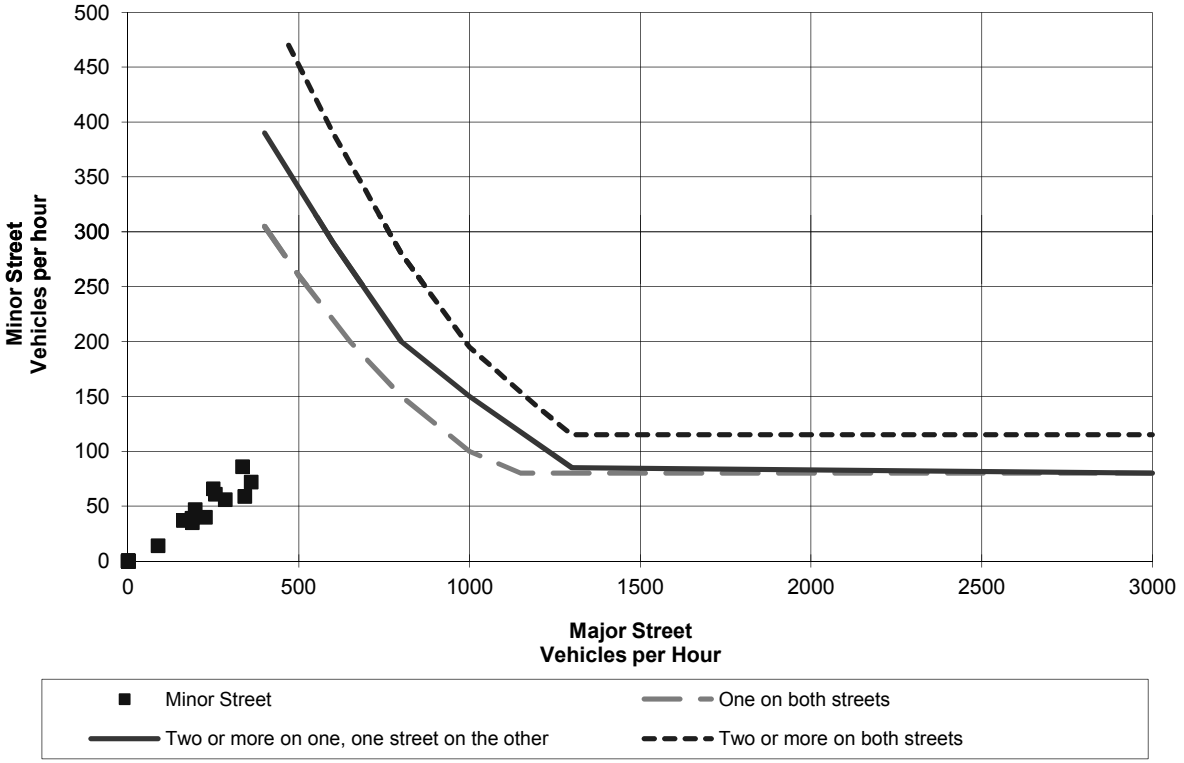
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 86 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 07:00 - 08:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette

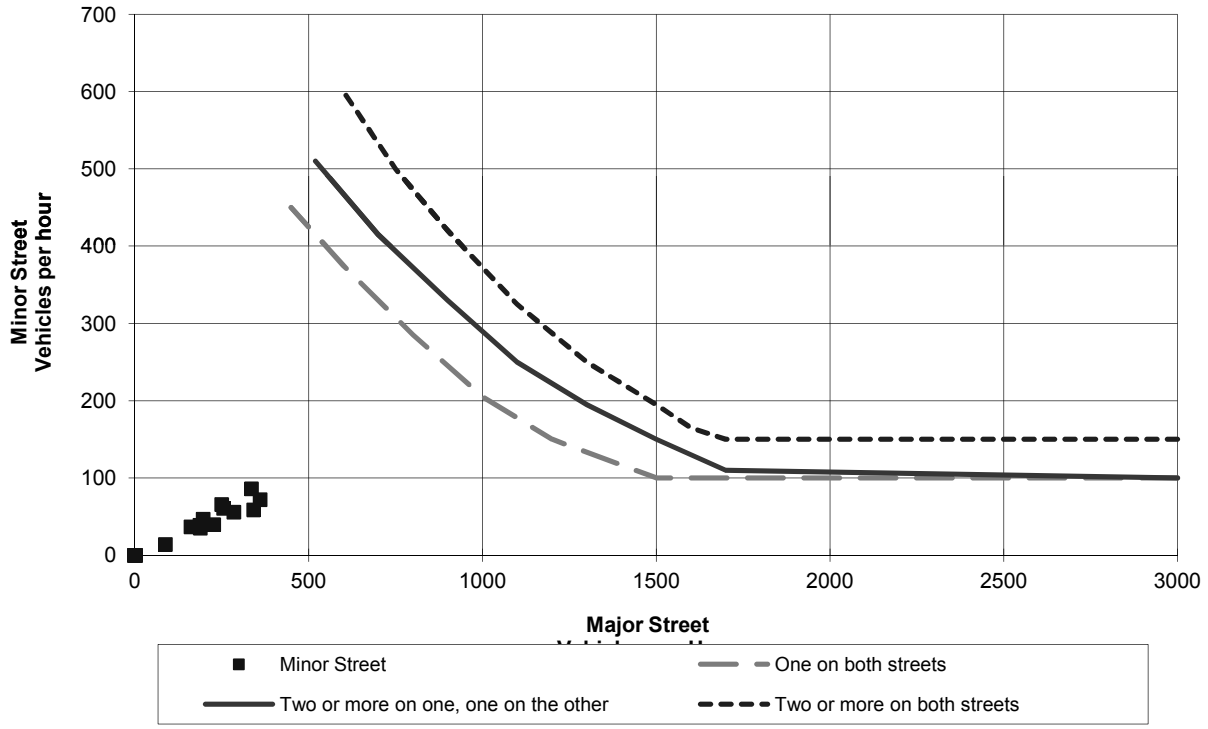
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Hampton Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 55 U.S. 41 and Hampton Street

Major Street: U.S. 41 Minor Street: Hampton Street

Intersection: U.S. 41 and Hampton Street

City: Marquette

Date Performed: 2/11/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	159	544	21	8	703	21	732
07:00 - 08:00	383	1078	39	49	1461	49	1549
08:00 - 09:00	433	804	28	17	1237	28	1282
09:00 - 10:00	457	732	33	21	1189	33	1243
10:00 - 11:00	519	623	46	36	1142	46	1224
11:00 - 12:00	638	603	61	33	1241	61	1335
12:00 - 13:00	753	622	44	27	1375	44	1446
13:00 - 14:00	686	629	41	36	1315	41	1392
14:00 - 15:00	800	637	49	48	1437	49	1534
15:00 - 16:00	929	625	36	61	1554	61	1651
16:00 - 17:00	1132	738	41	49	1870	49	1960
17:00 - 18:00	1103	708	34	51	1811	51	1896
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**7992**	**8343**	**473**	**436**	**16335**	**533**	**17244**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette
Date 2/11/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 2 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	703	21	No
07:00 - 08:00	1461	49	No
08:00 - 09:00	1237	28	No
09:00 - 10:00	1189	33	No
10:00 - 11:00	1142	46	No
11:00 - 12:00	1241	61	No
12:00 - 13:00	1375	44	No
13:00 - 14:00	1315	41	No
14:00 - 15:00	1437	49	No
15:00 - 16:00	1554	61	No
16:00 - 17:00	1870	49	No
17:00 - 18:00	1811	51	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

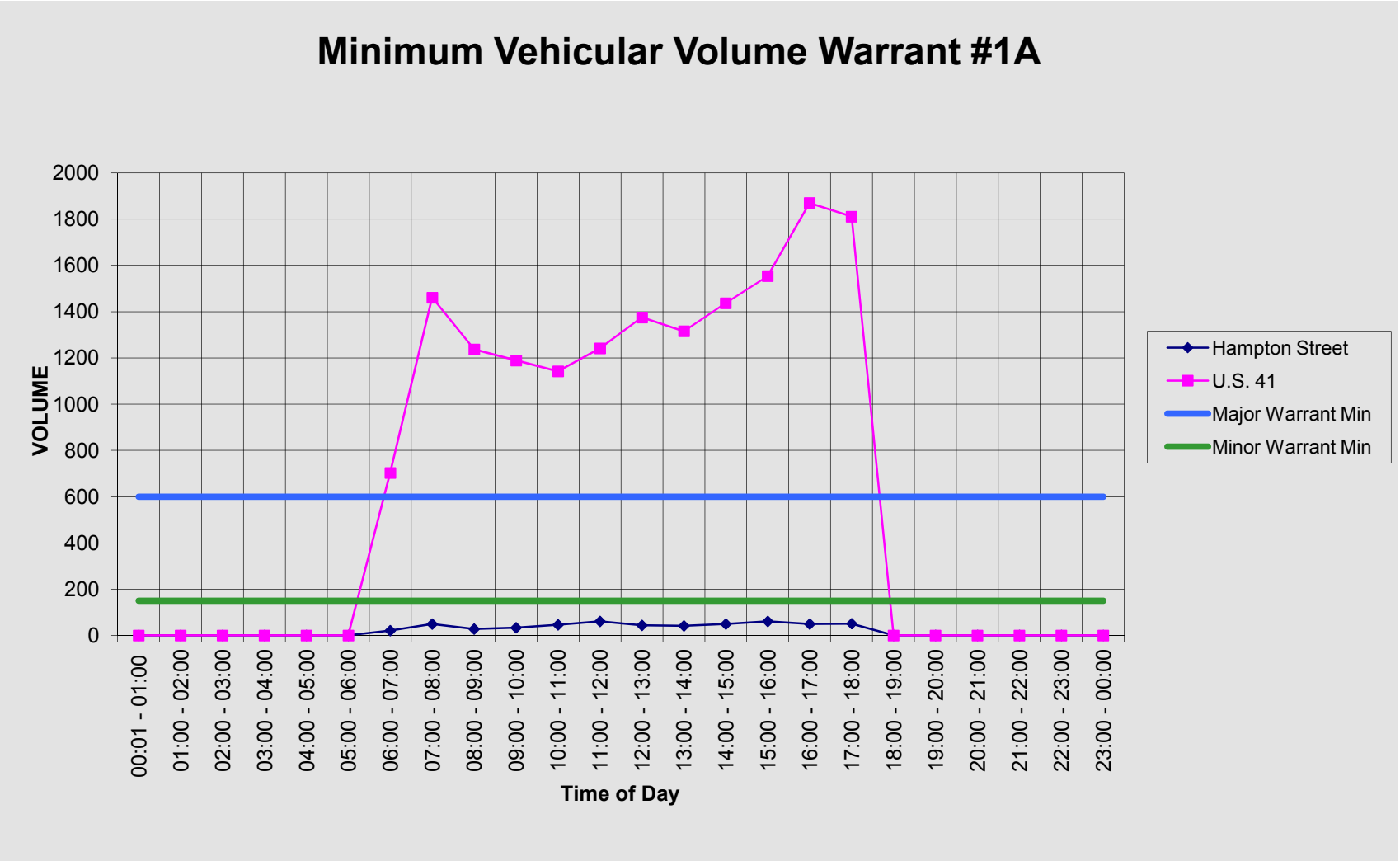
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: U.S. 41 and Hampton Street
Spot Number: 55 U.S. 41 and Hampton Street

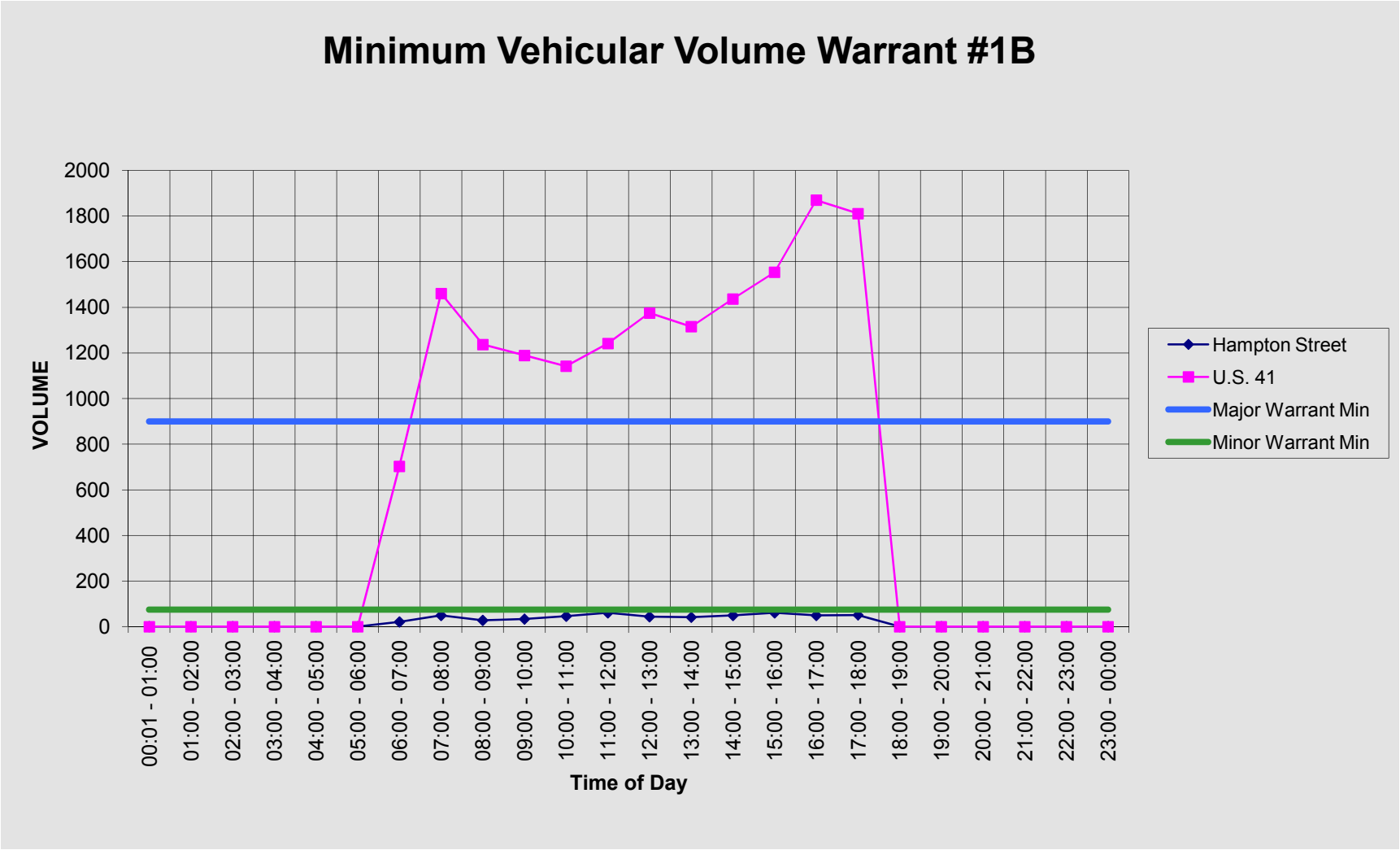
Major Street: U.S. 41
Minor Street: Hampton Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: U.S. 41 and Hampton Street
Spot Number: 55 U.S. 41 and Hampton Street

Major Street: U.S. 41
Minor Street: Hampton Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette

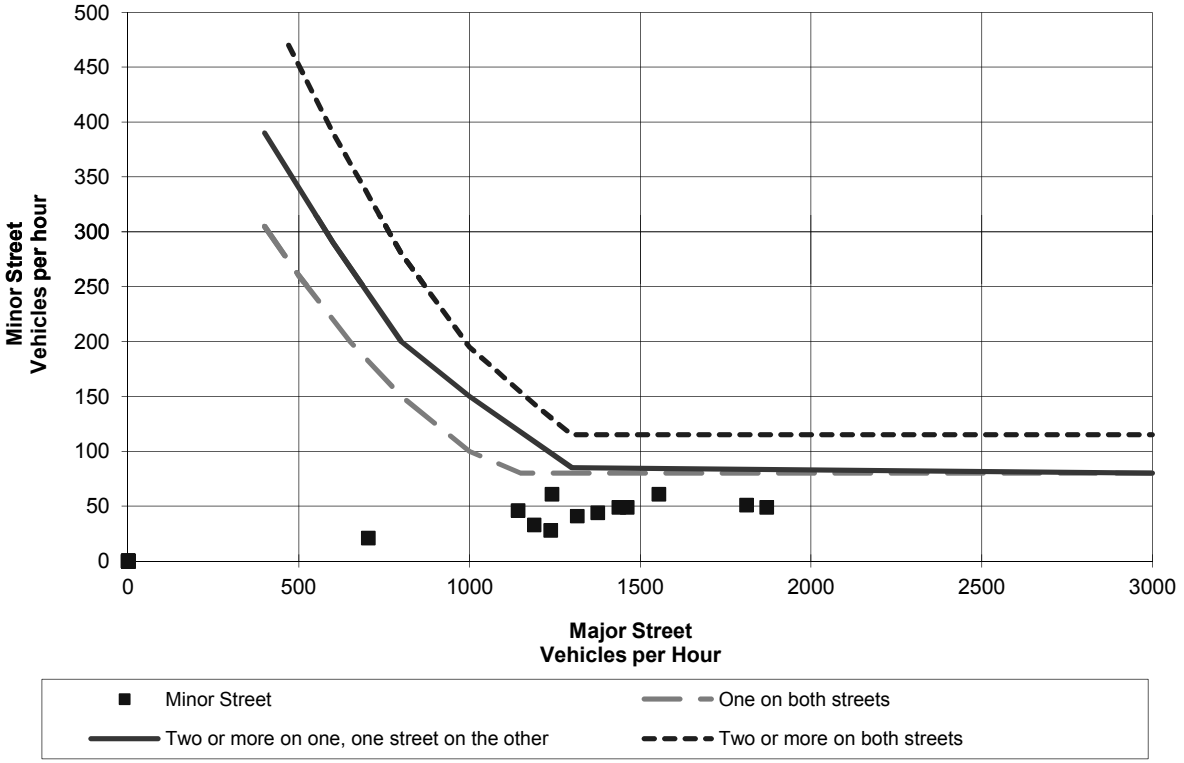
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 61 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 11:00 - 12:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette

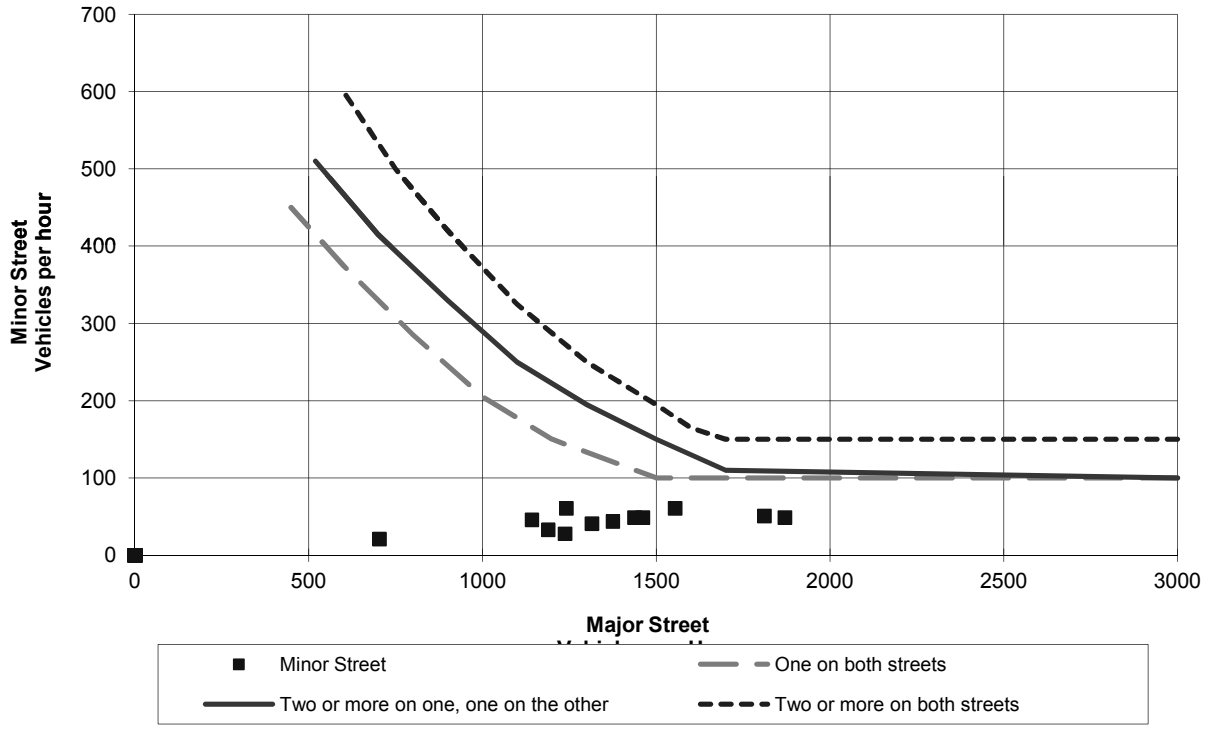
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 2 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? Yes

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: U.S. 41 and Hampton Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 56 Division Street and Joliet Road

Major Street: Division Street Minor Street: Joliet Road

Intersection: Division Street and Joliet Road

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 12/9/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	33	48	24	9	81	24	114
07:00 - 08:00	67	159	67	4	226	67	297
08:00 - 09:00	94	104	44	13	198	44	255
09:00 - 10:00	84	86	32	12	170	32	214
10:00 - 11:00	77	81	24	9	158	24	191
11:00 - 12:00	92	98	21	12	190	21	223
12:00 - 13:00	101	105	36	11	206	36	253
13:00 - 14:00	86	77	35	11	163	35	209
14:00 - 15:00	125	97	12	13	222	13	247
15:00 - 16:00	138	130	29	7	268	29	304
16:00 - 17:00	187	145	31	7	332	31	370
17:00 - 18:00	159	122	38	2	281	38	321
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1243**	**1252**	**393**	**110**	**2495**	**394**	**2998**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	81	24	No
07:00 - 08:00	226	67	No
08:00 - 09:00	198	44	No
09:00 - 10:00	170	32	No
10:00 - 11:00	158	24	No
11:00 - 12:00	190	21	No
12:00 - 13:00	206	36	No
13:00 - 14:00	163	35	No
14:00 - 15:00	222	13	No
15:00 - 16:00	268	29	No
16:00 - 17:00	332	31	No
17:00 - 18:00	281	38	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

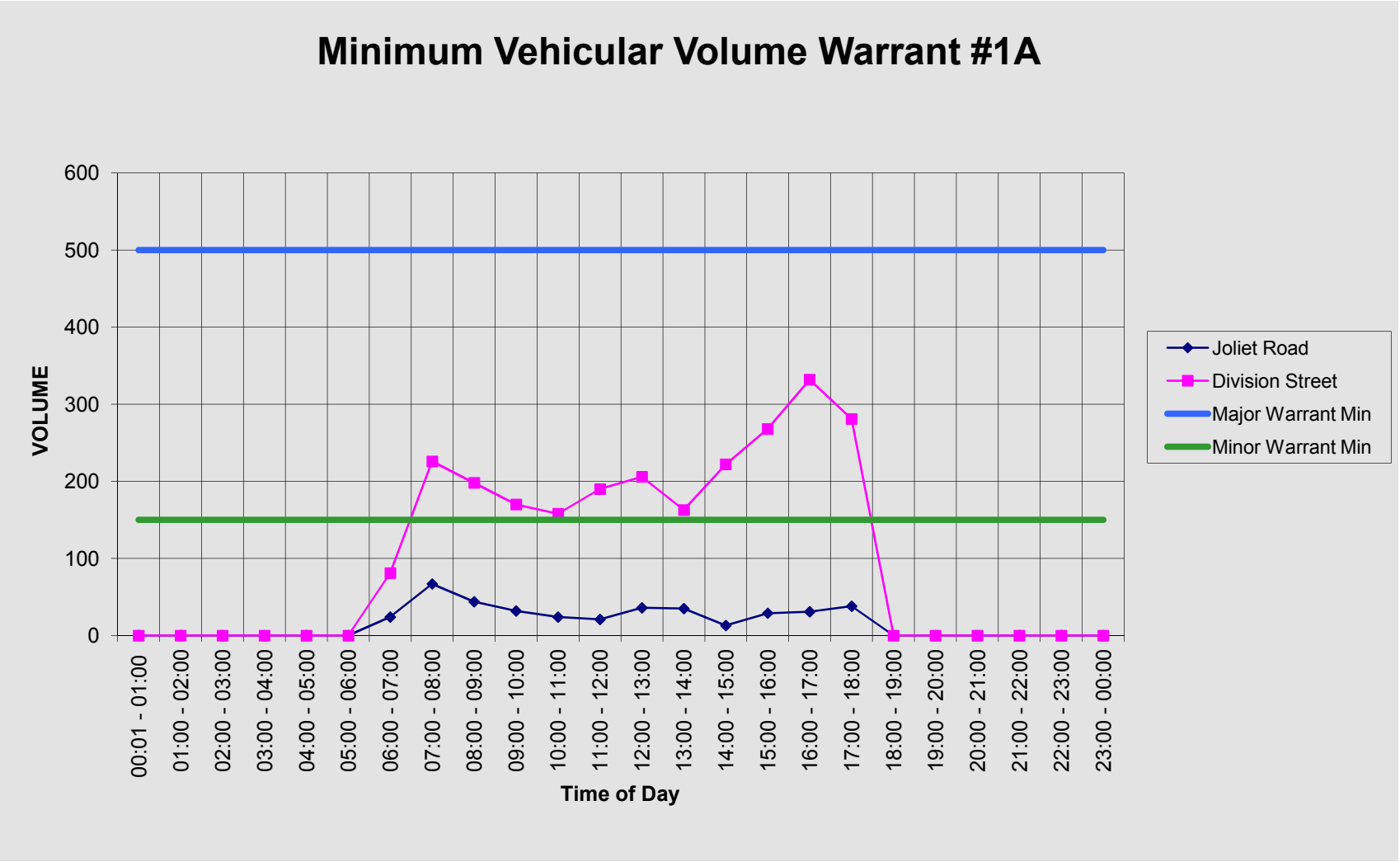
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Division Street and Joliet Road
Spot Number: 56 Division Street and Joliet Road

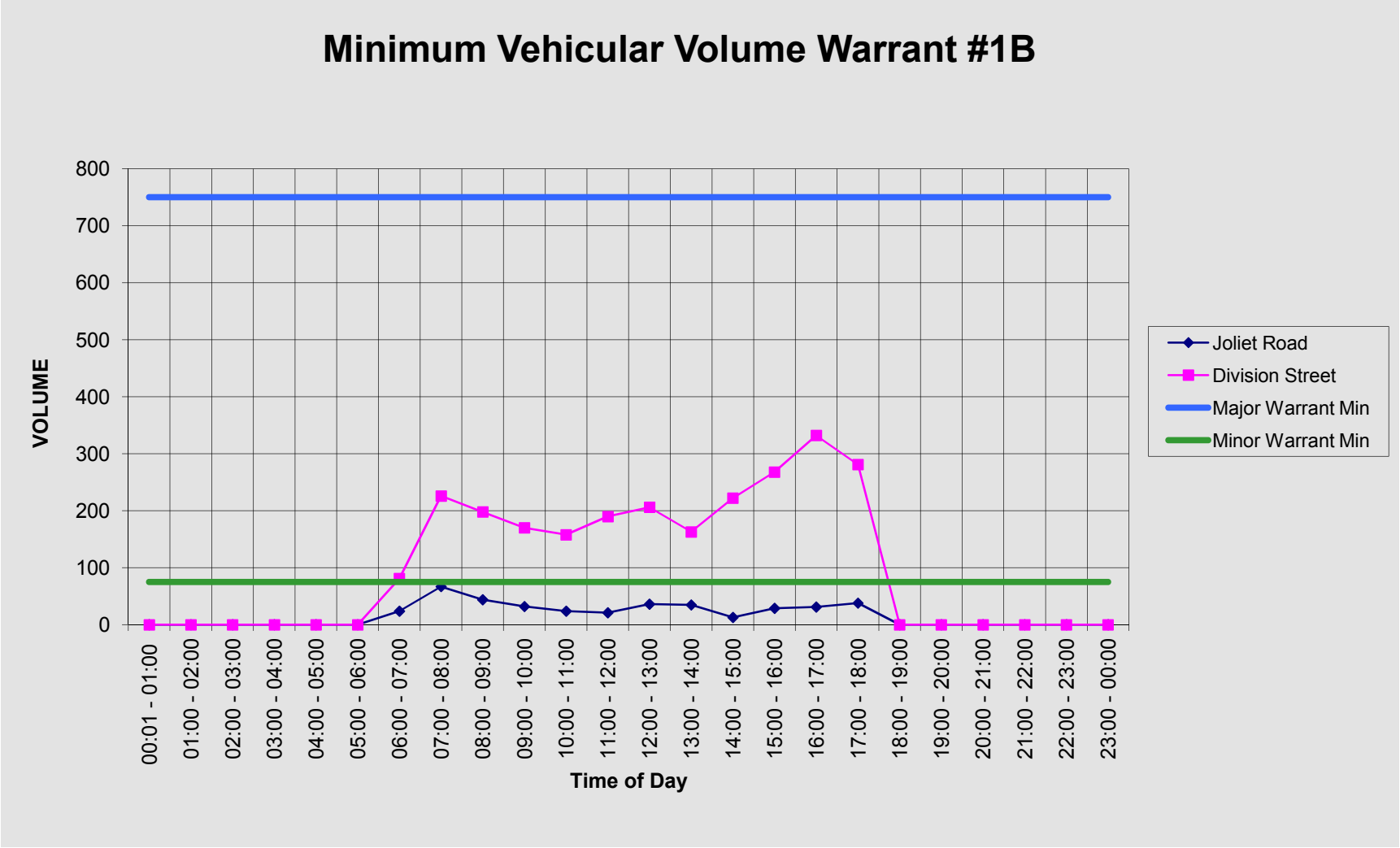
Major Street: Division Street
Minor Street: Joliet Road
Date of Survey: 12/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Division Street and Joliet Road
Spot Number: 56 Division Street and Joliet Road

Major Street: Division Street
Minor Street: Joliet Road
Date of Survey: 12/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette

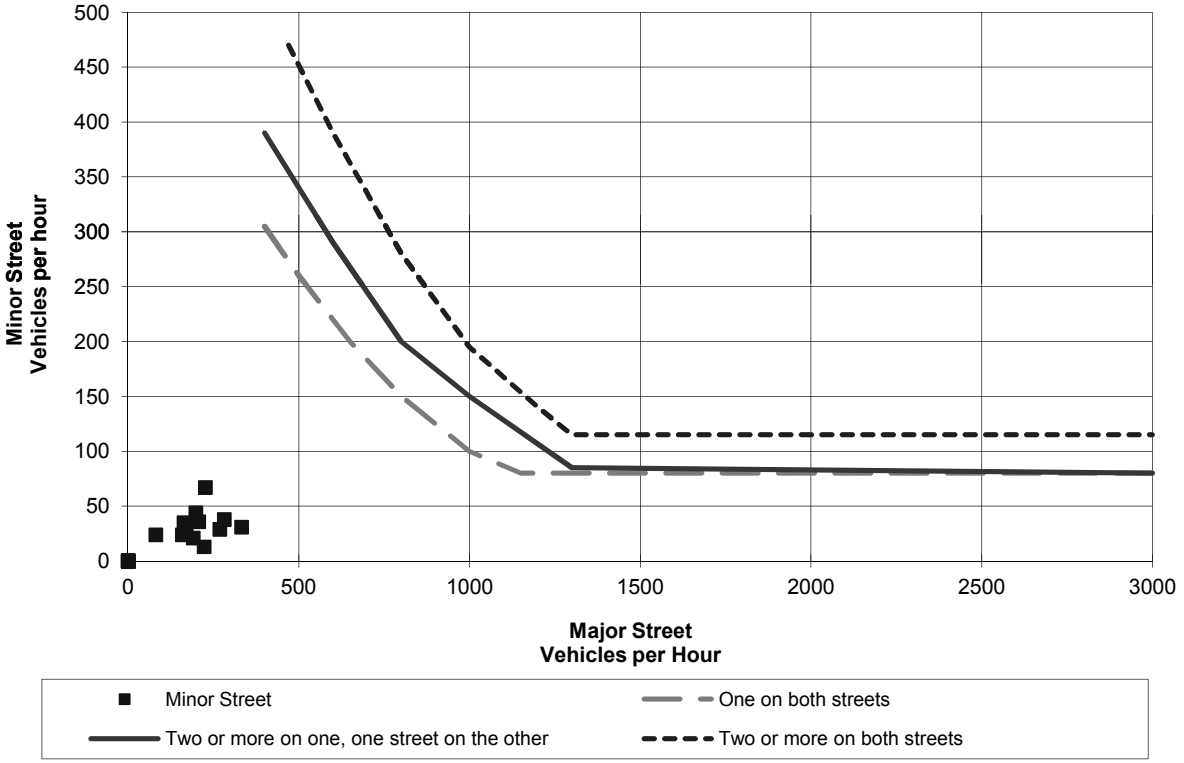
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 67 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 07:00 - 08:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette

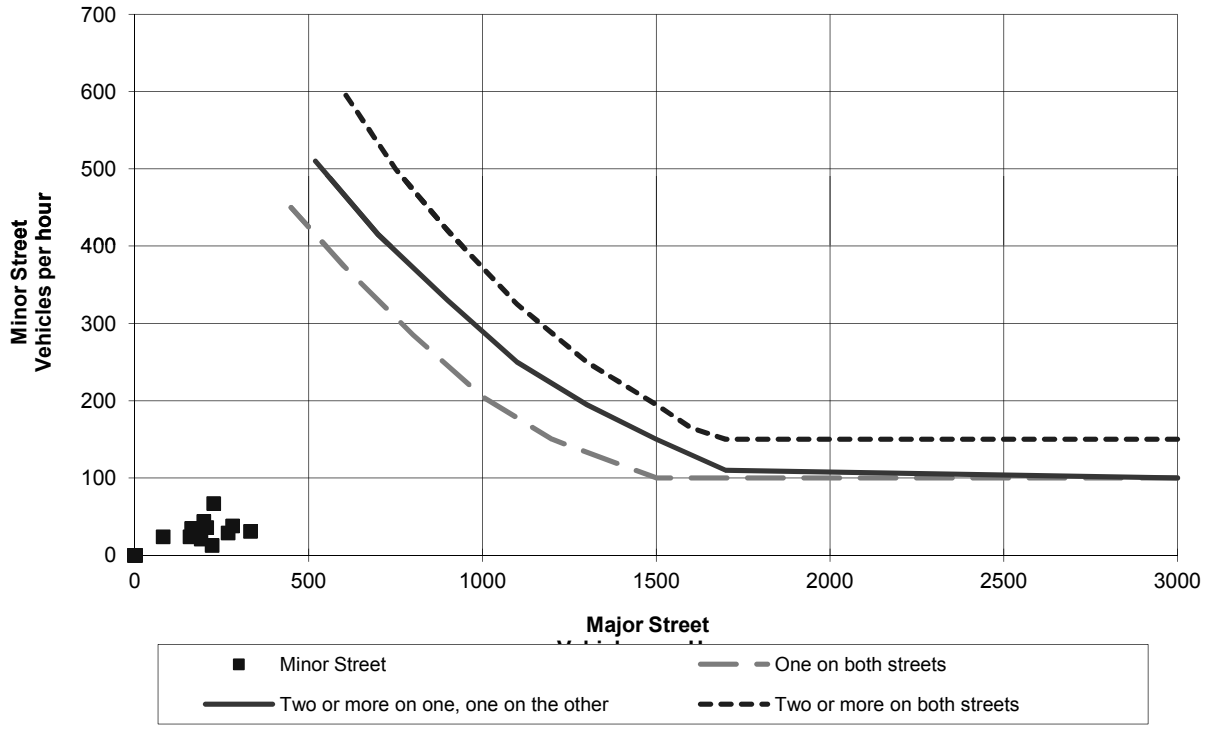
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Joliet Road
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 57 Division Street and Pioneer Road

Major Street: Division Street Minor Street: Pioneer Road

Intersection: Division Street and Pioneer Road

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major SWB	Major NEB	Minor SEB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	54	40	17	0	94	17	111
07:00 - 08:00	92	117	34	0	209	34	243
08:00 - 09:00	120	73	48	0	193	48	241
09:00 - 10:00	86	56	38	0	142	38	180
10:00 - 11:00	78	57	46	0	135	46	181
11:00 - 12:00	117	55	66	0	172	66	238
12:00 - 13:00	125	65	87	0	190	87	277
13:00 - 14:00	113	72	72	0	185	72	257
14:00 - 15:00	125	65	65	0	190	65	255
15:00 - 16:00	161	70	71	0	231	71	302
16:00 - 17:00	204	98	94	0	302	94	396
17:00 - 18:00	212	96	100	0	308	100	408
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1487**	**864**	**738**	**0**	**2351**	**738**	**3089**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	94	17	No
07:00 - 08:00	209	34	No
08:00 - 09:00	193	48	No
09:00 - 10:00	142	38	No
10:00 - 11:00	135	46	No
11:00 - 12:00	172	66	No
12:00 - 13:00	190	87	No
13:00 - 14:00	185	72	No
14:00 - 15:00	190	65	No
15:00 - 16:00	231	71	No
16:00 - 17:00	302	94	No
17:00 - 18:00	308	100	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

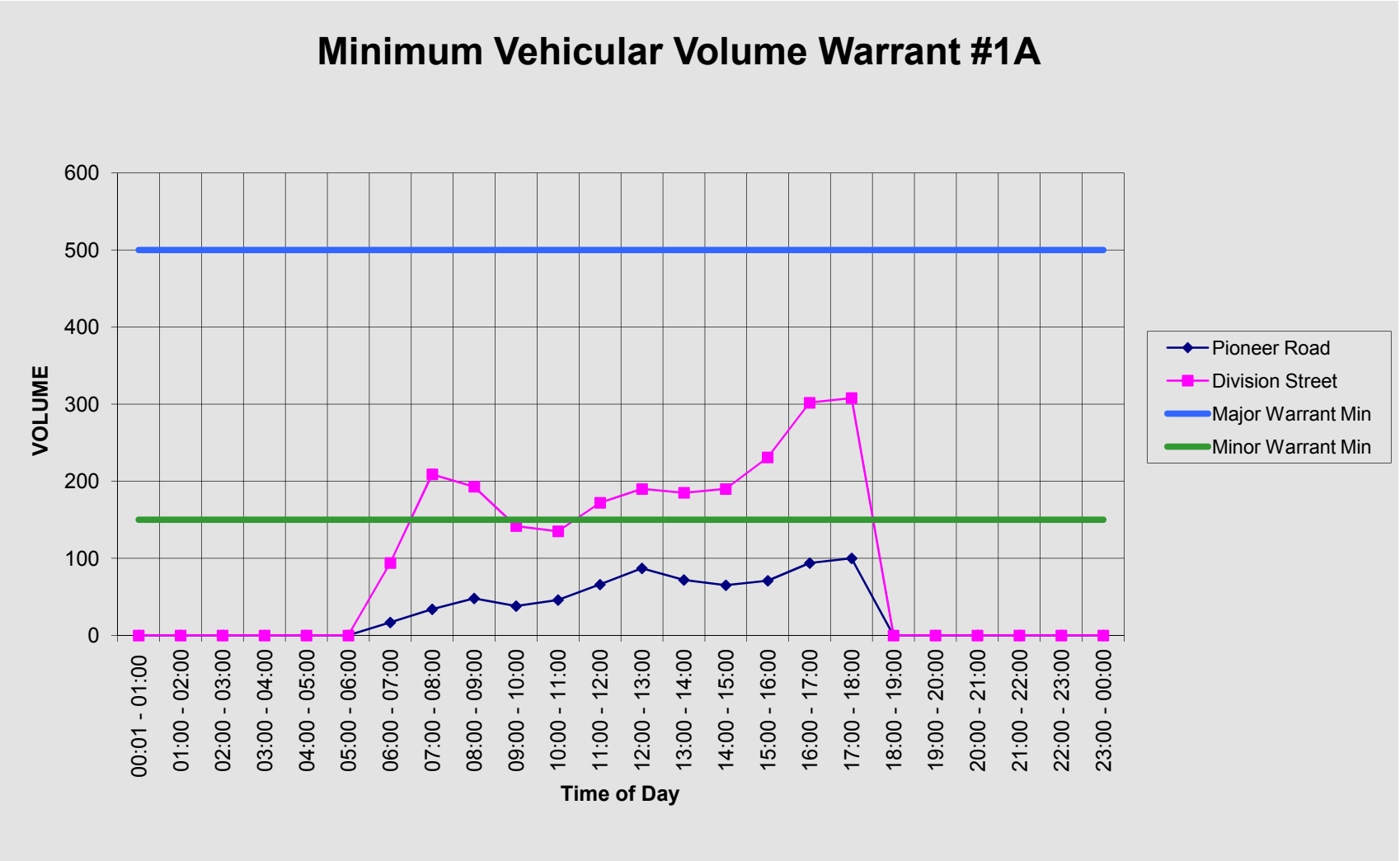
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? No
B. Is the Interruption of Continuous Traffic Met? No
Combination of Warrants A and B Criteria Met? No
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Division Street and Pioneer Road
Spot Number: 57 Division Street and Pioneer Road

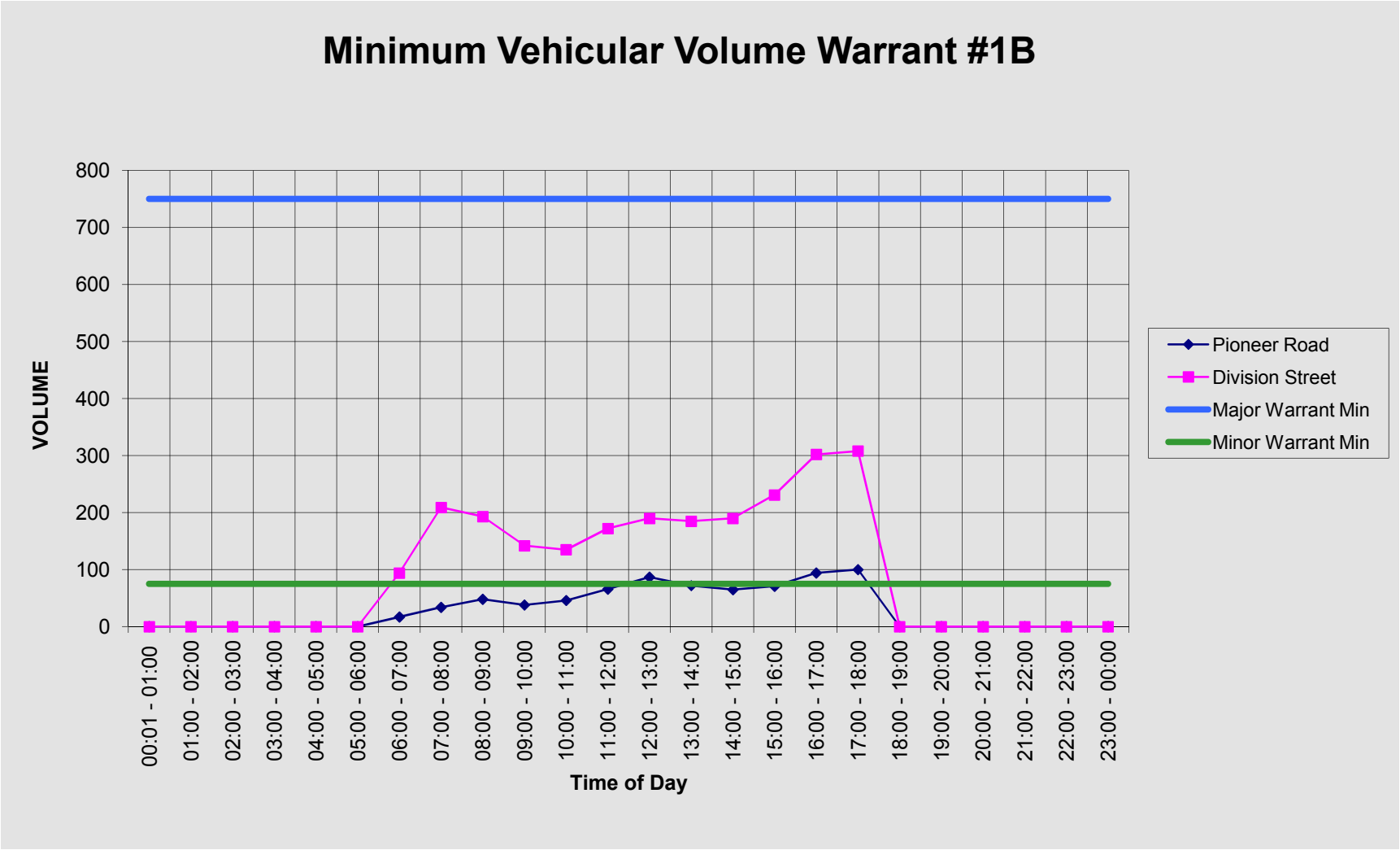
Major Street: Division Street
Minor Street: Pioneer Road
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Division Street and Pioneer Road
Spot Number: 57 Division Street and Pioneer Road

Major Street: Division Street
Minor Street: Pioneer Road
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette

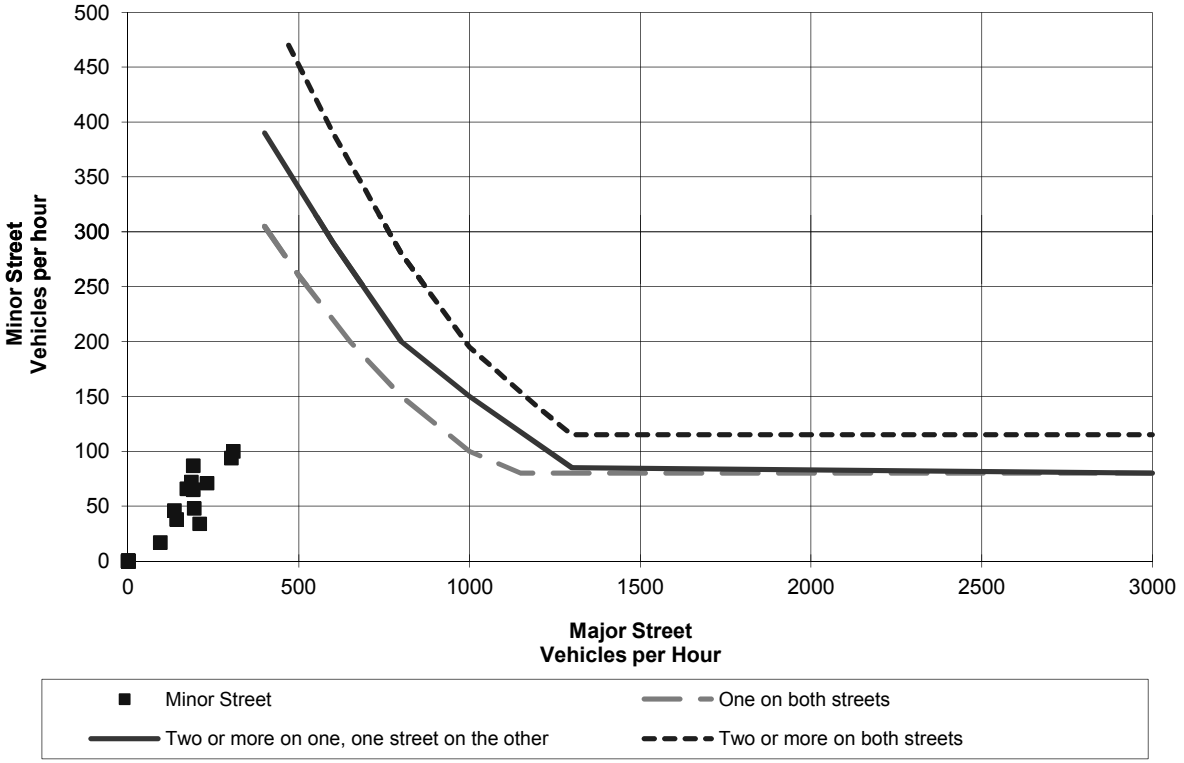
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 100 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette

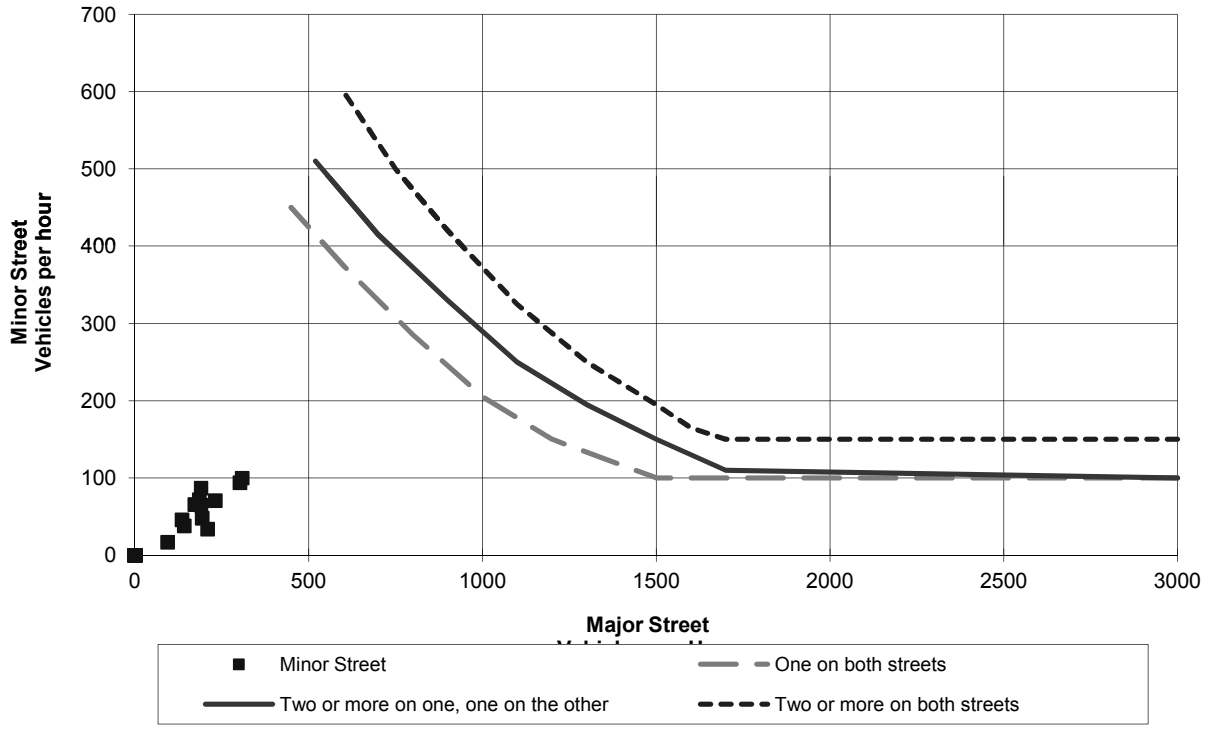
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and Pioneer Road
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 58 Altamont Street and Pioneer Road

Major Street: Pioneer Road Minor Street: Altamont Street

Intersection: Altamont Street and Pioneer Road

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major WB	Major EB	Minor SB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	23	20	8	0	43	8	51
07:00 - 08:00	61	51	36	0	112	36	148
08:00 - 09:00	81	60	26	0	141	26	167
09:00 - 10:00	52	54	14	0	106	14	120
10:00 - 11:00	42	53	9	0	95	9	104
11:00 - 12:00	61	77	17	0	138	17	155
12:00 - 13:00	70	105	20	0	175	20	195
13:00 - 14:00	63	83	23	0	146	23	169
14:00 - 15:00	67	84	20	0	151	20	171
15:00 - 16:00	69	95	25	0	164	25	189
16:00 - 17:00	82	120	26	0	202	26	228
17:00 - 18:00	82	125	26	0	207	26	233
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**753**	**927**	**250**	**0**	**1680**	**250**	**1930**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	43	8	No
07:00 - 08:00	112	36	No
08:00 - 09:00	141	26	No
09:00 - 10:00	106	14	No
10:00 - 11:00	95	9	No
11:00 - 12:00	138	17	No
12:00 - 13:00	175	20	No
13:00 - 14:00	146	23	No
14:00 - 15:00	151	20	No
15:00 - 16:00	164	25	No
16:00 - 17:00	202	26	No
17:00 - 18:00	207	26	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

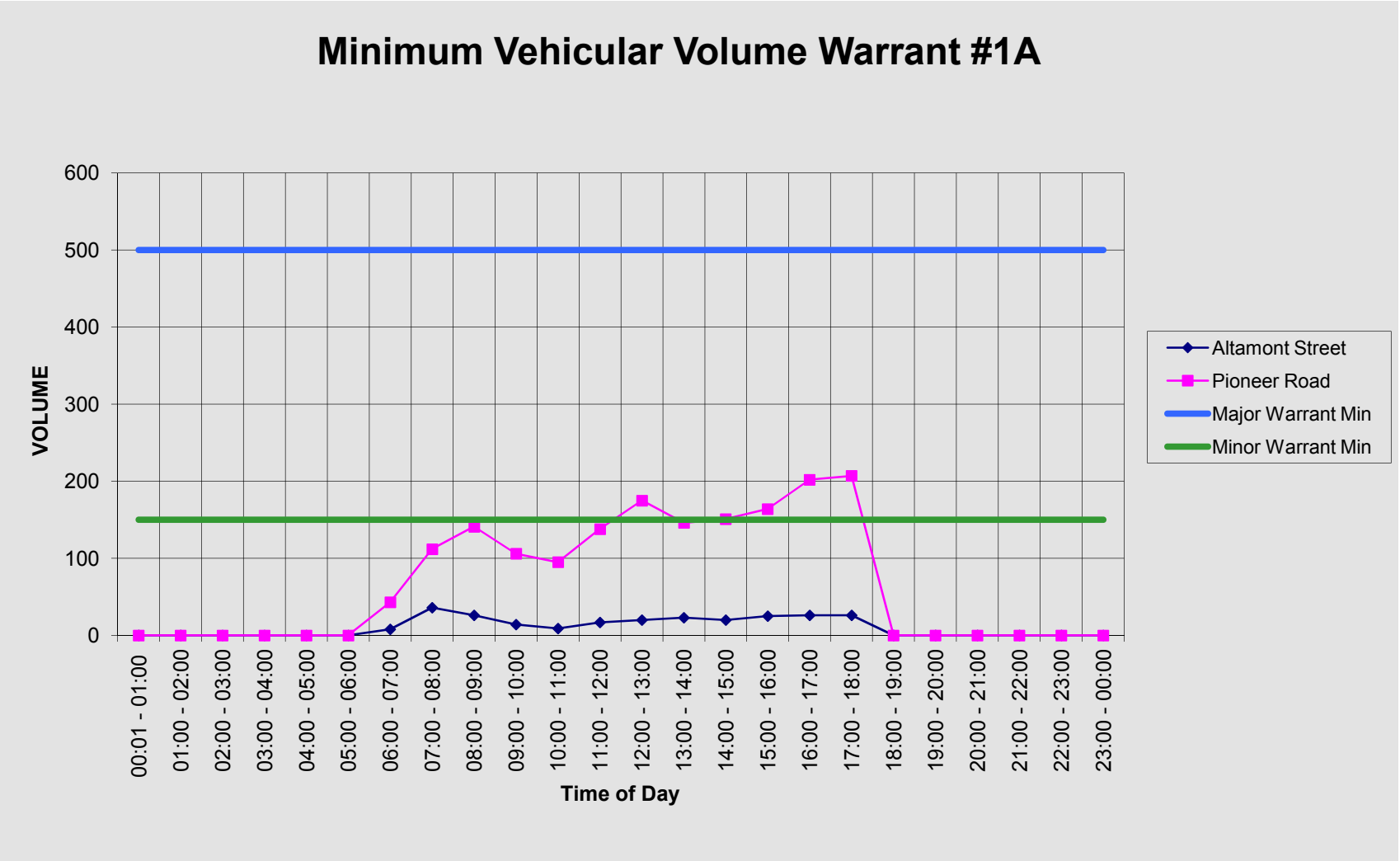
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Altamont Street and Pioneer Road
Spot Number: 58 Altamont Street and Pioneer Road

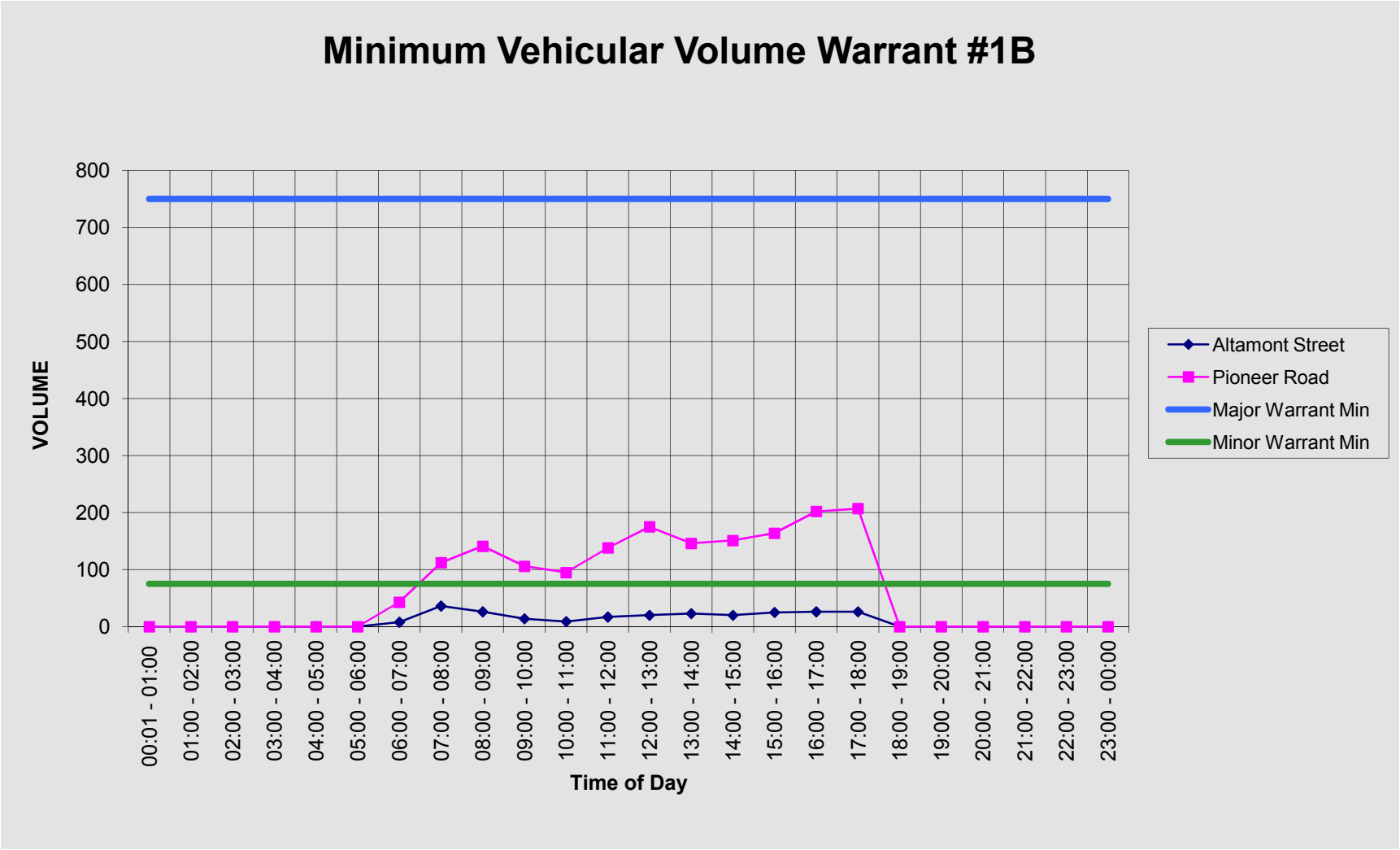
Major Street: Pioneer Road
Minor Street: Altamont Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Altamont Street and Pioneer Road
Spot Number: 58 Altamont Street and Pioneer Road

Major Street: Pioneer Road
Minor Street: Altamont Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette

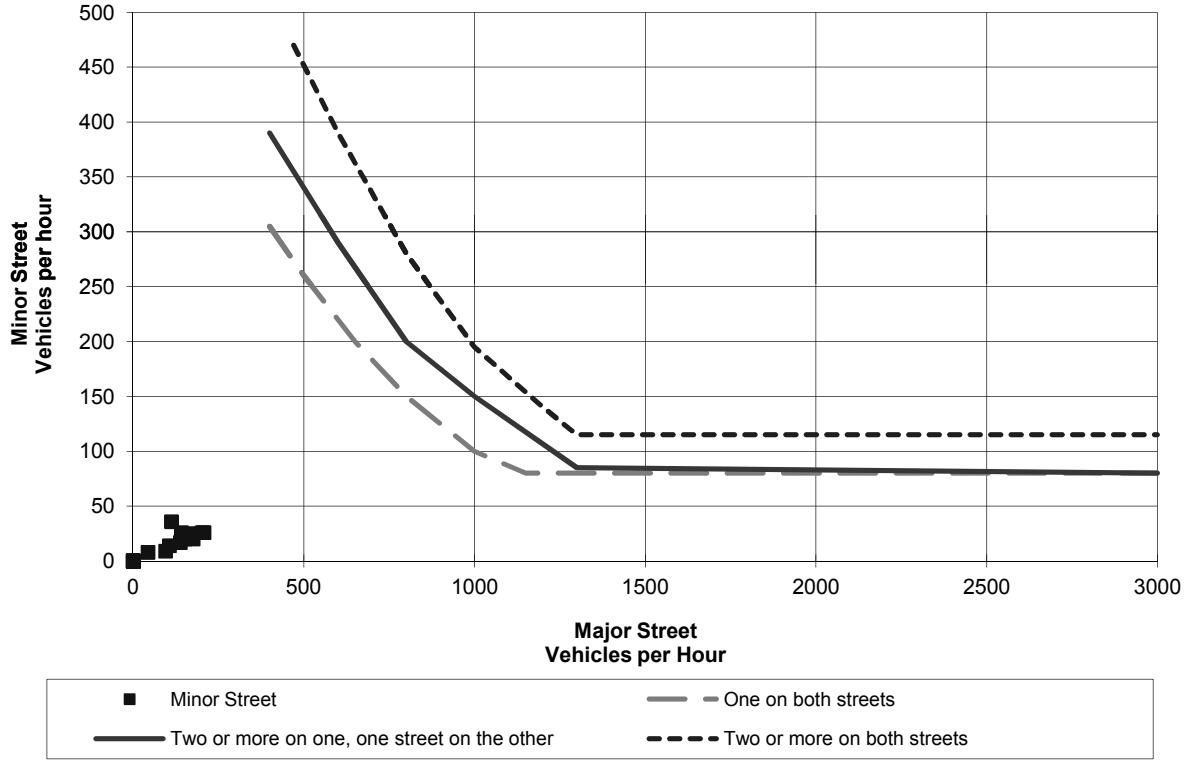
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 36 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 07:00 - 08:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette

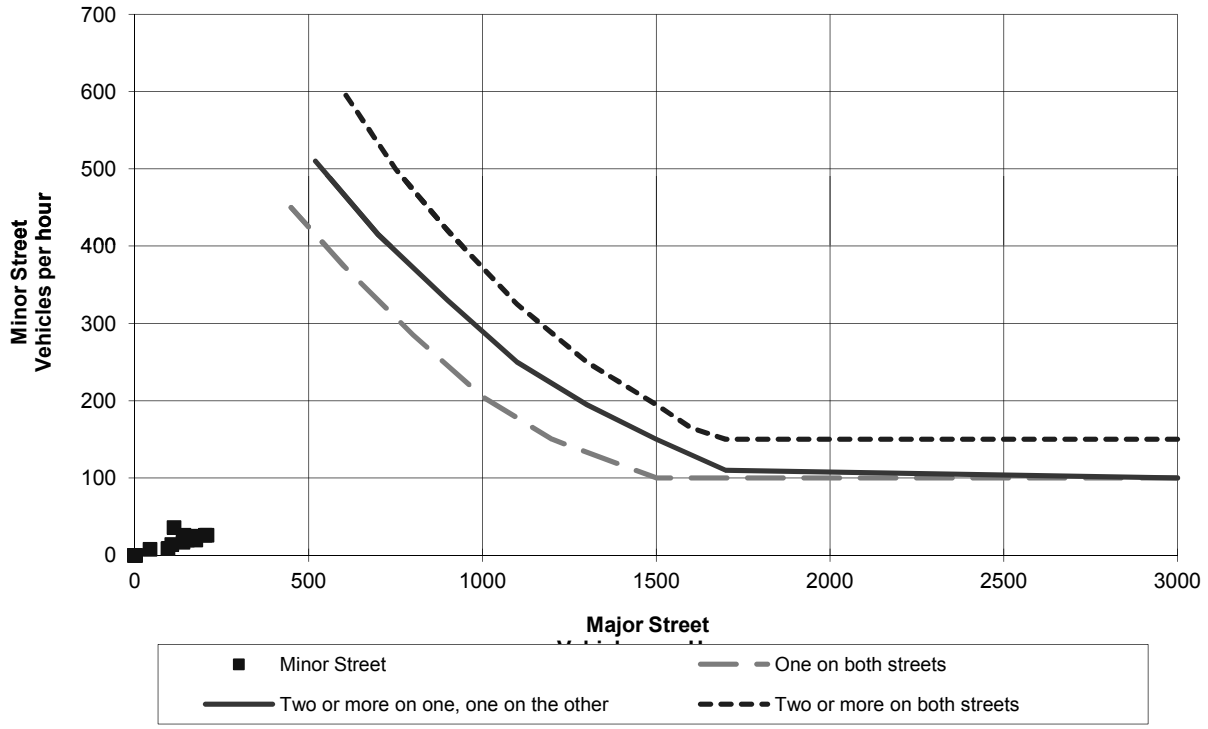
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Altamont Street and Pioneer Road
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 59 Division Street and McClellan Avenue

Major Street: McClellan Avenue Minor Street: Division Street

Intersection: Division Street and McClellan Avenue

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major SB	Major NB	Minor WB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	74	204	33	0	278	33	311
07:00 - 08:00	108	435	54	0	543	54	597
08:00 - 09:00	101	302	49	0	403	49	452
09:00 - 10:00	101	249	28	0	350	28	378
10:00 - 11:00	112	217	45	0	329	45	374
11:00 - 12:00	167	219	49	0	386	49	435
12:00 - 13:00	169	214	61	0	383	61	444
13:00 - 14:00	196	237	51	0	433	51	484
14:00 - 15:00	238	219	68	0	457	68	525
15:00 - 16:00	315	252	102	0	567	102	669
16:00 - 17:00	384	253	111	0	637	111	748
17:00 - 18:00	393	270	112	0	663	112	775
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2358**	**3071**	**763**	**0**	**5429**	**763**	**6192**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	278	33	No
07:00 - 08:00	543	54	No
08:00 - 09:00	403	49	No
09:00 - 10:00	350	28	No
10:00 - 11:00	329	45	No
11:00 - 12:00	386	49	No
12:00 - 13:00	383	61	No
13:00 - 14:00	433	51	No
14:00 - 15:00	457	68	No
15:00 - 16:00	567	102	No
16:00 - 17:00	637	111	No
17:00 - 18:00	663	112	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

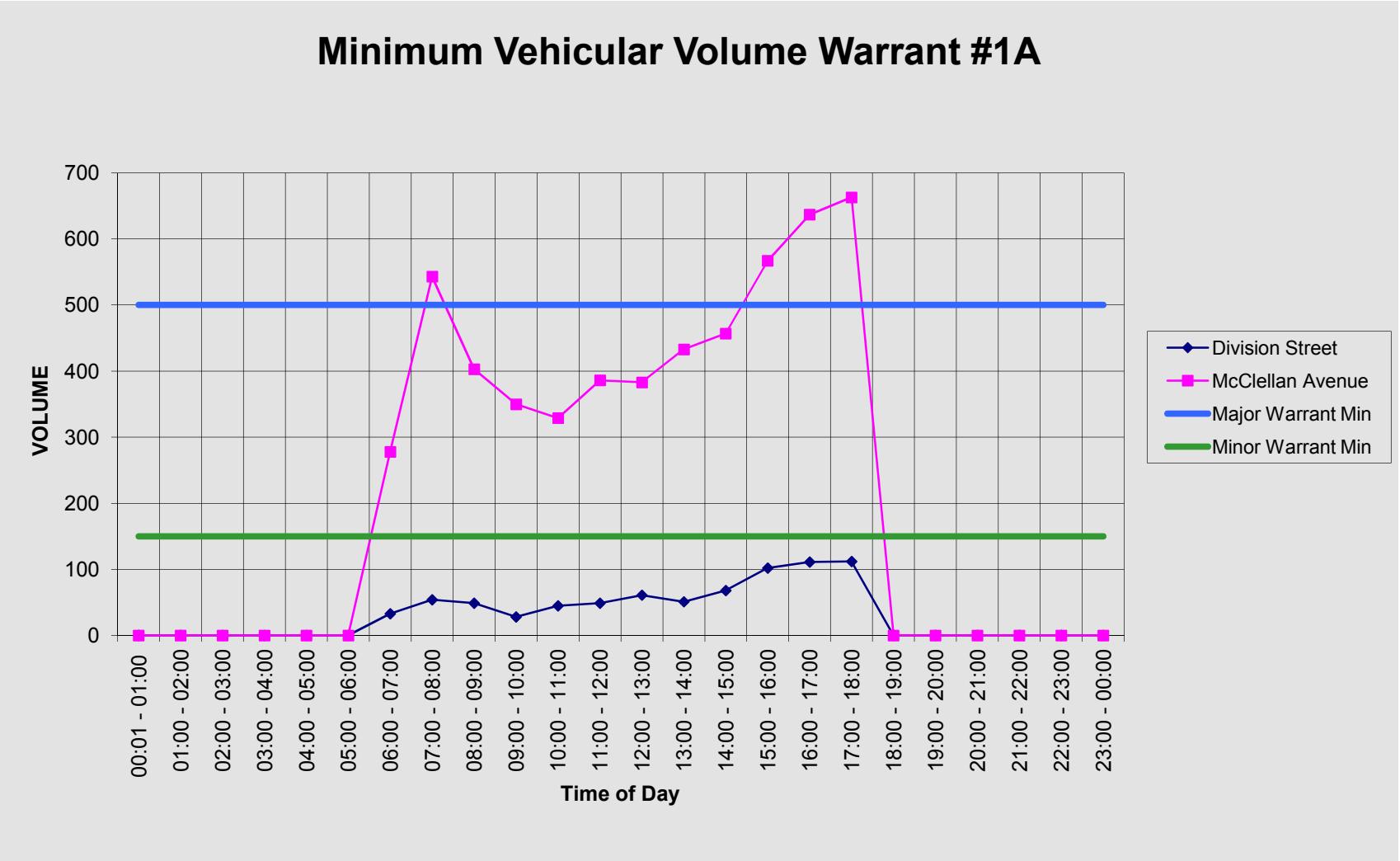
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Division Street and McClellan Avenue
Spot Number: 59 Division Street and McClellan Avenue

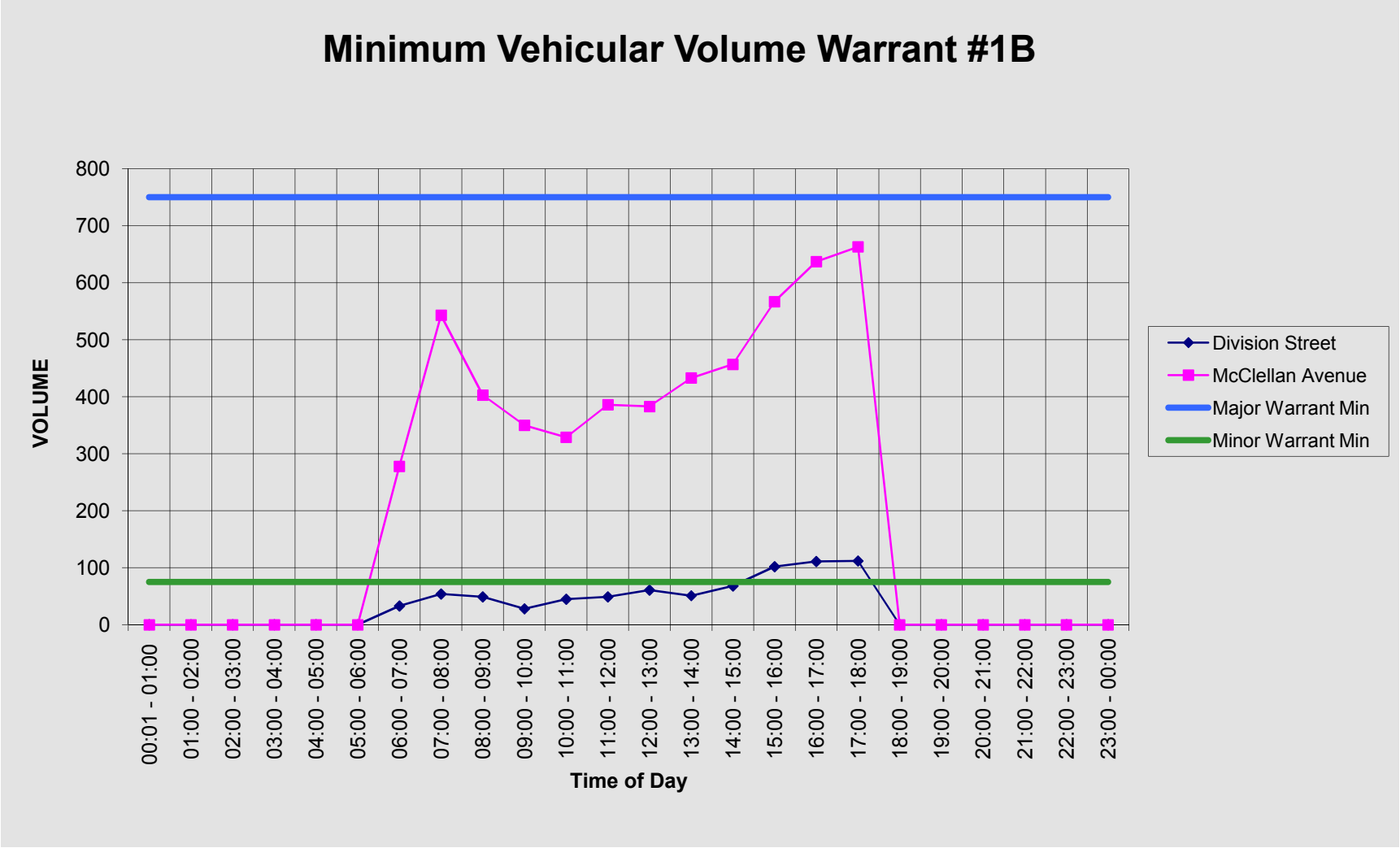
Major Street: McClellan Avenue
Minor Street: Division Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Division Street and McClellan Avenue
Spot Number: 59 Division Street and McClellan Avenue

Major Street: McClellan Avenue
Minor Street: Division Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette

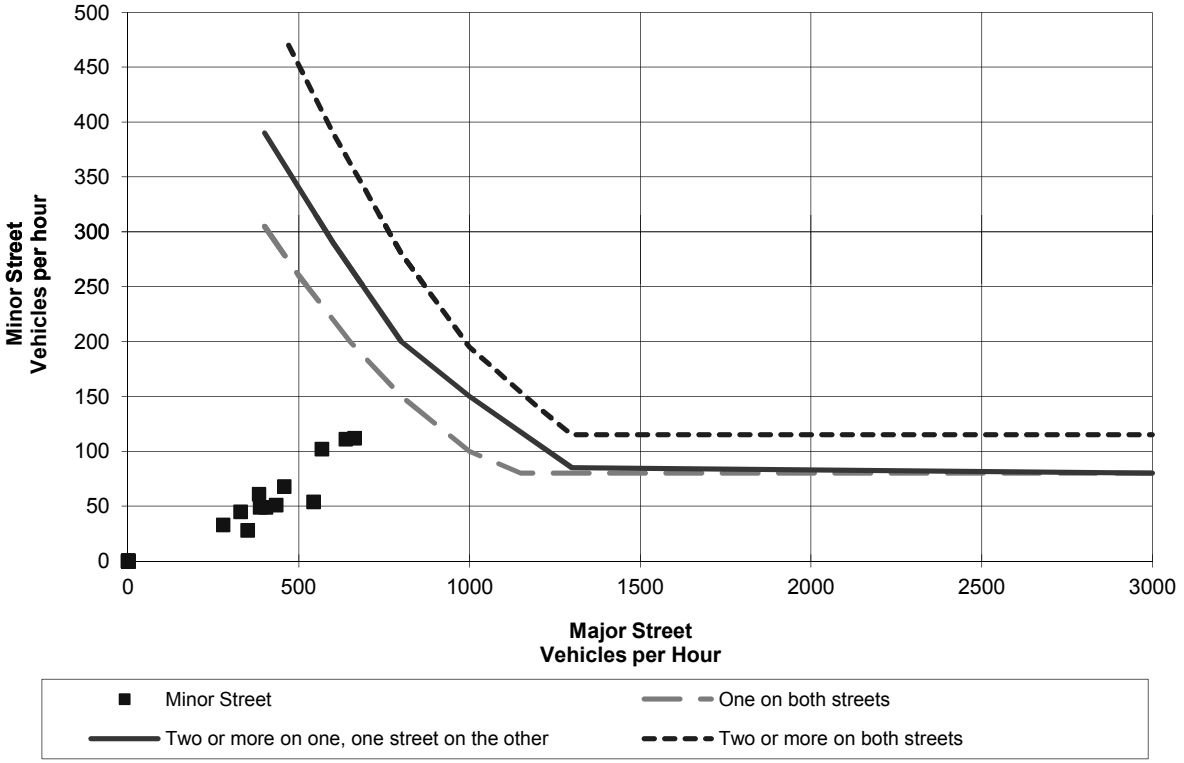
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 112 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 17:00 - 18:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette

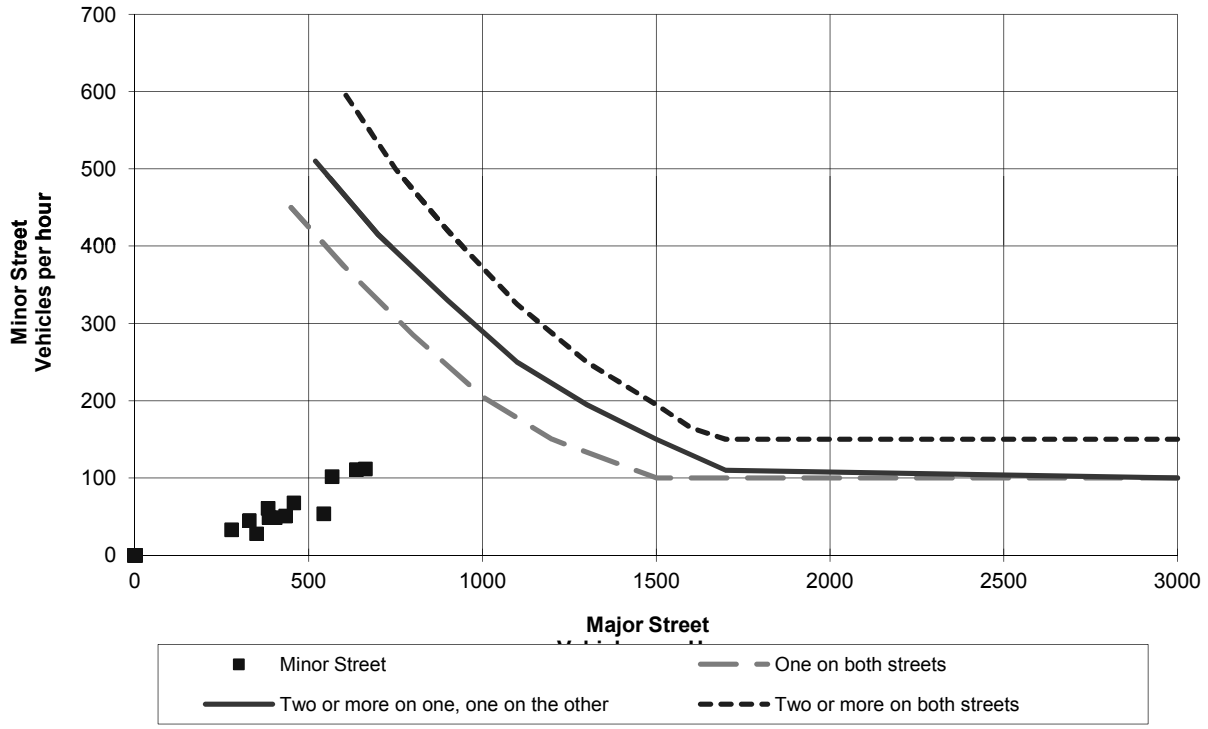
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Division Street and McClellan Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 60 Third Street and Spring Street

Major Street: Third Street Minor Street: Spring Street

Intersection: Third Street and Spring Street

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 10/9/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	28	46	12	3	74	12	89
07:00 - 08:00	73	159	39	8	232	39	279
08:00 - 09:00	93	144	36	9	237	36	282
09:00 - 10:00	125	111	37	15	236	37	288
10:00 - 11:00	160	103	71	16	263	71	350
11:00 - 12:00	188	130	73	13	318	73	404
12:00 - 13:00	218	180	90	23	398	90	511
13:00 - 14:00	187	153	112	22	340	112	474
14:00 - 15:00	219	145	109	24	364	109	497
15:00 - 16:00	239	147	78	9	386	78	473
16:00 - 17:00	275	198	117	34	473	117	624
17:00 - 18:00	303	185	98	16	488	98	602
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2108**	**1701**	**872**	**192**	**3809**	**872**	**4873**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	74	12	No
07:00 - 08:00	232	39	No
08:00 - 09:00	237	36	No
09:00 - 10:00	236	37	No
10:00 - 11:00	263	71	No
11:00 - 12:00	318	73	No
12:00 - 13:00	398	90	No
13:00 - 14:00	340	112	No
14:00 - 15:00	364	109	No
15:00 - 16:00	386	78	No
16:00 - 17:00	473	117	No
17:00 - 18:00	488	98	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

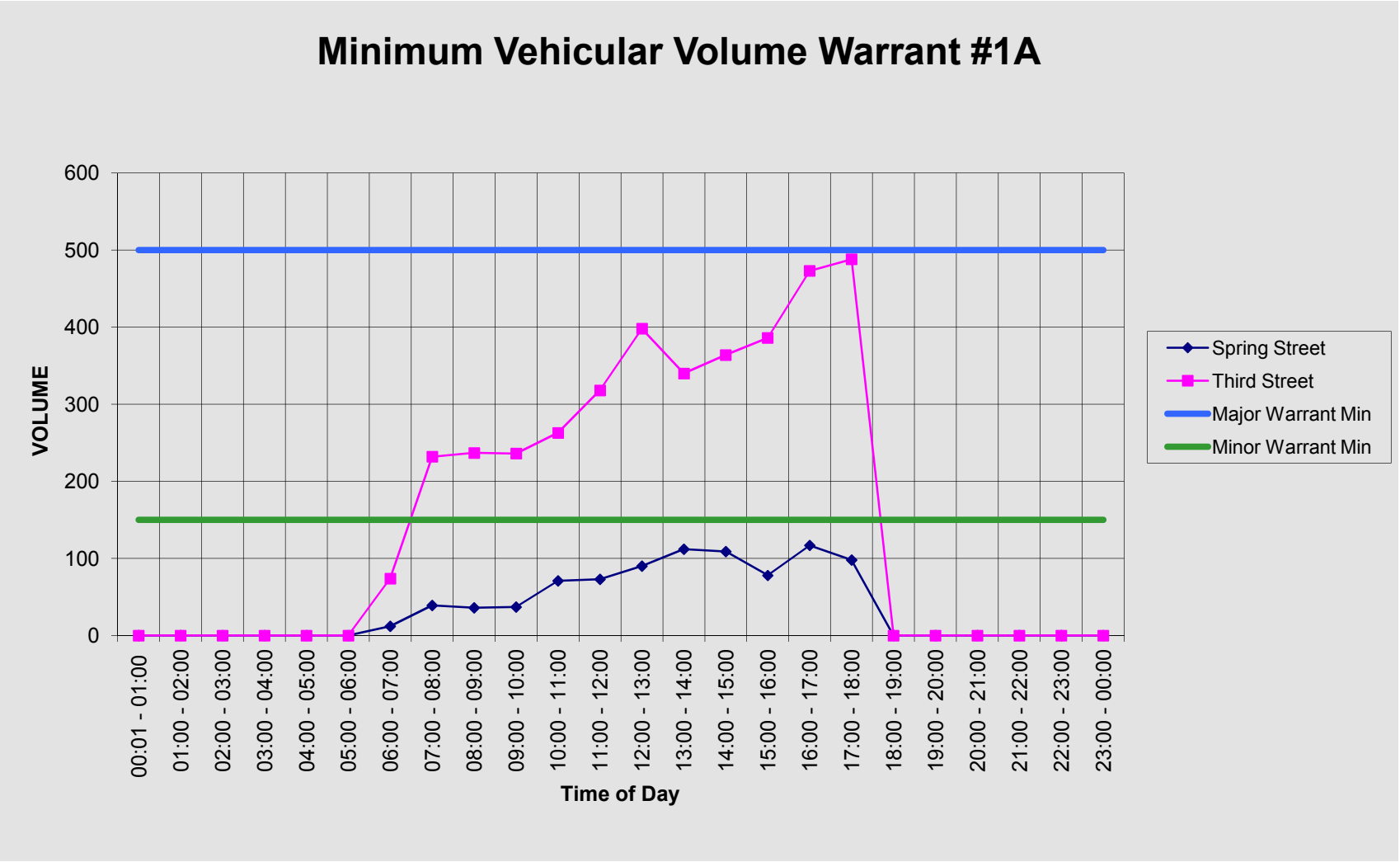
Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Third Street and Spring Street
Spot Number: 60 Third Street and Spring Street

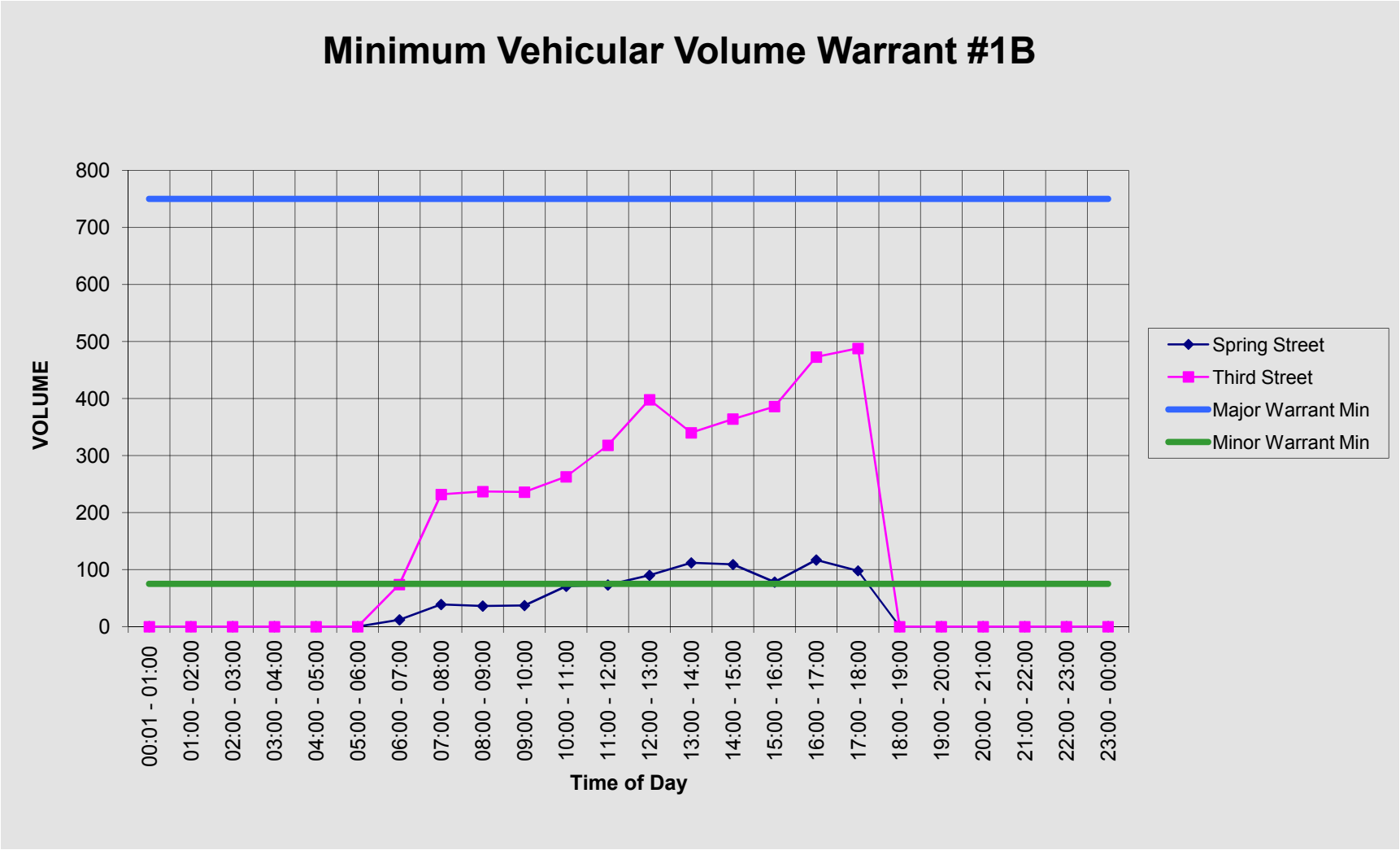
Major Street: Third Street
Minor Street: Spring Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Third Street and Spring Street
Spot Number: 60 Third Street and Spring Street

Major Street: Third Street
Minor Street: Spring Street
Date of Survey: 10/09/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette

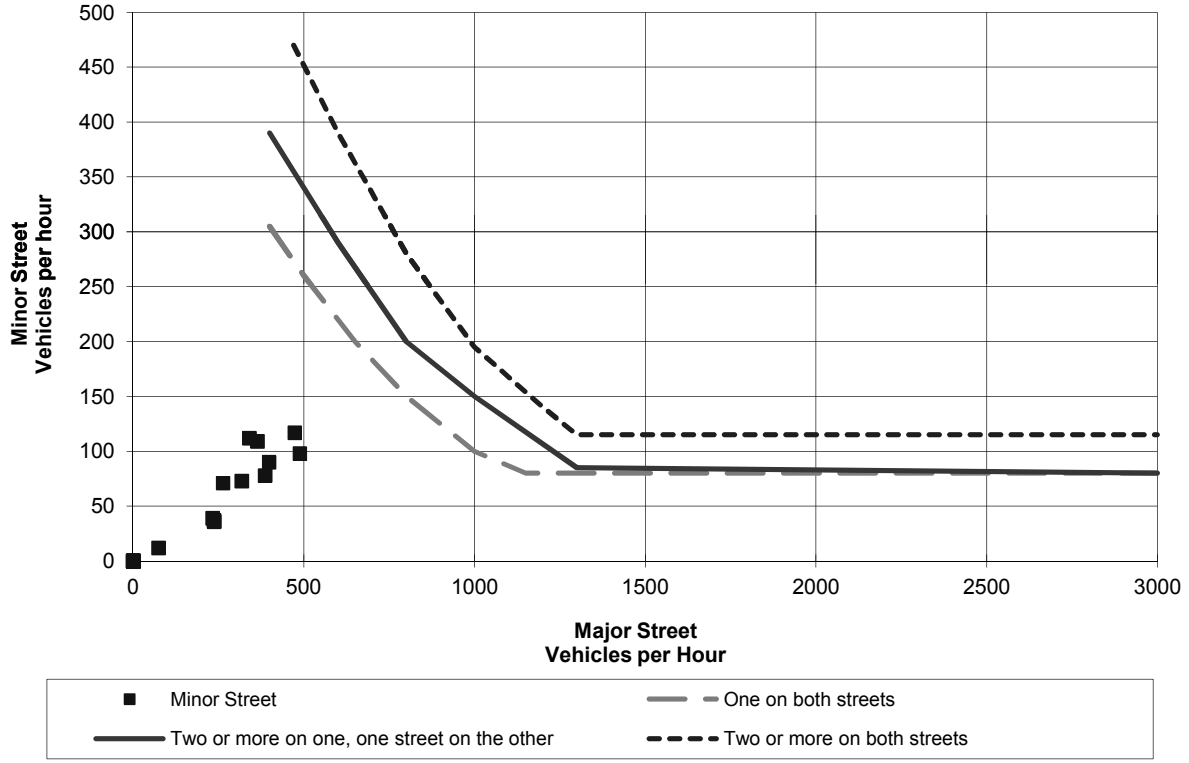
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 117 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette

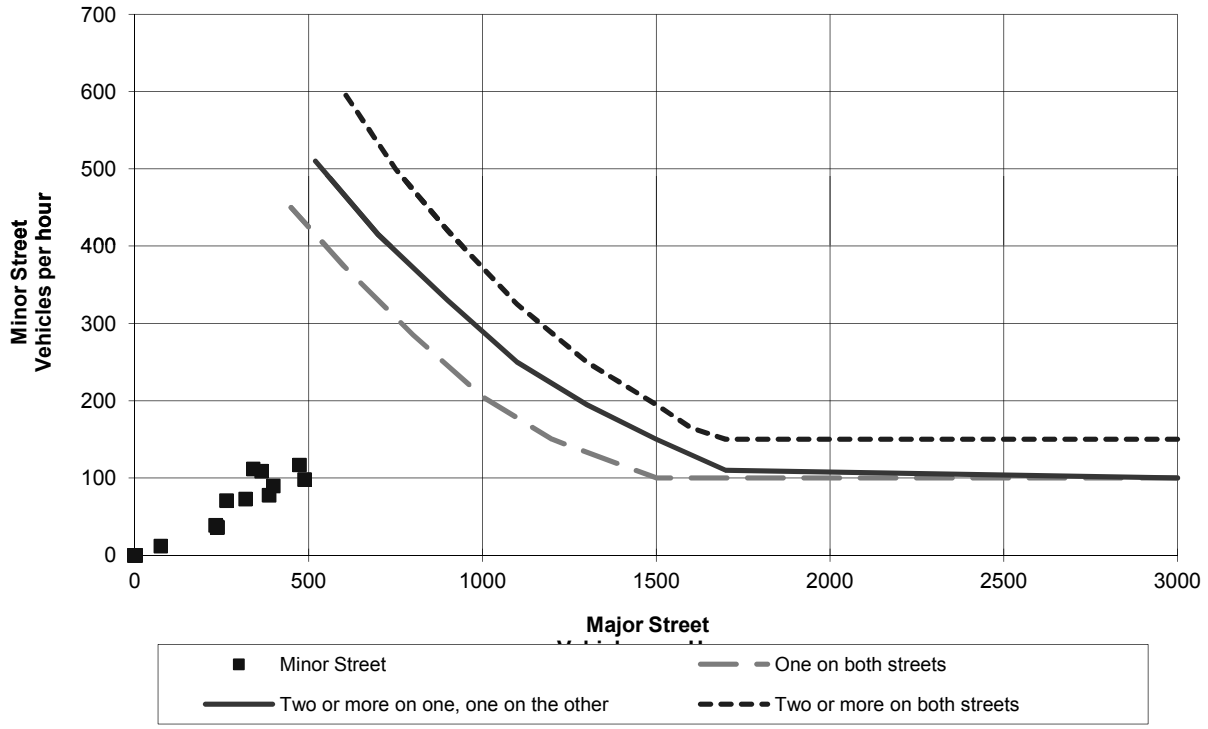
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Third Street and Spring Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**
(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Volumes Discounted for Right Turn Volumes (Left Turns at Crossovers)
Prepared by MDOT for the 2011 Edition of the MMUTCD

Spot Number:	62			
Major Street:	McClellan		Minor Street:	Ridge
Intersection:	McClellan at Ridge			
City/Twp:	Marquette			
Date Performed:	3/19/2014 w/RT Red.	Performed By:	KMM	
Date Volumes Collected:	12/4/2013			

Percent Discount	**0%**	**0%**	**50%**	**0%**			
	Major NB	**Major SB**	**Minor EB**	**Minor WB**	**Total Major**	**Highest Minor**	**Total**
Turn Percentage	**5%**	**16%**	**53%**	**32%**			
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	142	95	25	7	237	25	269
07:00 - 08:00	528	255	60	13	783	60	856
08:00 - 09:00	432	284	92	31	716	92	839
09:00 - 10:00	363	337	85	30	700	85	815
10:00 - 11:00	336	344	101	40	680	101	821
11:00 - 12:00	347	400	112	40	747	112	899
12:00 - 13:00	457	426	133	56	883	133	1072
13:00 - 14:00	405	366	111	61	771	111	943
14:00 - 15:00	398	479	111	47	877	111	1035
15:00 - 16:00	420	488	113	47	908	113	1068
16:00 - 17:00	455	591	127	68	1046	127	1241
17:00 - 18:00	423	504	145	46	927	145	1118
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**4706**	**4569**	**1213**	**486**	**9275**	**1213**	**10974**

Summary of Warrants

Spot Number:	62		
Major Street:	McClellan	Minor Street:	Ridge
Intersection:	McClellan at Ridge		
City/Twp:	Marquette		
Date Performed:	3/19/2014 w/RT Red.	Performed By:	KMM
Date Volumes Collected:	12/4/2013		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	NO
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**NO**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 64 McClellan Avenue and Baraga Avenue

Major Street: McClellan Avenue Minor Street: Baraga Avenue

Intersection: McClellan Avenue and Baraga Avenue

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 12/3/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	75	165	11	4	240	11	255
07:00 - 08:00	204	558	36	12	762	36	810
08:00 - 09:00	238	498	59	46	736	59	841
09:00 - 10:00	301	448	59	80	749	80	888
10:00 - 11:00	332	392	62	112	724	112	898
11:00 - 12:00	361	423	73	168	784	168	1025
12:00 - 13:00	409	460	103	155	869	155	1127
13:00 - 14:00	401	420	80	164	821	164	1065
14:00 - 15:00	451	430	73	140	881	140	1094
15:00 - 16:00	486	451	84	157	937	157	1178
16:00 - 17:00	534	472	88	169	1006	169	1263
17:00 - 18:00	533	389	65	113	922	113	1100
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**4325**	**5106**	**793**	**1320**	**9431**	**1364**	**11544**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 2 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	240	11	No
07:00 - 08:00	762	36	No
08:00 - 09:00	736	59	No
09:00 - 10:00	749	80	No
10:00 - 11:00	724	112	No
11:00 - 12:00	784	168	Yes
12:00 - 13:00	869	155	Yes
13:00 - 14:00	821	164	Yes
14:00 - 15:00	881	140	No
15:00 - 16:00	937	157	Yes
16:00 - 17:00	1006	169	Yes
17:00 - 18:00	922	113	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

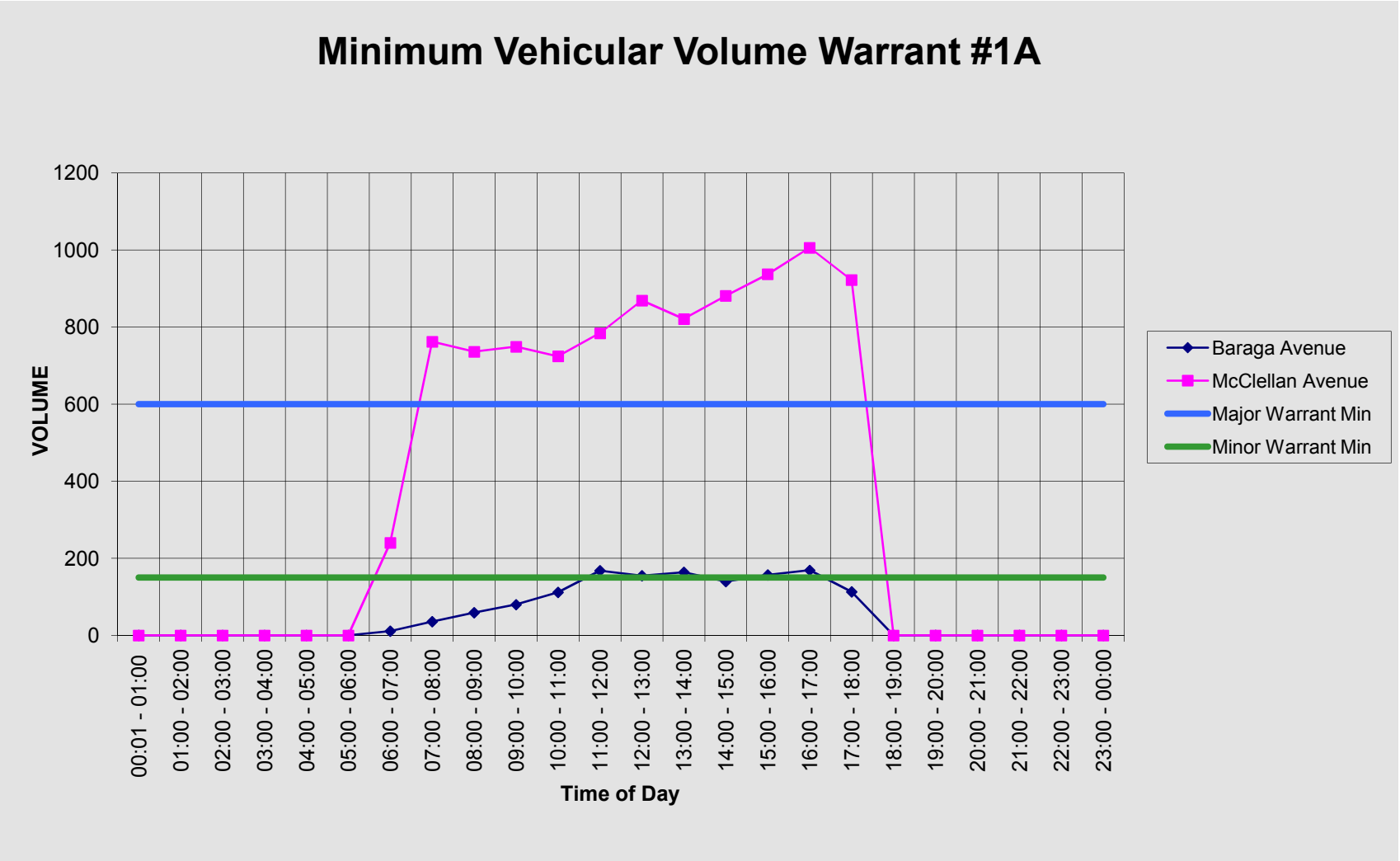
Total Hours Met: 5

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: McClellan Avenue and Baraga Avenue
Spot Number: 64 McClellan Avenue and Baraga Avenue

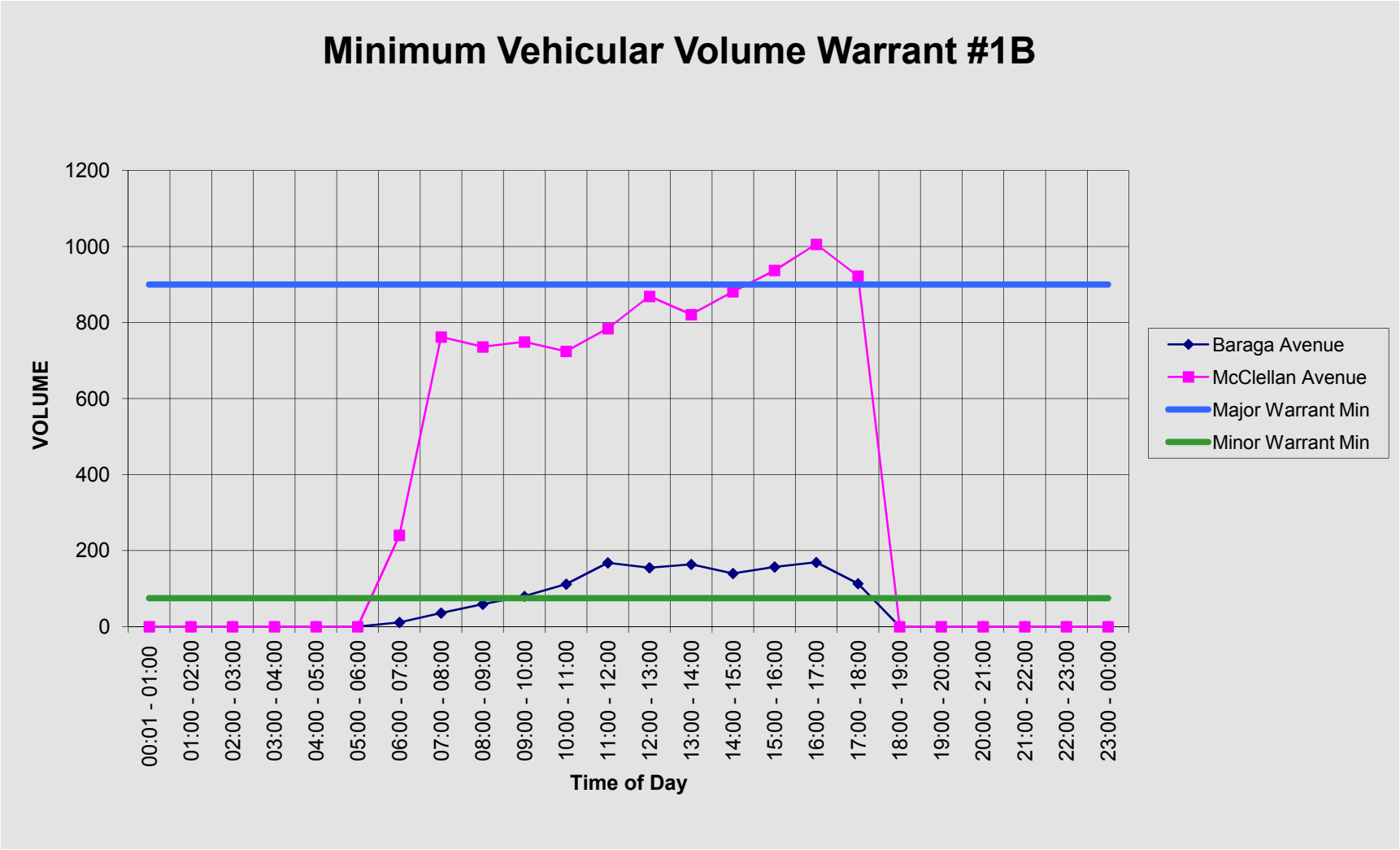
Major Street: McClellan Avenue
Minor Street: Baraga Avenue
Date of Survey: 12/03/13



NUMBER OF HOURS MET: 5

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: McClellan Avenue and Baraga Avenue
Spot Number: 64 McClellan Avenue and Baraga Avenue

Major Street: McClellan Avenue
Minor Street: Baraga Avenue
Date of Survey: 12/03/13



NUMBER OF HOURS MET: 3

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette

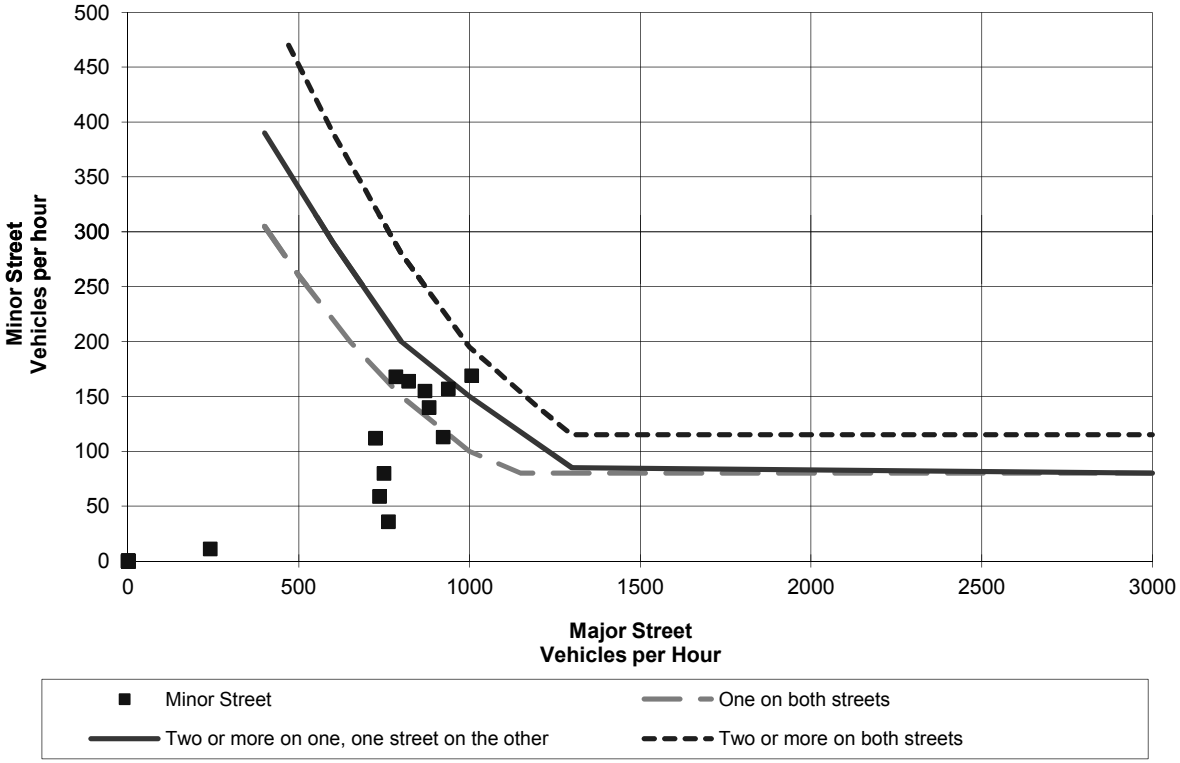
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.7

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 169 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 16:00 - 17:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette

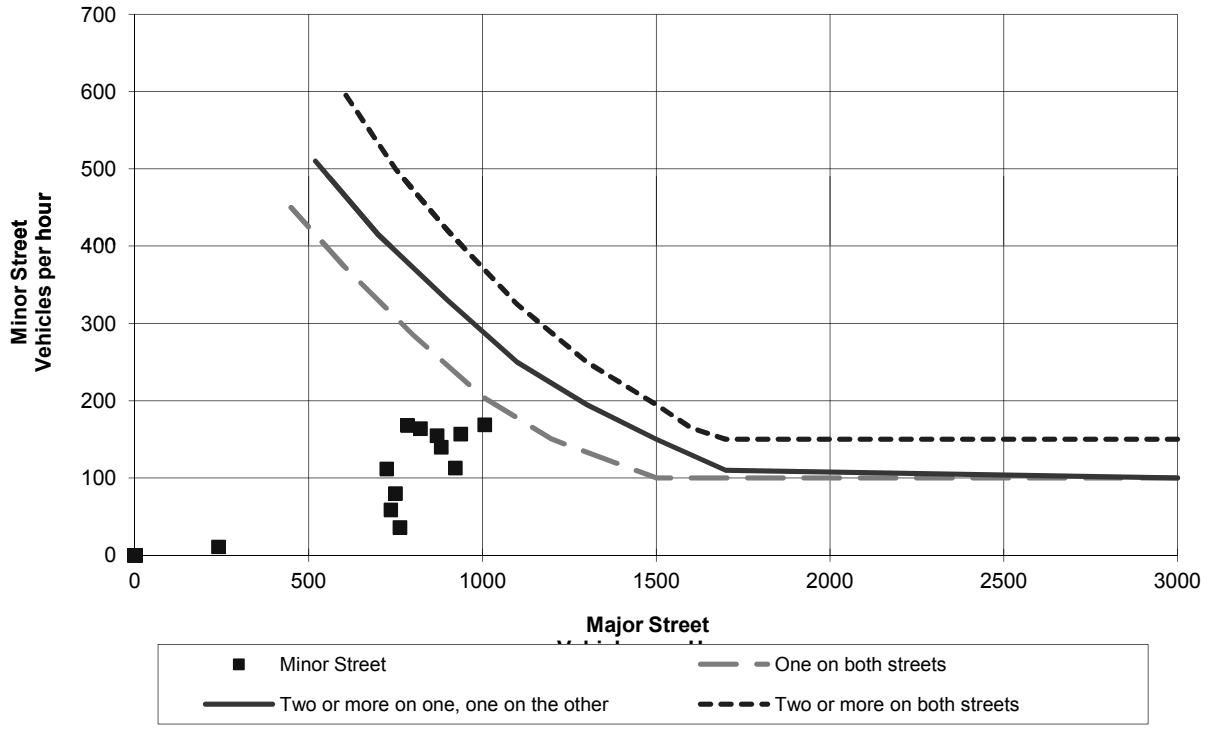
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 2 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: McClellan Avenue and Baraga Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Volumes Discounted for Right Turn Volumes (Left Turns at Crossovers)
Prepared by MDOT for the 2011 Edition of the MMUTCD

Spot Number:	66			
Major Street:	McClellan		Minor Street:	O'Dovero
Intersection:	McClellan at O'Dovero			
City/Twp:	Marquette			
Date Performed:	3/19/2014 w/RT Red	Performed By:	KMM	
Date Volumes Collected:	12/3/2013			

Percent Discount	**0%**	**0%**	**0%**	**50%**			
	Major NB	**Major SB**	**Minor EB**	**Minor WB**	**Total Major**	**Highest Minor**	**Total**
Turn Percentage	**0%**	**37%**	**28%**	**92%**			
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	165	85	19	4	250	19	273
07:00 - 08:00	475	214	63	4	689	63	756
08:00 - 09:00	413	261	66	2	674	66	742
09:00 - 10:00	309	306	110	1	615	110	726
10:00 - 11:00	283	328	154	2	611	154	767
11:00 - 12:00	280	382	202	1	662	202	865
12:00 - 13:00	306	421	208	5	727	208	940
13:00 - 14:00	305	446	194	1	751	194	946
14:00 - 15:00	318	558	241	3	876	241	1120
15:00 - 16:00	349	615	244	2	964	244	1210
16:00 - 17:00	365	630	255	2	995	255	1252
17:00 - 18:00	339	651	230	0	990	230	1220
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3907**	**4897**	**1986**	**23**	**8804**	**1986**	**10813**

Summary of Warrants

Spot Number:	66		
Major Street:	McClellan	Minor Street:	O'Dovero
Intersection:	McClellan at O'Dovero		
City/Twp:	Marquette		
Date Performed:	3/19/2014 w/RT Red	Performed By:	KMM
Date Volumes Collected:	12/3/2013		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**YES**
	Condition A	YES
	Condition B	NO
	Condition A&B	NO
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**YES**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**NO**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**YES**
	Condition A	NO
	Condition B	YES
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 67 Grove Street and McClellan Avenue

Major Street: McClellan Avenue Minor Street: Grove Street

Intersection: Grove Street and McClellan Avenue

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 12/3/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	54	177	24	57	231	57	312
07:00 - 08:00	145	479	66	169	624	169	859
08:00 - 09:00	172	413	78	126	585	126	789
09:00 - 10:00	182	295	51	88	477	88	616
10:00 - 11:00	208	268	44	51	476	51	571
11:00 - 12:00	218	232	65	68	450	68	583
12:00 - 13:00	278	249	92	99	527	99	718
13:00 - 14:00	268	239	85	77	507	85	669
14:00 - 15:00	368	279	113	83	647	113	843
15:00 - 16:00	433	332	137	89	765	137	991
16:00 - 17:00	489	330	164	96	819	164	1079
17:00 - 18:00	518	291	139	110	809	139	1058
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3333**	**3584**	**1058**	**1113**	**6917**	**1296**	**9088**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 2 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	231	57	No
07:00 - 08:00	624	169	Yes
08:00 - 09:00	585	126	No
09:00 - 10:00	477	88	No
10:00 - 11:00	476	51	No
11:00 - 12:00	450	68	No
12:00 - 13:00	527	99	No
13:00 - 14:00	507	85	No
14:00 - 15:00	647	113	No
15:00 - 16:00	765	137	No
16:00 - 17:00	819	164	Yes
17:00 - 18:00	809	139	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

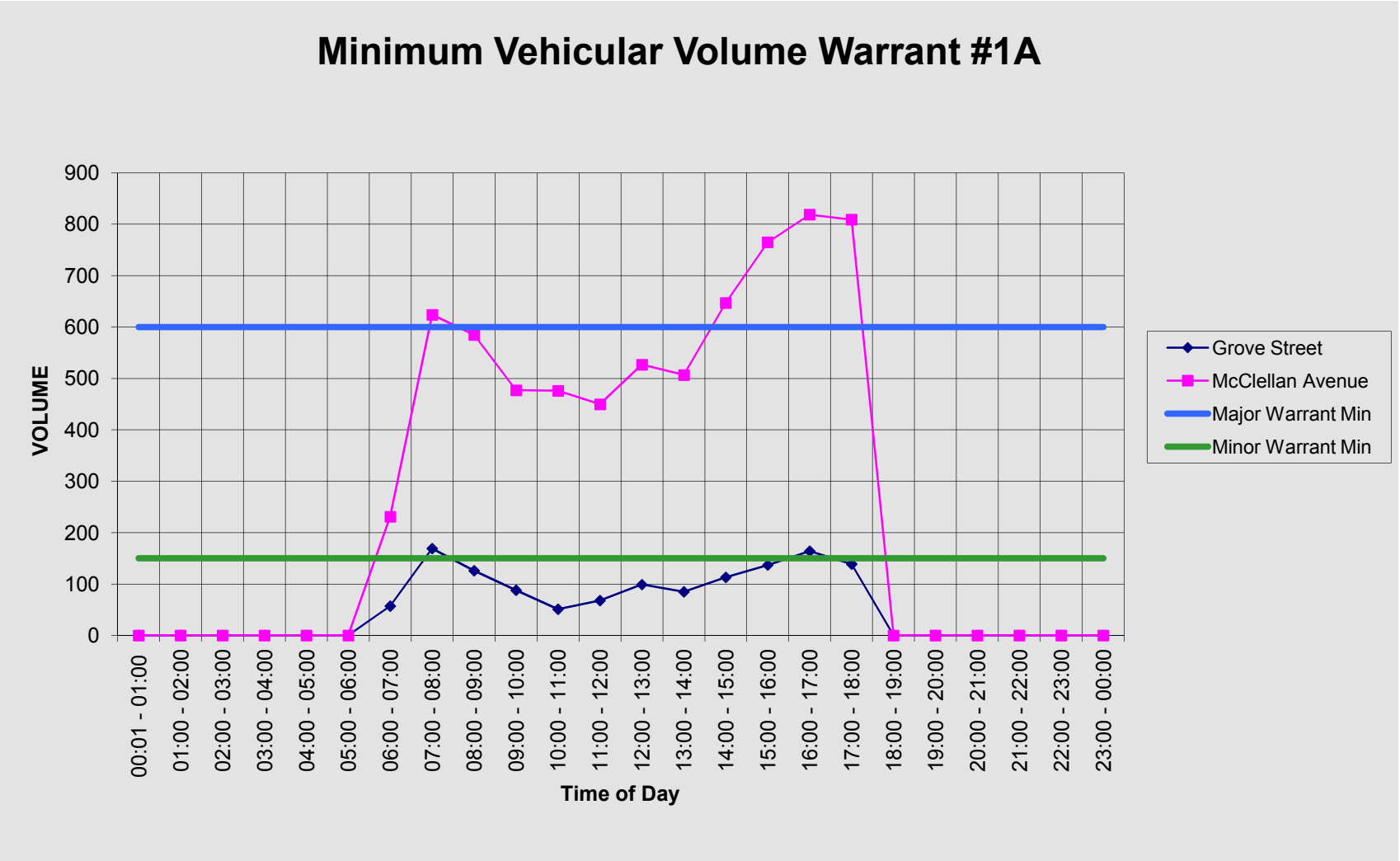
Total Hours Met: 2

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Grove Street and McClellan Avenue
Spot Number: 67 Grove Street and McClellan Avenue

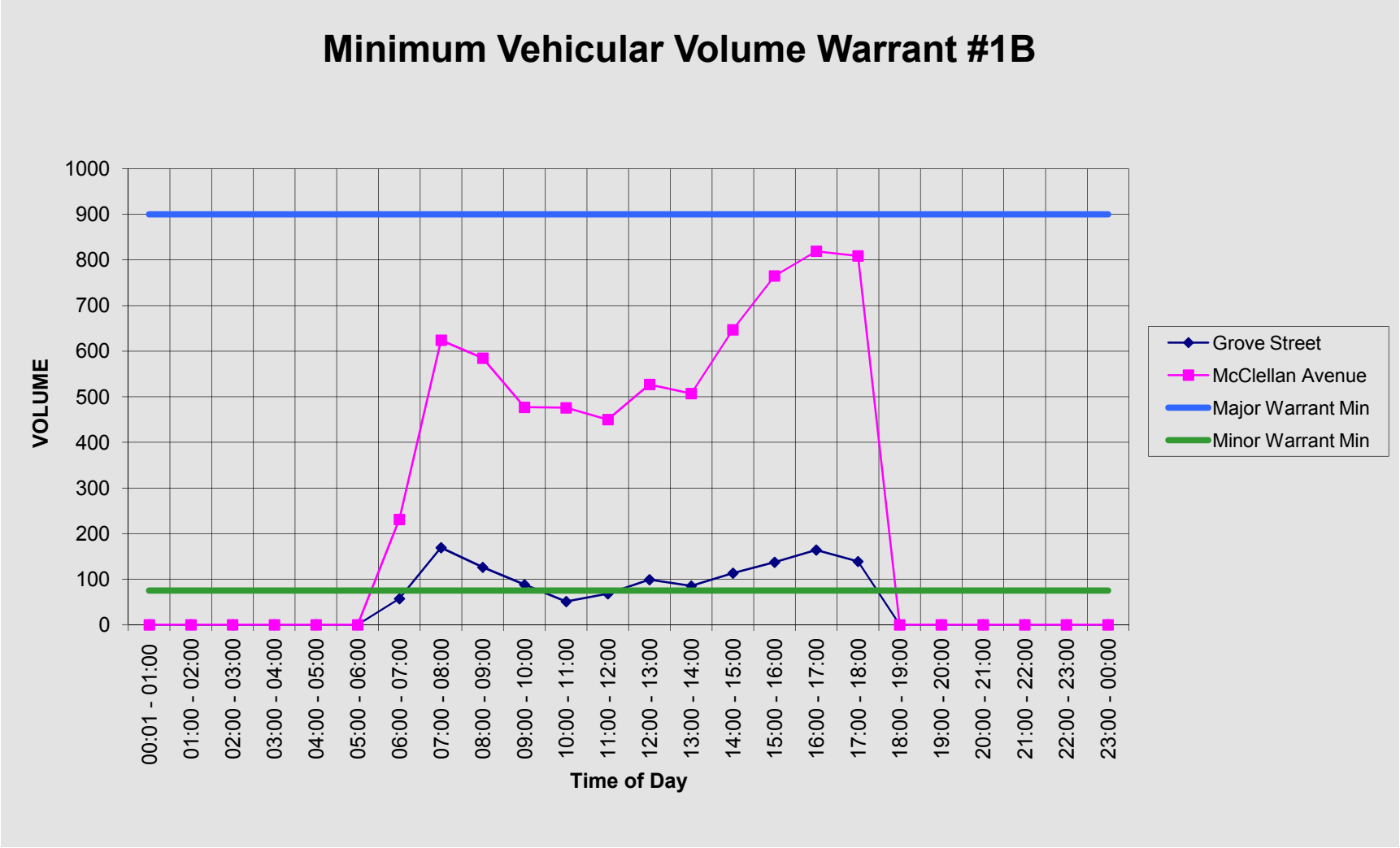
Major Street: McClellan Avenue
Minor Street: Grove Street
Date of Survey: 12/03/13



NUMBER OF HOURS MET: 2

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Grove Street and McClellan Avenue
Spot Number: 67 Grove Street and McClellan Avenue

Major Street: McClellan Avenue
Minor Street: Grove Street
Date of Survey: 12/03/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette

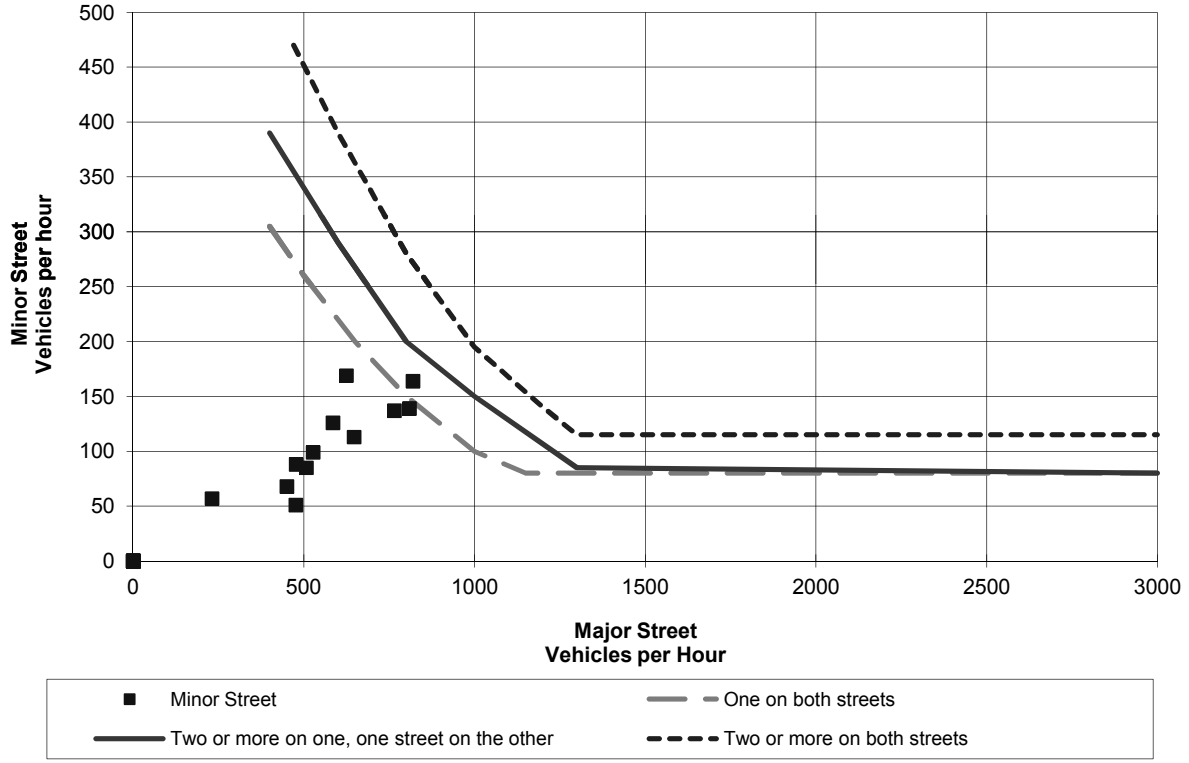
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.7

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 169 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 07:00 - 08:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette

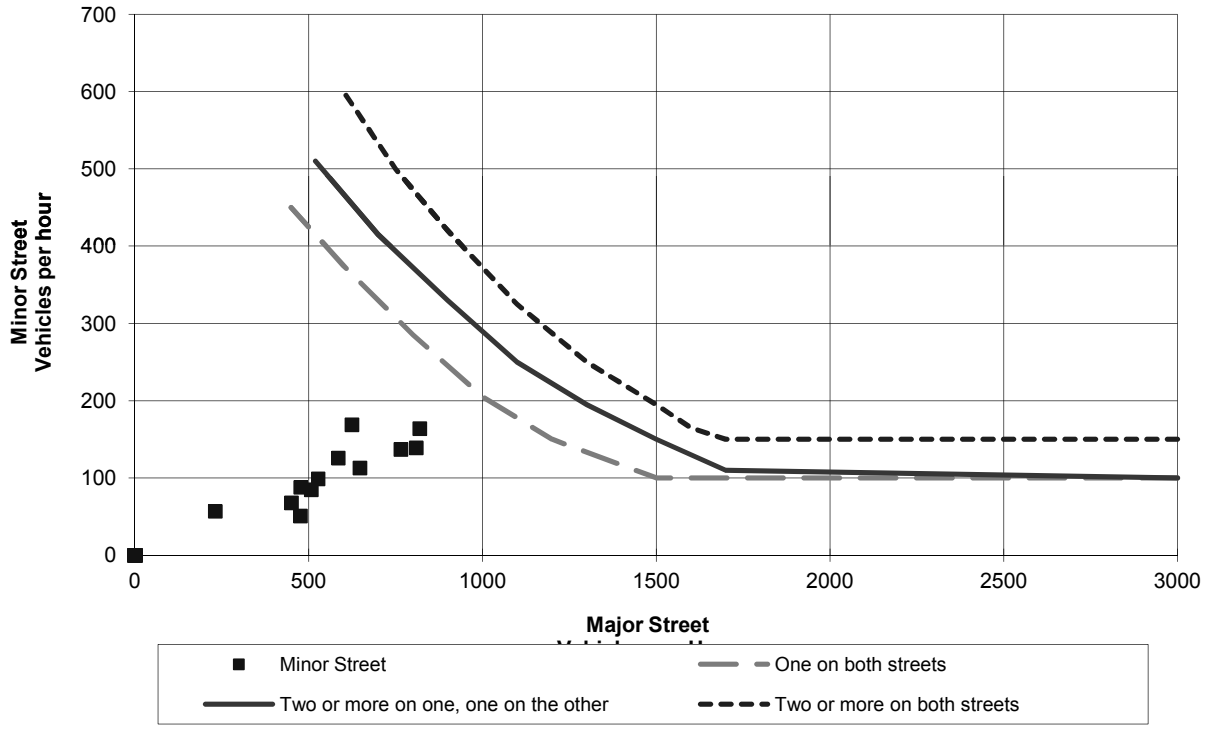
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 2 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? No **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Grove Street and McClellan Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 68 Pioneer Road and McClellan Avenue

Major Street: McClellan Avenue Minor Street: Pioneer Road

Intersection: Pioneer Road and McClellan Avenue

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 12/3/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	61	146	32	1	207	32	240
07:00 - 08:00	171	350	138	1	521	138	660
08:00 - 09:00	132	283	113	3	415	113	531
09:00 - 10:00	163	207	54	3	370	54	427
10:00 - 11:00	173	214	57	3	387	57	447
11:00 - 12:00	191	161	54	5	352	54	411
12:00 - 13:00	256	176	73	6	432	73	511
13:00 - 14:00	242	185	66	7	427	66	500
14:00 - 15:00	373	183	99	8	556	99	663
15:00 - 16:00	410	201	91	1	611	91	703
16:00 - 17:00	474	205	104	4	679	104	787
17:00 - 18:00	484	198	78	3	682	78	763
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**3130**	**2509**	**959**	**45**	**5639**	**959**	**6643**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 2 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	207	32	No
07:00 - 08:00	521	138	No
08:00 - 09:00	415	113	No
09:00 - 10:00	370	54	No
10:00 - 11:00	387	57	No
11:00 - 12:00	352	54	No
12:00 - 13:00	432	73	No
13:00 - 14:00	427	66	No
14:00 - 15:00	556	99	No
15:00 - 16:00	611	91	No
16:00 - 17:00	679	104	No
17:00 - 18:00	682	78	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

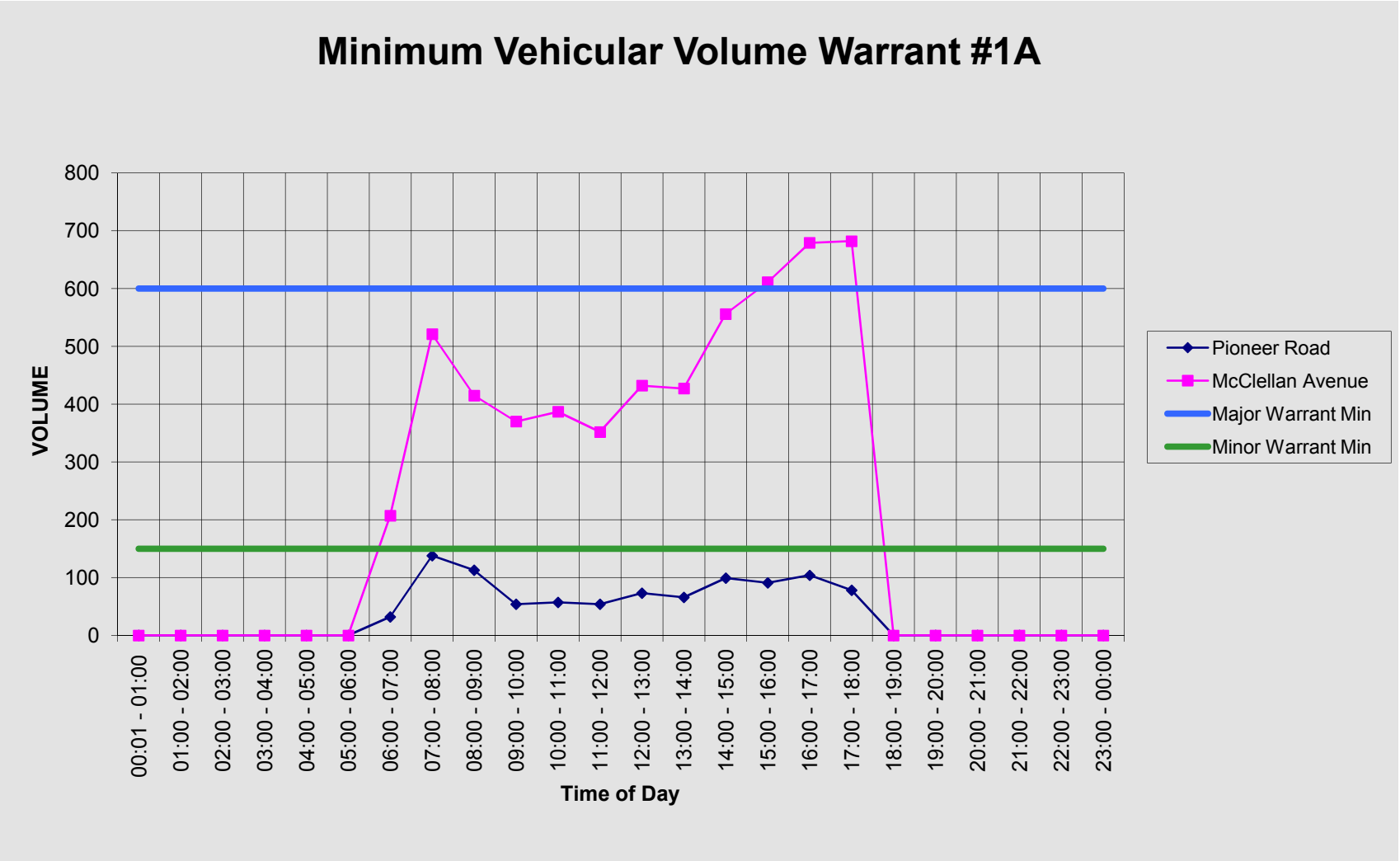
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Pioneer Road and McClellan Avenue
Spot Number: 68 Pioneer Road and McClellan Avenue

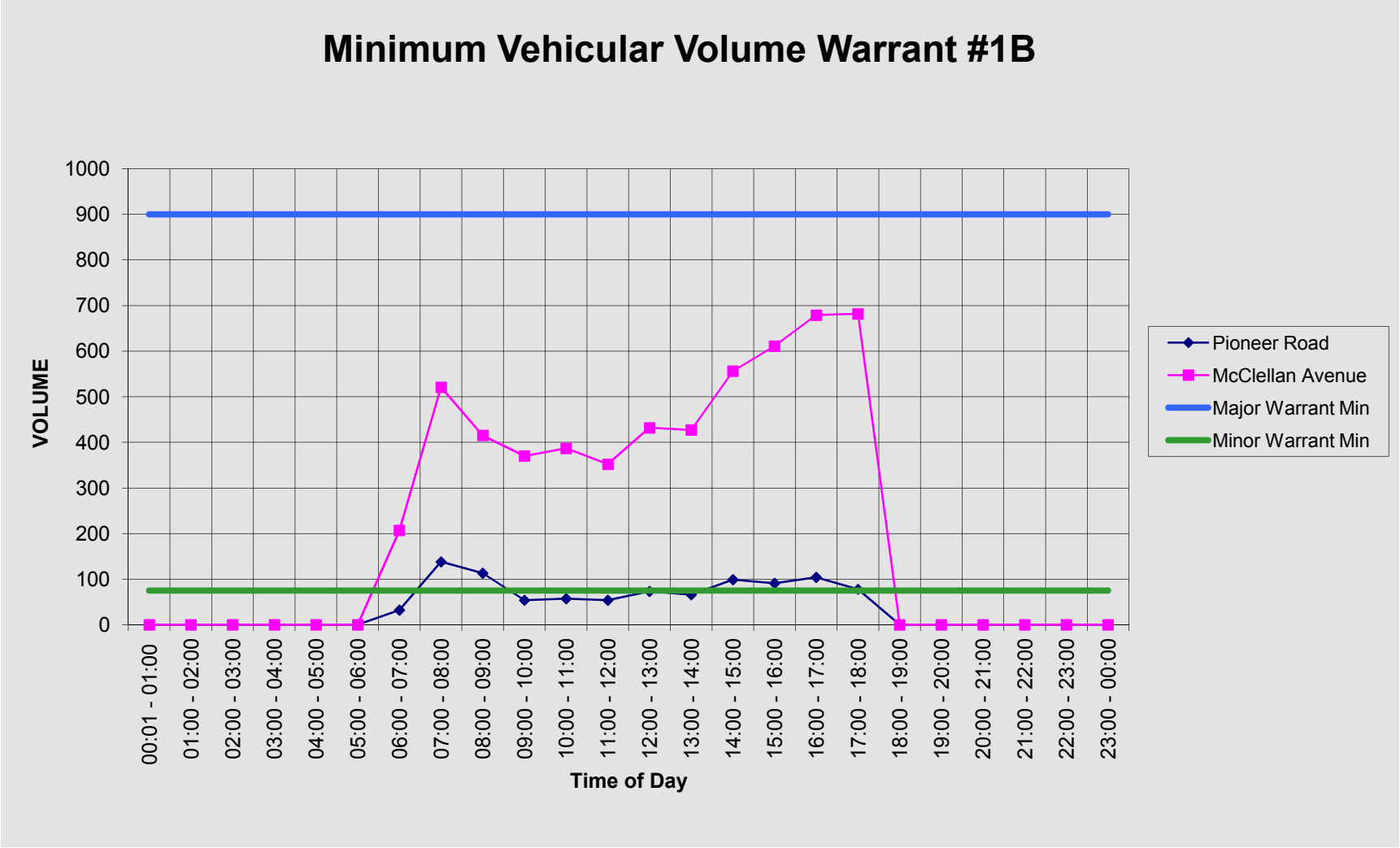
Major Street: McClellan Avenue
Minor Street: Pioneer Road
Date of Survey: 12/03/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Pioneer Road and McClellan Avenue
Spot Number: 68 Pioneer Road and McClellan Avenue

Major Street: McClellan Avenue
Minor Street: Pioneer Road
Date of Survey: 12/03/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette

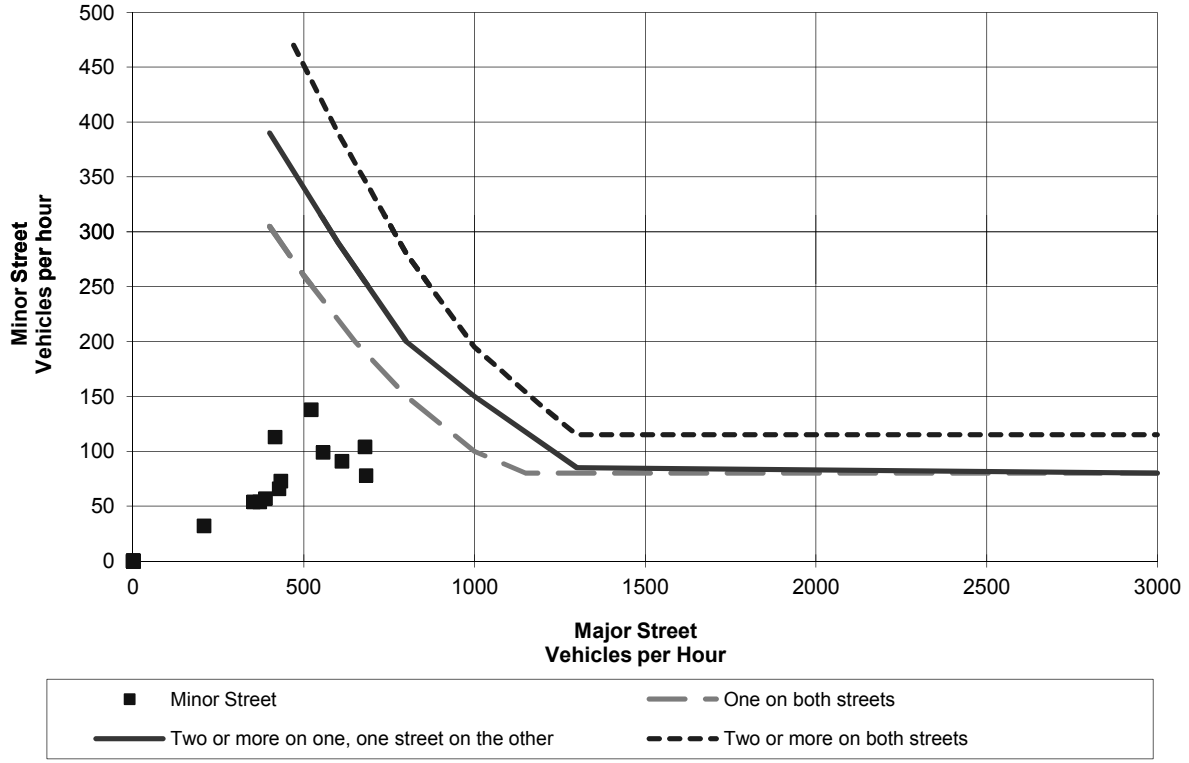
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.1

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 138 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? Yes

Hour of the day where maximum volume for side street 07:00 - 08:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette

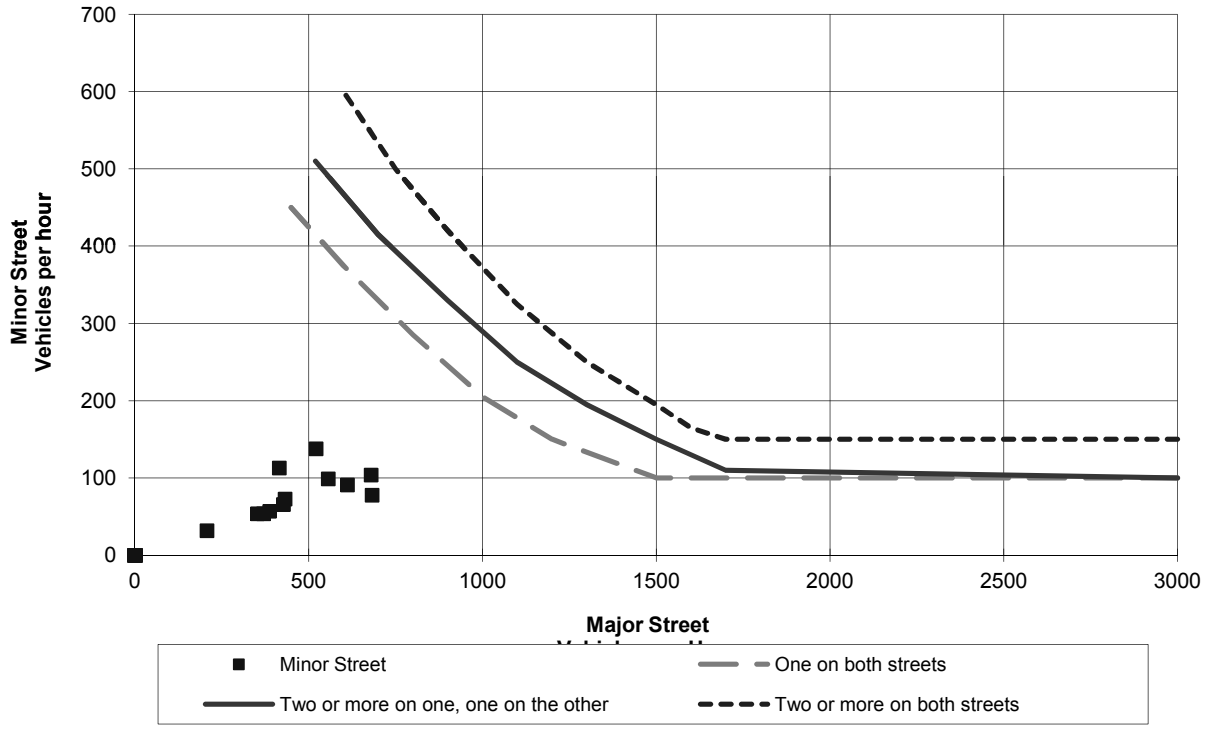
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 2 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Pioneer Road and McClellan Avenue
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**
(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Volumes Discounted for Right Turn Volumes (Left Turns at Crossovers)
Prepared by MDOT for the 2011 Edition of the MMUTCD

Spot Number:	69			
Major Street:	Wright		Minor Street:	Lincoln
Intersection:	Wright at Lincoln			
City/Twp:	Marquette			
Date Performed:	3/19/2014 No RT Red	Performed By:	KMM	
Date Volumes Collected:	12/3/2013			

Percent Discount	**50%**	**0%**	**0%**	**0%**			
	Minor NB	**Minor SB**	**Major EB**	**Major WB**	**Total Major**	**Highest Minor**	**Total**
Turn Percentage	**65%**	**33%**	**21%**	**1%**			
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	28	0	170	114	284	28	312
07:00 - 08:00	50	1	360	294	654	50	705
08:00 - 09:00	66	3	411	310	721	66	790
09:00 - 10:00	84	5	387	355	742	84	831
10:00 - 11:00	78	8	276	356	632	78	718
11:00 - 12:00	101	7	388	422	810	101	918
12:00 - 13:00	134	3	421	451	872	134	1009
13:00 - 14:00	134	2	389	452	841	134	977
14:00 - 15:00	142	7	404	509	913	142	1062
15:00 - 16:00	135	2	416	589	1005	135	1142
16:00 - 17:00	159	6	444	619	1063	159	1228
17:00 - 18:00	139	8	457	585	1042	139	1189
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1248**	**52**	**4523**	**5056**	**9579**	**1248**	**10879**

Summary of Warrants

Spot Number:	69		
Major Street:	Wright	Minor Street:	Lincoln
Intersection:	Wright at Lincoln		
City/Twp:	Marquette		
Date Performed:	3/19/2014 No RT Red	Performed By:	KMM
Date Volumes Collected:	12/3/2013		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	NO
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**YES**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**NO**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 72 Lincoln Avenue and Cleveland Street

Major Street: Lincoln Avenue Minor Street: Cleveland Street

Intersection: Lincoln Avenue and Cleveland Street

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 12/4/2013

	Major SB	Major NB	Minor EB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	53	108	67	0	161	67	228
07:00 - 08:00	160	239	81	0	399	81	480
08:00 - 09:00	105	160	97	0	265	97	362
09:00 - 10:00	160	118	77	0	278	77	355
10:00 - 11:00	160	106	56	0	266	56	322
11:00 - 12:00	214	97	71	0	311	71	382
12:00 - 13:00	257	132	86	0	389	86	475
13:00 - 14:00	196	121	84	0	317	84	401
14:00 - 15:00	291	103	82	0	394	82	476
15:00 - 16:00	300	85	78	0	385	78	463
16:00 - 17:00	330	97	76	0	427	76	503
17:00 - 18:00	239	107	73	0	346	73	419
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2465**	**1473**	**928**	**0**	**3938**	**928**	**4866**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lincoln Avenue and Cleveland Street
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	161	67	No
07:00 - 08:00	399	81	No
08:00 - 09:00	265	97	No
09:00 - 10:00	278	77	No
10:00 - 11:00	266	56	No
11:00 - 12:00	311	71	No
12:00 - 13:00	389	86	No
13:00 - 14:00	317	84	No
14:00 - 15:00	394	82	No
15:00 - 16:00	385	78	No
16:00 - 17:00	427	76	No
17:00 - 18:00	346	73	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

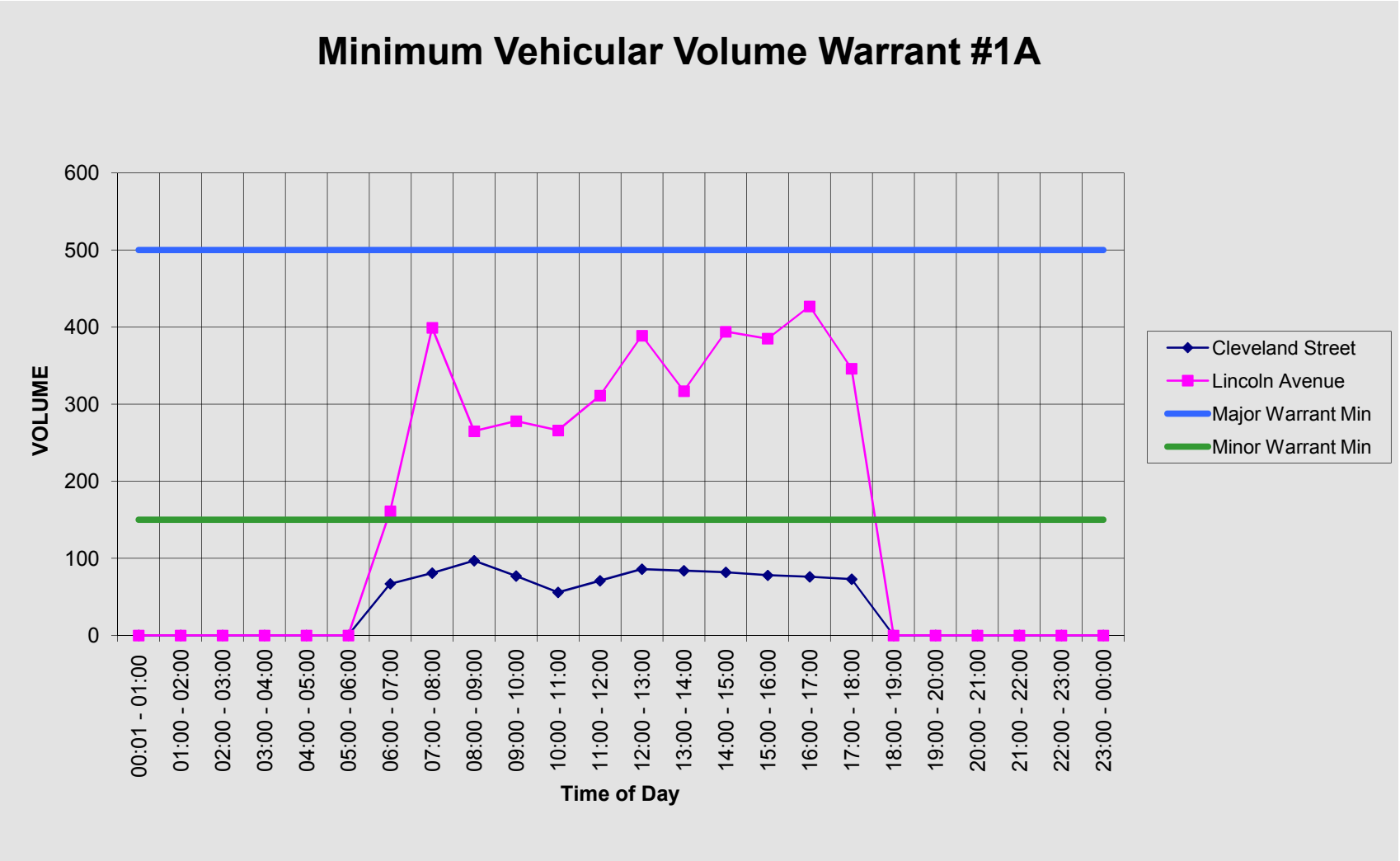
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lincoln Avenue and Cleveland Street
Spot Number: 72 Lincoln Avenue and Cleveland Street

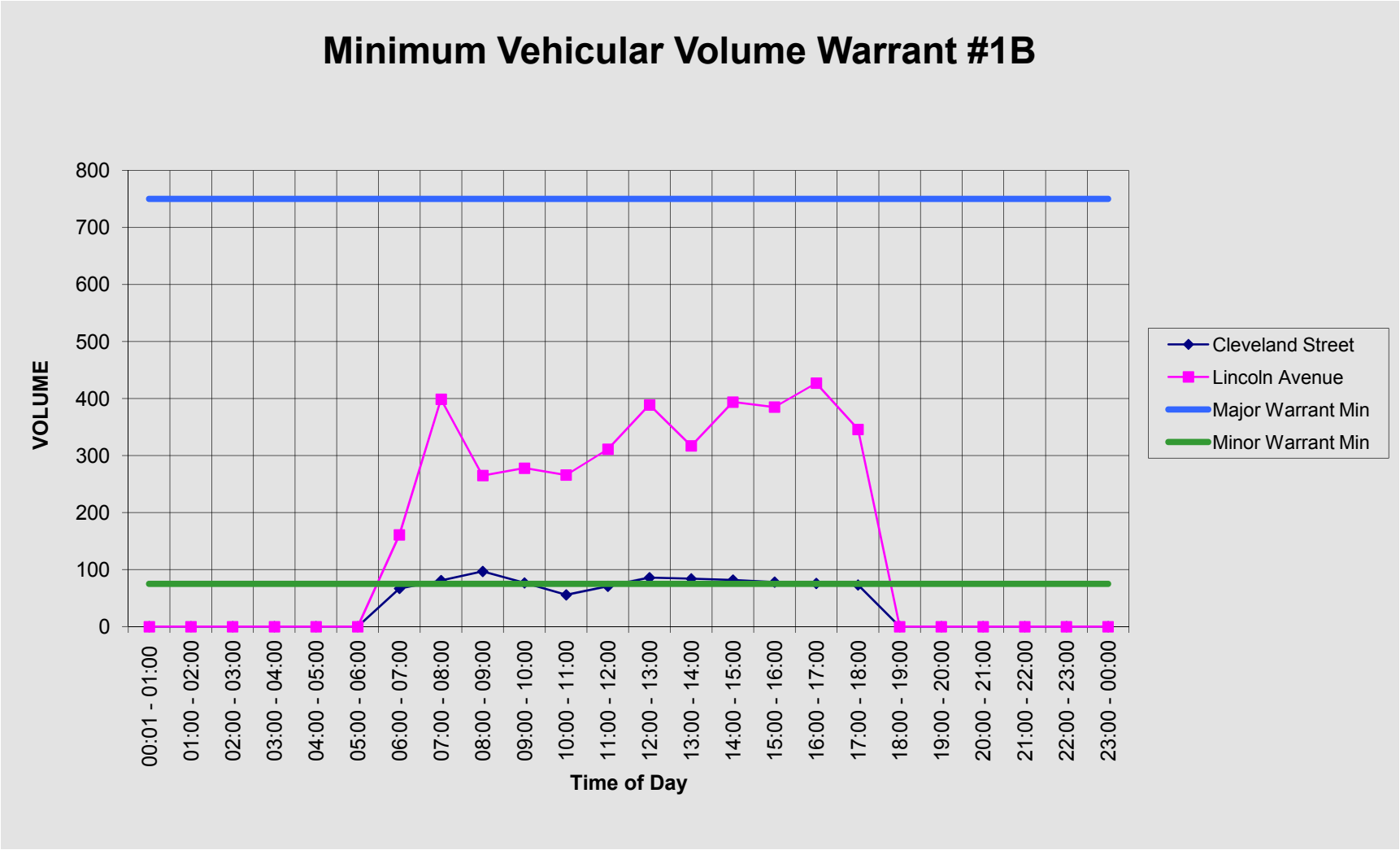
Major Street: Lincoln Avenue
Minor Street: Cleveland Street
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lincoln Avenue and Cleveland Street
Spot Number: 72 Lincoln Avenue and Cleveland Street

Major Street: Lincoln Avenue
Minor Street: Cleveland Street
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lincoln Avenue and Cleveland Street
City: Marquette

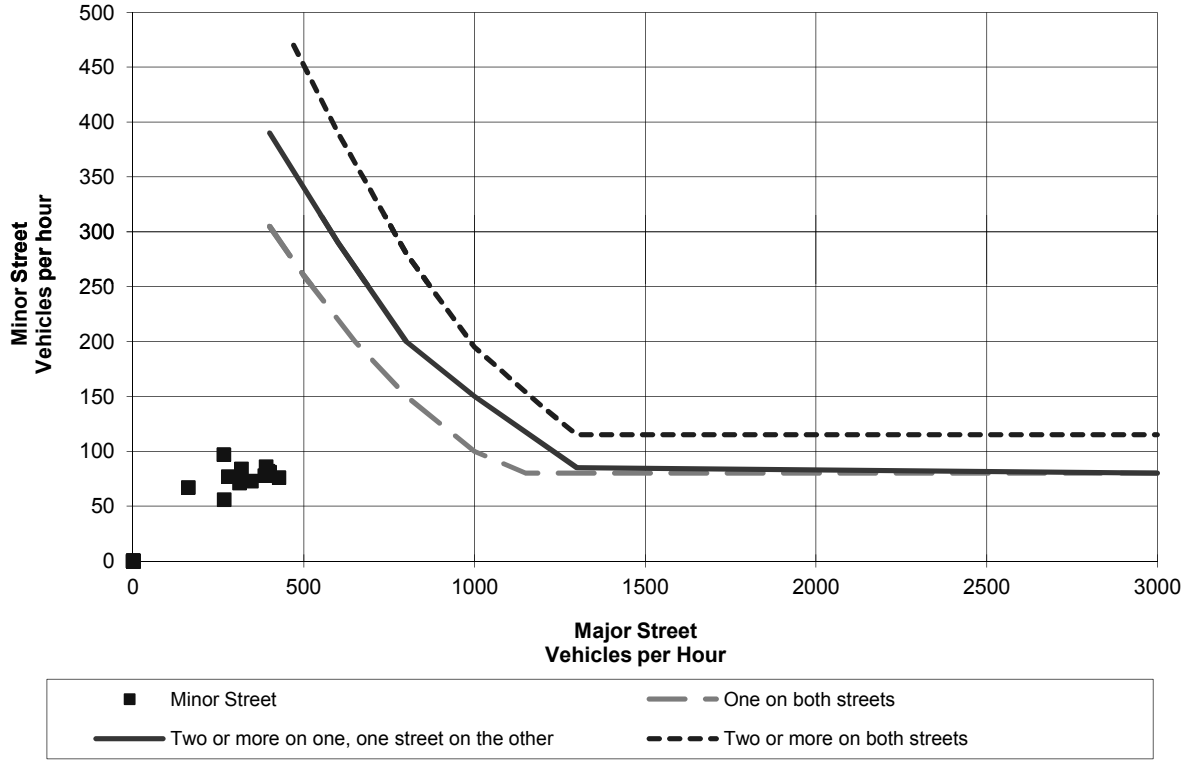
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lincoln Avenue and Cleveland Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0.4

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 97 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 08:00 - 09:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lincoln Avenue and Cleveland Street
City: Marquette

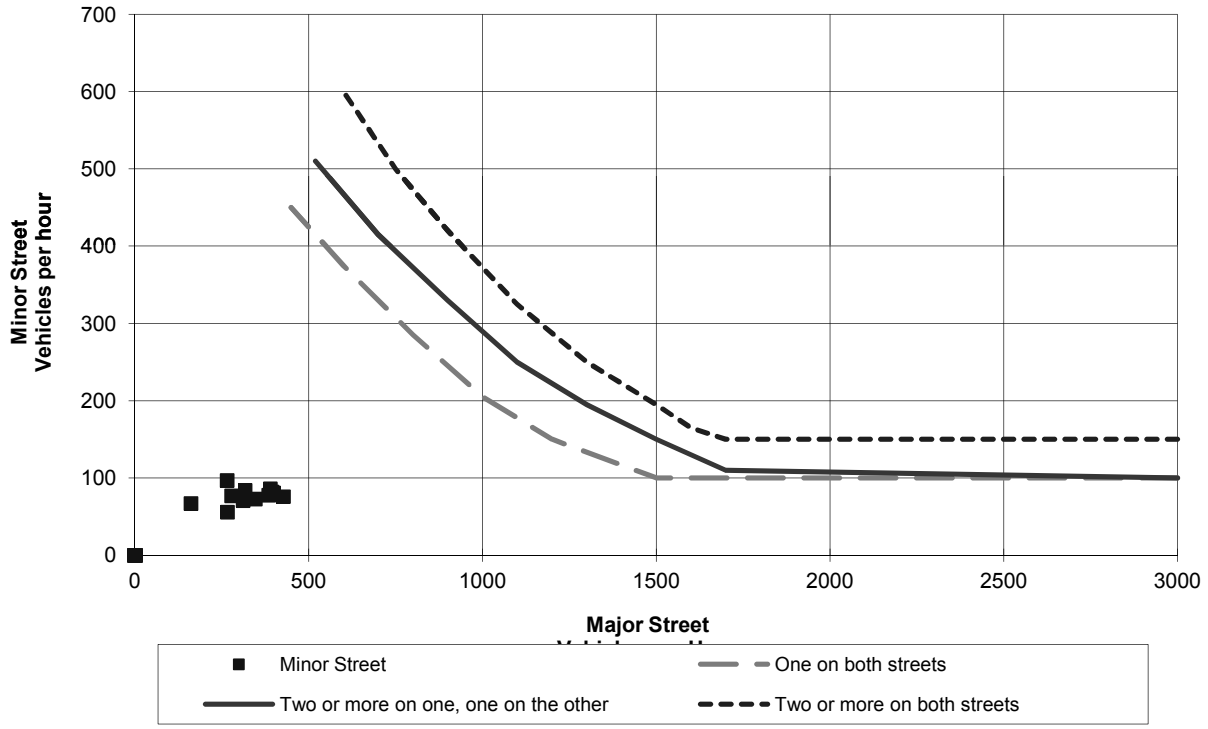
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Lincoln Avenue and Cleveland Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lincoln Avenue and Cleveland Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lincoln Avenue and Cleveland Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Lincoln Avenue and Cleveland Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lincoln Avenue and Cleveland Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 80 Front Street and Main Street

Major Street: Front Street Minor Street: Main Street

Intersection: Front Street and Main Street

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 12/4/2013

	Major SB	Major NB	Minor WB	Minor EB	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	68	163	8	7	231	8	246
07:00 - 08:00	172	289	11	16	461	16	488
08:00 - 09:00	159	254	16	17	413	17	446
09:00 - 10:00	183	281	19	29	464	29	512
10:00 - 11:00	216	236	14	38	452	38	504
11:00 - 12:00	240	258	21	41	498	41	560
12:00 - 13:00	267	269	32	36	536	36	604
13:00 - 14:00	261	220	18	46	481	46	545
14:00 - 15:00	259	231	23	48	490	48	561
15:00 - 16:00	227	207	23	57	434	57	514
16:00 - 17:00	354	289	27	53	643	53	723
17:00 - 18:00	313	323	17	43	636	43	696
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**2719**	**3020**	**229**	**431**	**5739**	**432**	**6399**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Main Street
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	231	8	No
07:00 - 08:00	461	16	No
08:00 - 09:00	413	17	No
09:00 - 10:00	464	29	No
10:00 - 11:00	452	38	No
11:00 - 12:00	498	41	No
12:00 - 13:00	536	36	No
13:00 - 14:00	481	46	No
14:00 - 15:00	490	48	No
15:00 - 16:00	434	57	No
16:00 - 17:00	643	53	No
17:00 - 18:00	636	43	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

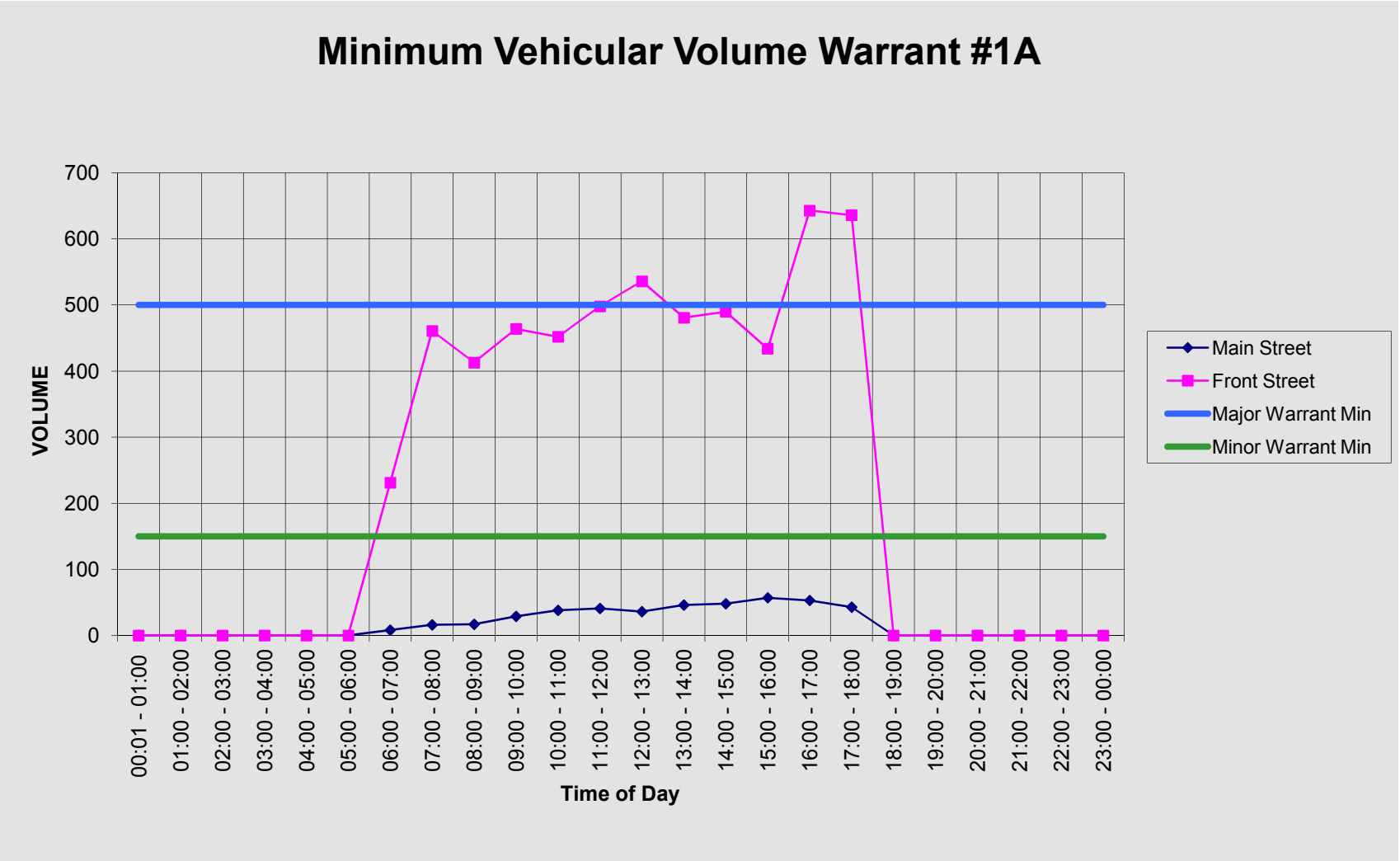
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Front Street and Main Street
Spot Number: 80 Front Street and Main Street

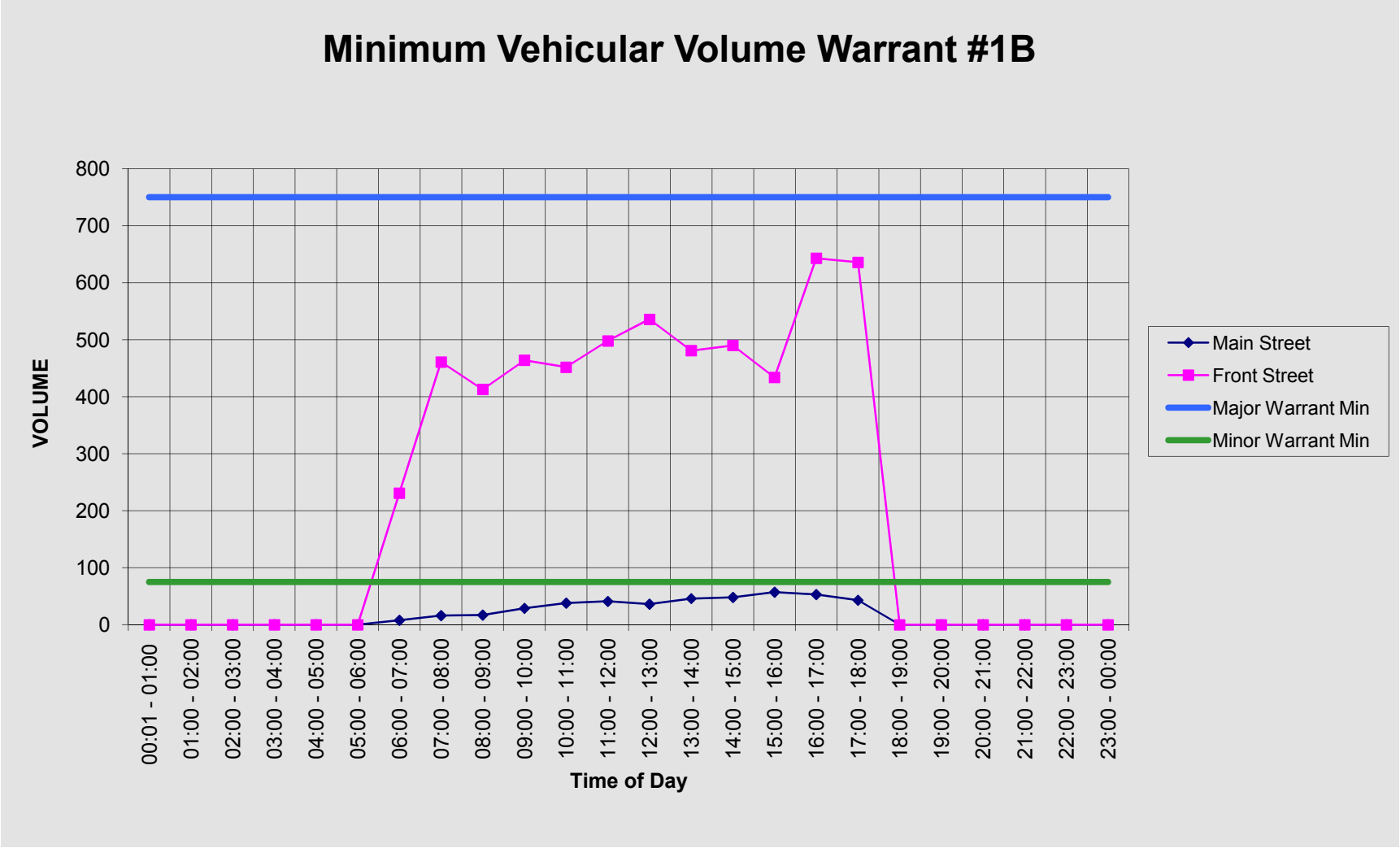
Major Street: Front Street
Minor Street: Main Street
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Front Street and Main Street
Spot Number: 80 Front Street and Main Street

Major Street: Front Street
Minor Street: Main Street
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Main Street
City: Marquette

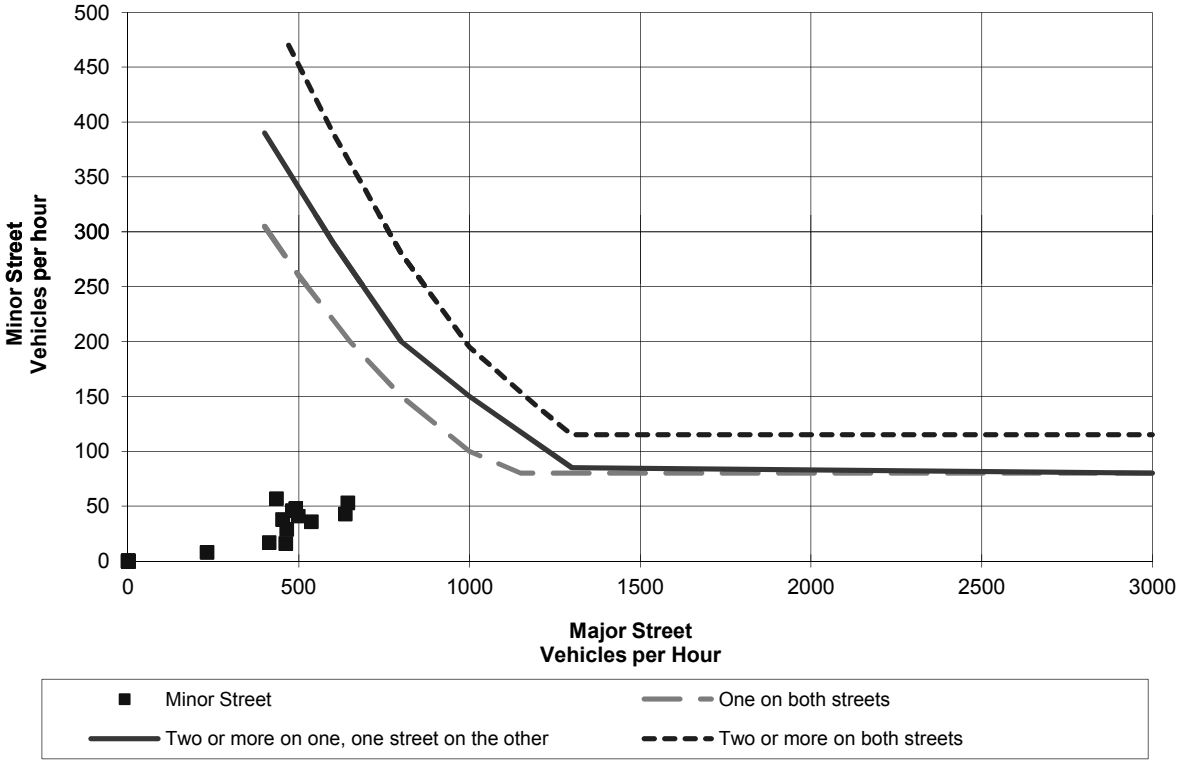
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Main Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 57 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 15:00 - 16:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Main Street
City: Marquette

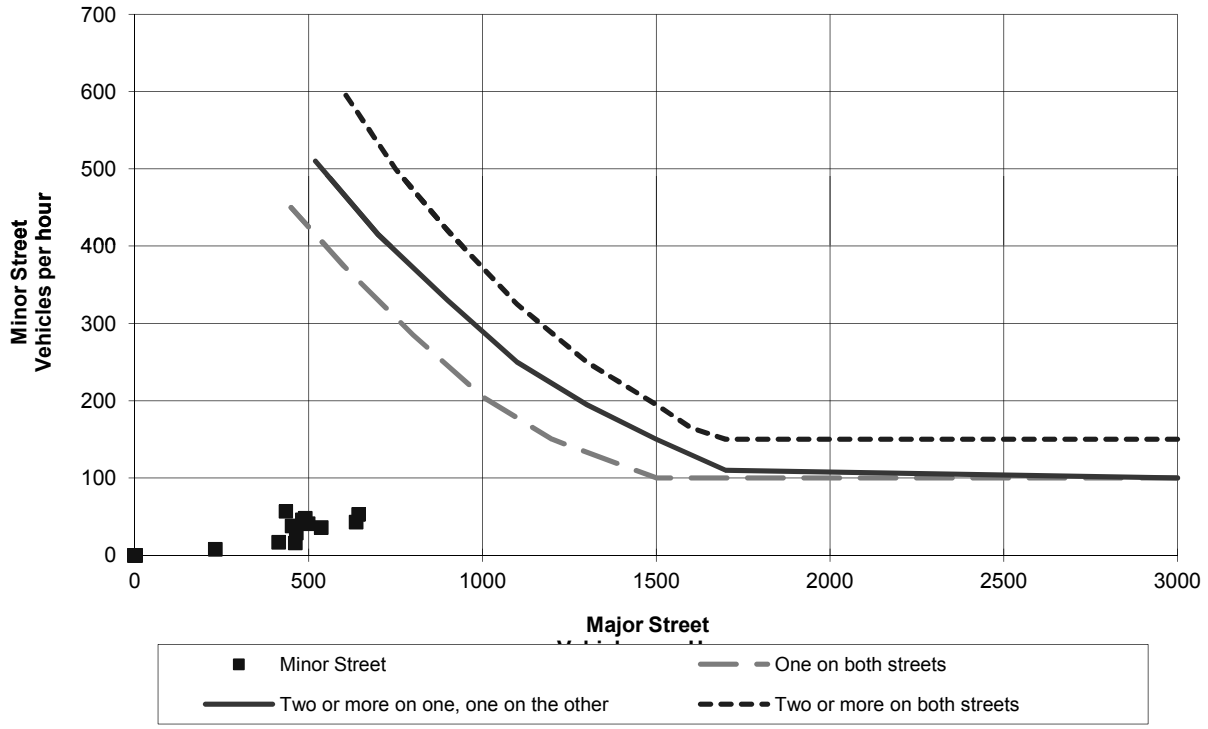
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Main Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Front Street and Main Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Main Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
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Intersection: Front Street and Main Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Front Street and Main Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: 81 Lakeshore Blvd and Washington Street

Major Street: Lakeshore Blvd Minor Street: Washington Street

Intersection: Lakeshore Blvd and Washington Street

City: Marquette

Date Performed: 2/12/2014 Performed By: KMM

Date Volumes Collected: 12/4/2013

	Major SB	Major NB	Minor EB	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	26	45	4	0	71	4	75
07:00 - 08:00	64	77	23	0	141	23	164
08:00 - 09:00	65	89	27	0	154	27	181
09:00 - 10:00	70	68	26	0	138	26	164
10:00 - 11:00	62	62	28	0	124	28	152
11:00 - 12:00	75	91	34	0	166	34	200
12:00 - 13:00	97	89	45	0	186	45	231
13:00 - 14:00	108	102	33	0	210	33	243
14:00 - 15:00	93	97	37	0	190	37	227
15:00 - 16:00	134	127	40	0	261	40	301
16:00 - 17:00	128	101	35	0	229	35	264
17:00 - 18:00	117	88	34	0	205	34	239
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**1039**	**1036**	**366**	**0**	**2075**	**366**	**2441**

Does the Posted Speed Limit exceed 40 mph on the major street? No

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette
Date 2/12/2014 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 1 Minor Street: 1

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	71	4	No
07:00 - 08:00	141	23	No
08:00 - 09:00	154	27	No
09:00 - 10:00	138	26	No
10:00 - 11:00	124	28	No
11:00 - 12:00	166	34	No
12:00 - 13:00	186	45	No
13:00 - 14:00	210	33	No
14:00 - 15:00	190	37	No
15:00 - 16:00	261	40	No
16:00 - 17:00	229	35	No
17:00 - 18:00	205	34	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

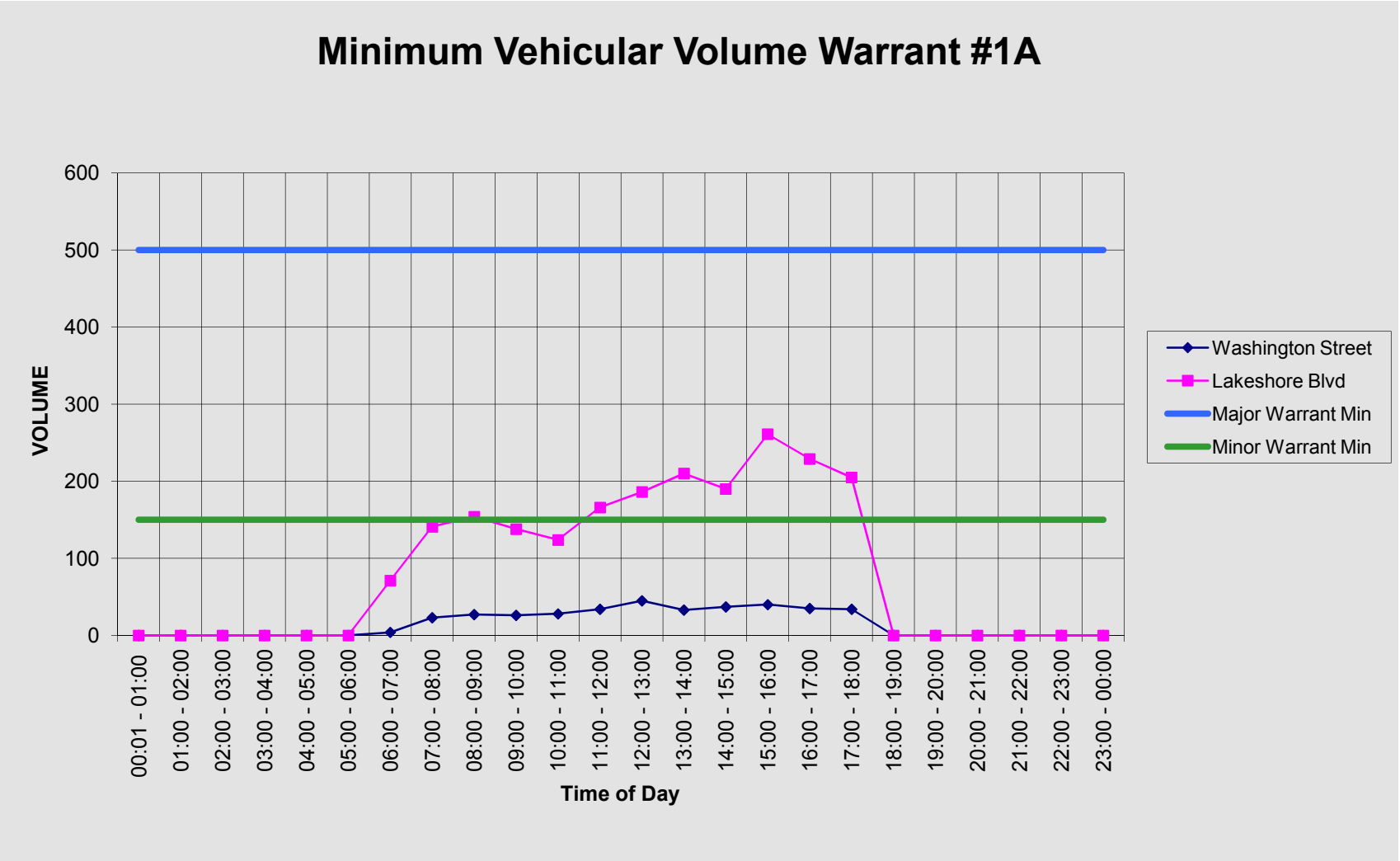
Total Hours Met: **0**

Is the intersection using the reduced volume criteria based on speed or population? No

A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant: MINIMUM VEHICULAR VOLUME - WARRANT #1A
Intersection: Lakeshore Blvd and Washington Street
Spot Number: 81 Lakeshore Blvd and Washington Street

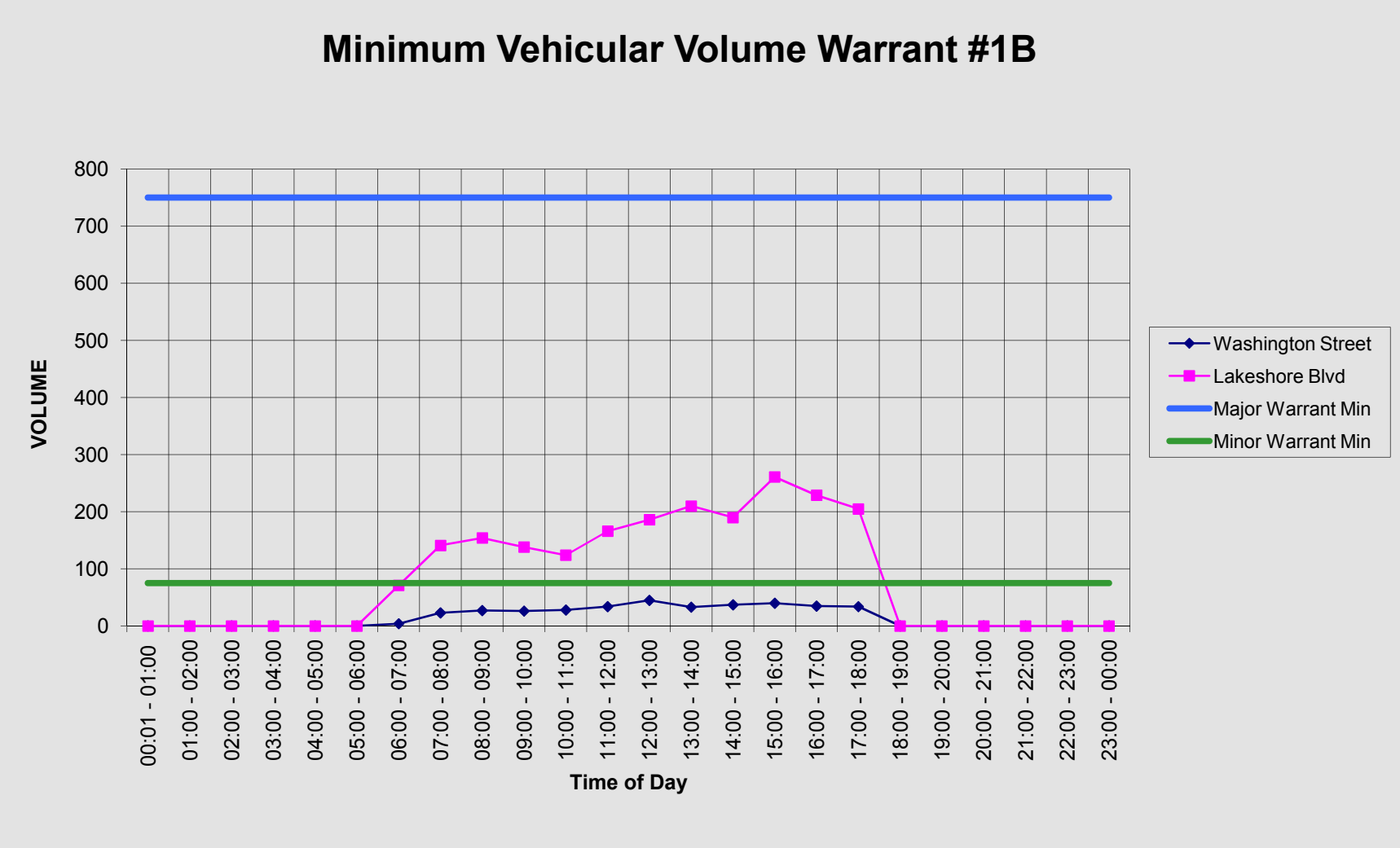
Major Street: Lakeshore Blvd
Minor Street: Washington Street
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Type of Warrant: INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B
Intersection: Lakeshore Blvd and Washington Street
Spot Number: 81 Lakeshore Blvd and Washington Street

Major Street: Lakeshore Blvd
Minor Street: Washington Street
Date of Survey: 12/04/13



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette

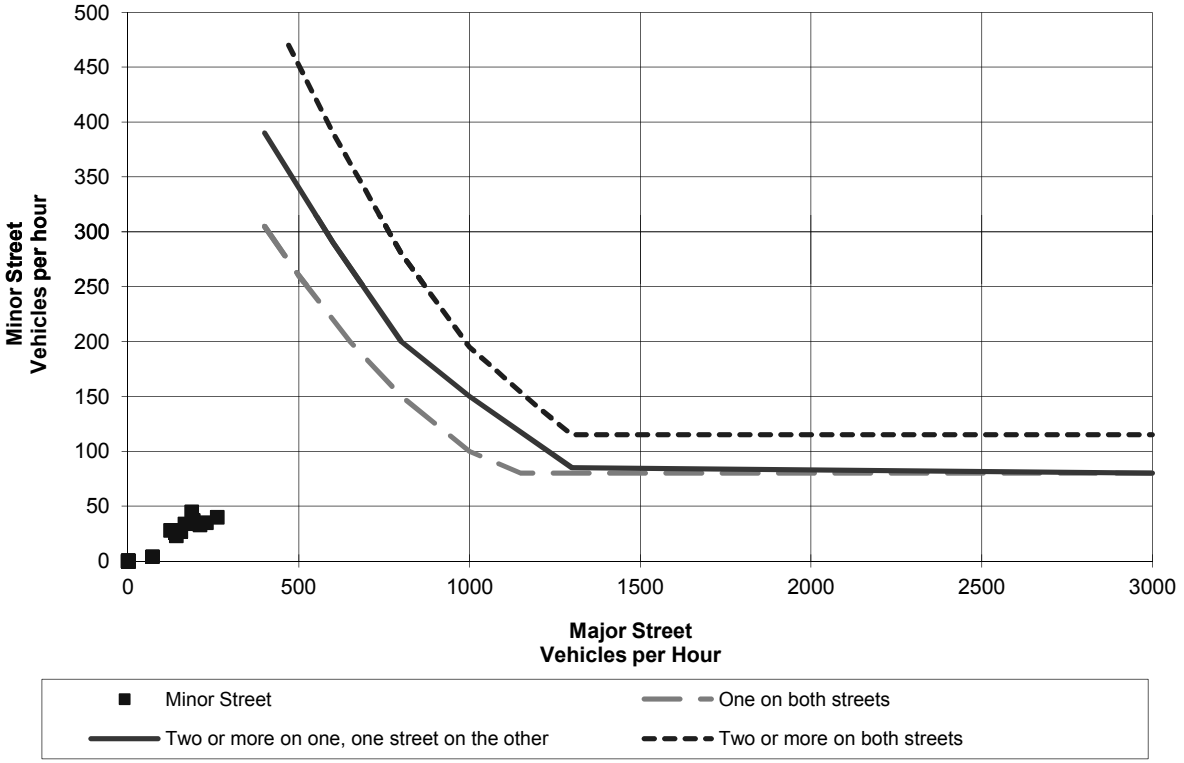
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **No**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes

How many lanes for the minor street approach the major street? 1

What is the delay of the minor street in vehicle hours? 0

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? No

Maximum vehicles per hour for minor street - 45 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? No

Hour of the day where maximum volume for side street 12:00 - 13:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette

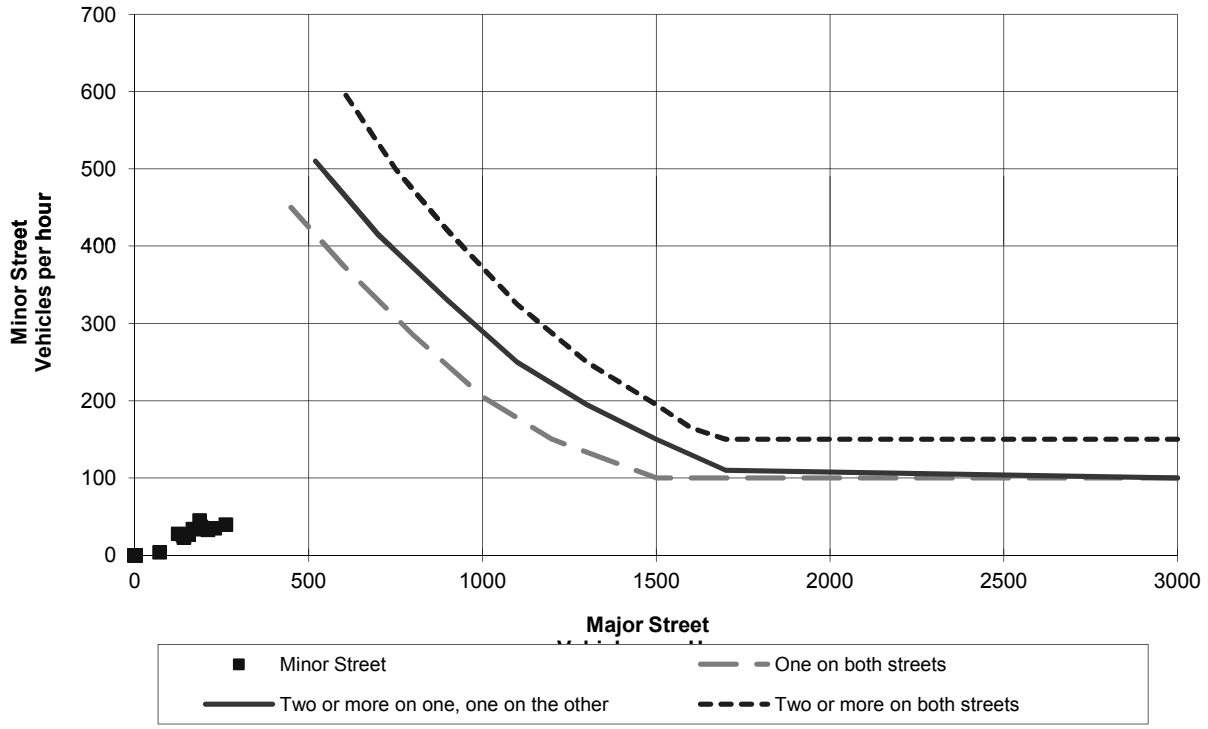
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 1 Minor Street: 1

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? No

Is there a signal within 300 feet of this intersection? No

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: Lakeshore Blvd and Washington Street
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? No

(If so, please attach the engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Spot Number: _____

Major Street: _____ Minor Street: _____

Intersection: _____

City: Marquette

Date Performed: _____ Performed By: KMM

Date Volumes Collected: _____

	Major 0	Major 0	Minor 0	Minor 0	Total Major	Highest Minor	Total
00:01 - 01:00	0	0	0	0	0	0	0
01:00 - 02:00	0	0	0	0	0	0	0
02:00 - 03:00	0	0	0	0	0	0	0
03:00 - 04:00	0	0	0	0	0	0	0
04:00 - 05:00	0	0	0	0	0	0	0
05:00 - 06:00	0	0	0	0	0	0	0
06:00 - 07:00	0	0	0	0	0	0	0
07:00 - 08:00	0	0	0	0	0	0	0
08:00 - 09:00	0	0	0	0	0	0	0
09:00 - 10:00	0	0	0	0	0	0	0
10:00 - 11:00	0	0	0	0	0	0	0
11:00 - 12:00	0	0	0	0	0	0	0
12:00 - 13:00	0	0	0	0	0	0	0
13:00 - 14:00	0	0	0	0	0	0	0
14:00 - 15:00	0	0	0	0	0	0	0
15:00 - 16:00	0	0	0	0	0	0	0
16:00 - 17:00	0	0	0	0	0	0	0
17:00 - 18:00	0	0	0	0	0	0	0
18:00 - 19:00	0	0	0	0	0	0	0
19:00 - 20:00	0	0	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0	0	0
21:00 - 22:00	0	0	0	0	0	0	0
22:00 - 23:00	0	0	0	0	0	0	0
23:00 - 00:00	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Does the Posted Speed Limit exceed 40 mph on the major street? Yes or No?

Does the intersection lie within a built-up area of an isolated community having a population of less than 10,000? No

Your intersection **CANNOT** use the 70% option to warrant the signal, do you want to use it? Yes or No?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette
Date 1/0/1900 Performed by: KMM

Warrant 1 - Eight-Hour Vehicular Volume

Number of lanes of moving traffic for moving traffic on each approach:
Major Street: 0 Minor Street: 0

Which percentage of the original volume do you wish to use? 100% (enter %)
(The percentage must be 100%, 80%, 70% or 56%)

Vehicles per hour on major street (total of both approaches):

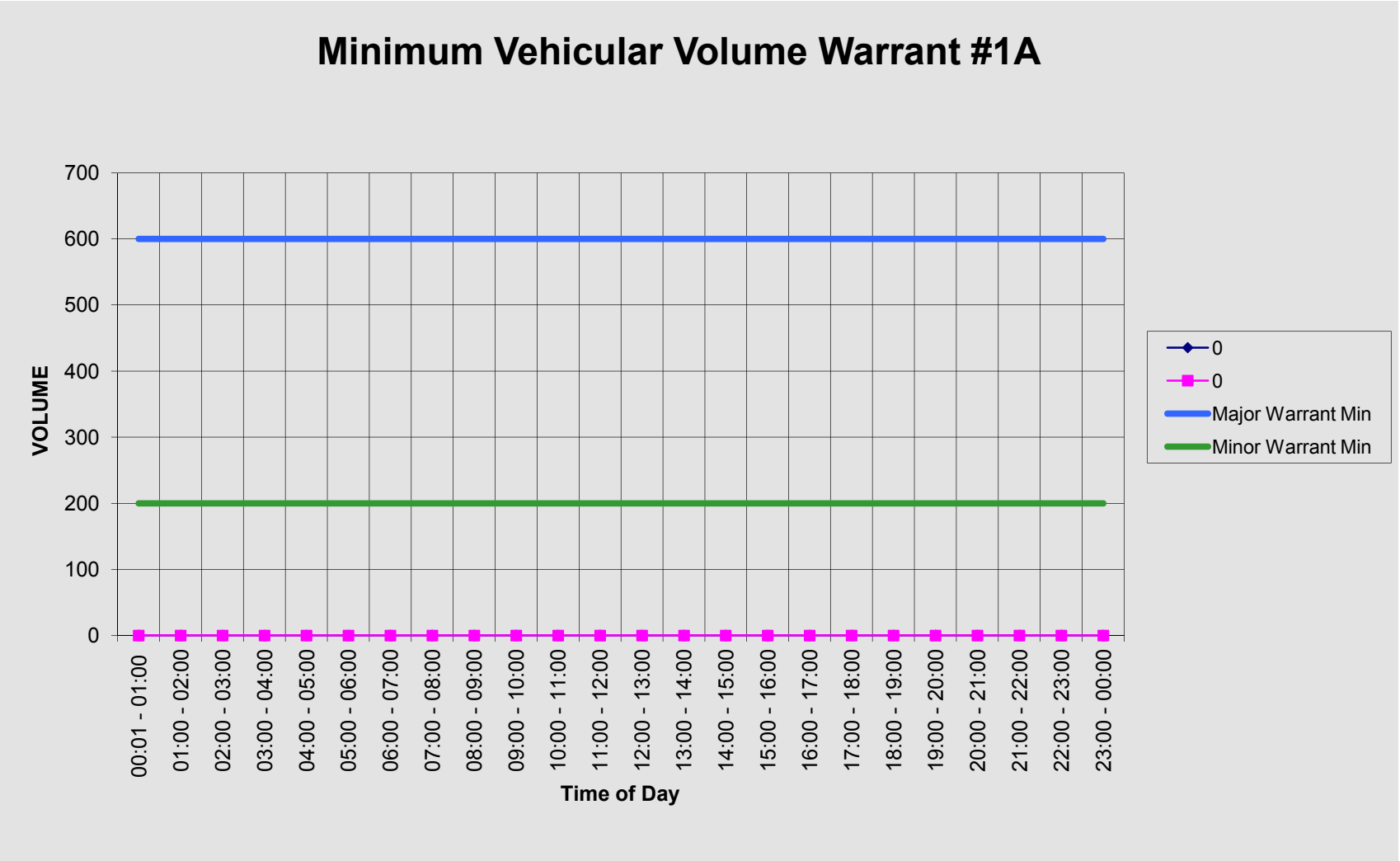
Time	Major Volume	Minor Volume	Meets Warrant
00:01 - 01:00	0	0	No
01:00 - 02:00	0	0	No
02:00 - 03:00	0	0	No
03:00 - 04:00	0	0	No
04:00 - 05:00	0	0	No
05:00 - 06:00	0	0	No
06:00 - 07:00	0	0	No
07:00 - 08:00	0	0	No
08:00 - 09:00	0	0	No
09:00 - 10:00	0	0	No
10:00 - 11:00	0	0	No
11:00 - 12:00	0	0	No
12:00 - 13:00	0	0	No
13:00 - 14:00	0	0	No
14:00 - 15:00	0	0	No
15:00 - 16:00	0	0	No
16:00 - 17:00	0	0	No
17:00 - 18:00	0	0	No
18:00 - 19:00	0	0	No
19:00 - 20:00	0	0	No
20:00 - 21:00	0	0	No
21:00 - 22:00	0	0	No
22:00 - 23:00	0	0	No
23:00 - 00:00	0	0	No

Total Hours Met: 0

Is the intersection using the reduced volume criteria based on speed or population? Yes or No?

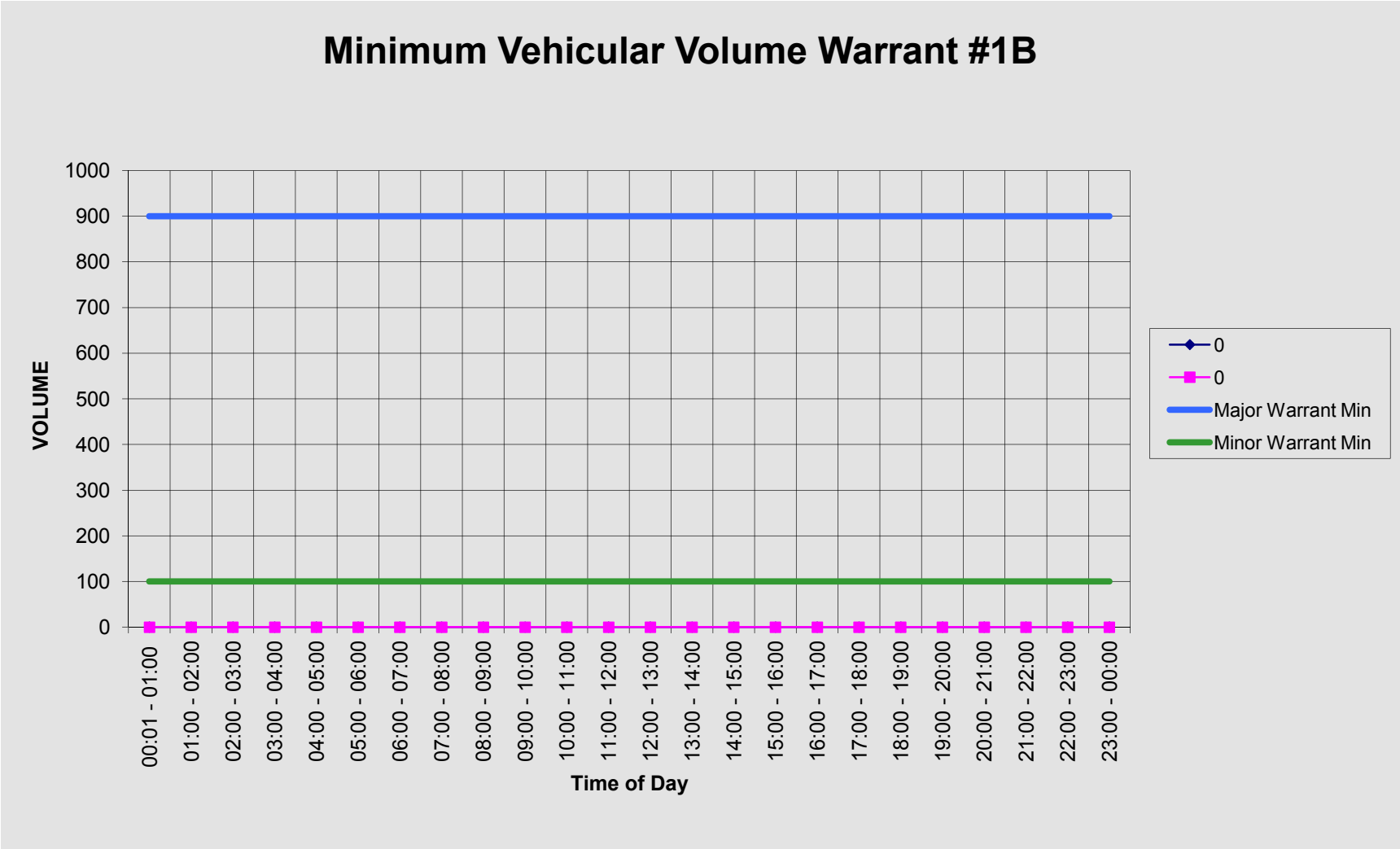
A. Is the Minimum Vehicular Volume Warrant Met? **No**
B. Is the Interruption of Continuous Traffic Met? **No**
Combination of Warrants A and B Criteria Met? **No**
(Use only when Conditions A and B are both not satisfied)

Type of Warrant:	MINIMUM VEHICULAR VOLUME - WARRANT #1A	**Major Street:**	0
Intersection:	0	**Minor Street:**	0
Spot Number:	0	**Date of Survey:**	01/00/00



NUMBER OF HOURS MET: 0

Type of Warrant:	INTERRUPTION OF CONTINUOUS TRAFFIC- WARRANT #1B	**Major Street:**	0
Intersection:	0	**Minor Street:**	0
Spot Number:	0	**Date of Survey:**	01/00/00



NUMBER OF HOURS MET: 0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

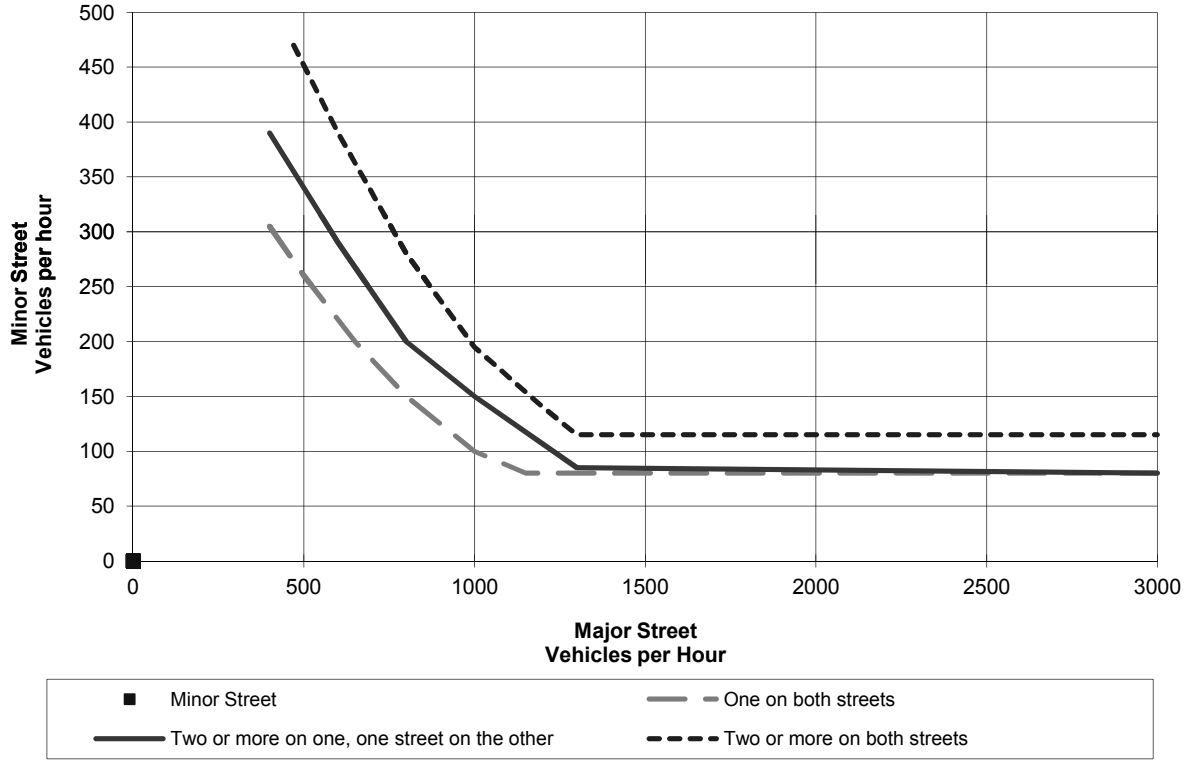
Warrant 2 - Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day plotted on a chart for the major street (both directions) and the higher volume of one direction of the minor street all fall above the curve in Figure 4C-1 of MMUTCD.

The charts below are for the major street and the minor street.

Figure 4C-2 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within the built-up area of an isolated community having a population less than 10,000.

Four Hour volume warrant - Major and Minor Streets for Urban Locations



Can the Four Hour Volume Warrant be used? **Yes**
Is Four Hour Volume Warrant met? **Yes, No, N/A**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 3A - Peak Hour

If this is an existing signal and the volume requirements are met warrant 3A should be omitted.

Is the minor street controlled by a STOP sign? Yes or No

How many lanes for the minor street approach the major street? 0

What is the delay of the minor street in vehicle hours? Enter Delay Here

Is the delay greater than four vehicle hours for one lane or five vehicle hours for two lane? Not a one or two lane section

Maximum vehicles per hour for minor street - 0 vph

Does the volume of the side street approach exceed 100 vph for one lane or 150 vph for two moving lanes? FALSE

Hour of the day where maximum volume for side street 00:01 - 01:00

Does the total entering volume for that hour equal or exceed 800 vph for a four legged intersection or 650 vph for a three legged intersection? Yes or No

Is Peak Hour Delay warrant met? No

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

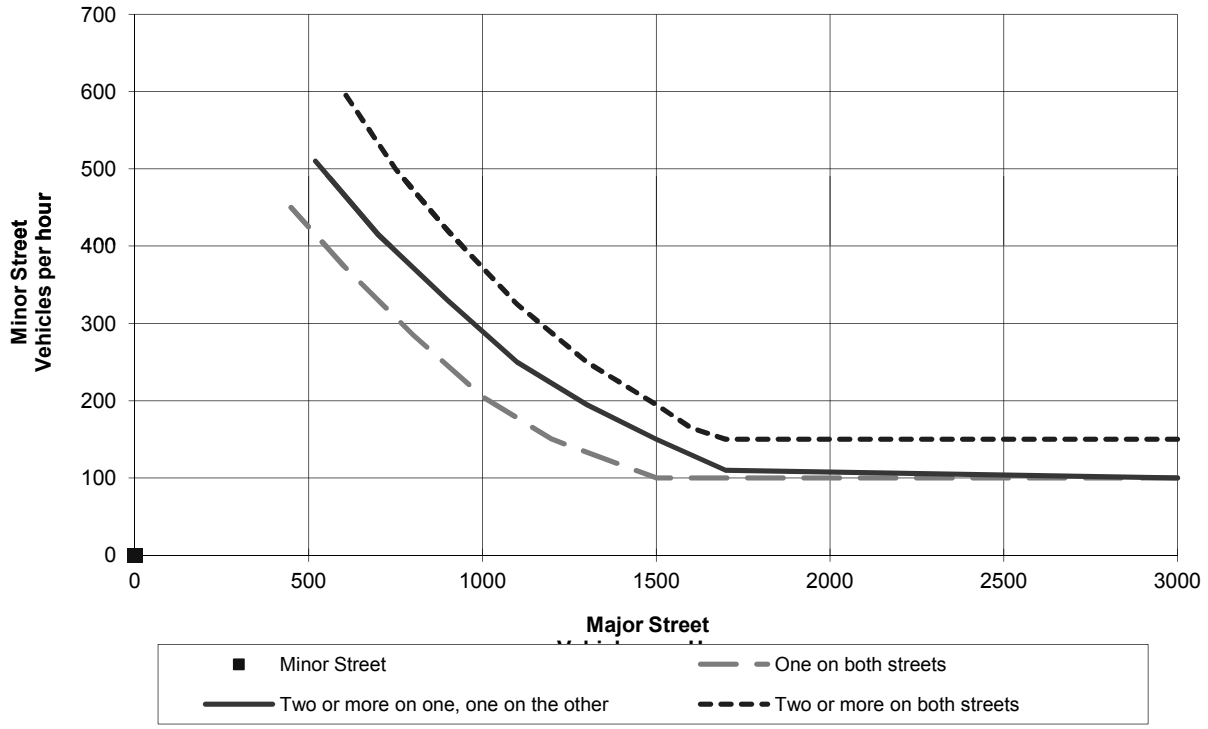
Warrant 3B - Peak Hour

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the main street.

The peak hour volume warrant is satisfied when the plotted point representing vehicles per hour on the higher volume minor street for one hour falls above the curve in Figure 4C-3.

Figure 4C-4 may be used if the 85th percentile speed of the major street exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000.

Peak Hour volume warrant - Major and Minor Streets for Urban Locations - Warrant 3B



Warrant 3 CANNOT be used because of Peak Hour Delay requirements.
(see Warrant 3A for more details).

Can the Peak Hour Volume Warrant be used? Yes
Is Peak Hour Volume Warrant Met? Yes, No, N/A

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 4 - Minimum Pedestrian Volume

A traffic signal may be arranged where pedestrian volume crossing the major street at an intersection or mid-block location during an average day is: 100 or more for each of any four hours; or 190 or more during any one hour.

Number of lanes of moving traffic for moving traffic on each approach:

Major Street: 0 Minor Street: 0

Number of pedestrians per hour crossing major street:

00:01 - 01:00	12:00 - 13:00
01:00 - 02:00	13:00 - 14:00
02:00 - 03:00	14:00 - 15:00
03:00 - 04:00	15:00 - 16:00
04:00 - 05:00	16:00 - 17:00
05:00 - 06:00	17:00 - 18:00
06:00 - 07:00	18:00 - 19:00
07:00 - 08:00	19:00 - 20:00
08:00 - 09:00	20:00 - 21:00
09:00 - 10:00	21:00 - 22:00
10:00 - 11:00	22:00 - 23:00
11:00 - 12:00	23:00 - 00:00

Is the pedestrian volume crossing during an average day greater than 100 pedestrians for each of any 4 hours or greater than 190 pedestrians during 1 hour? Yes or No?

Is there a signal within 300 feet of this intersection? Yes or No?

Does Minimum Pedestrian Volume meet warrants*? **No** **

*If the average crossing speed is less than 4 ft/sec than the criterion can be reudced by as much as 50% to meet the warrant. Before reducing criteria approval from the project manager should be received.

**If the above warrant is met please contact the project manager to determine if a gap analysis should be performed. If there are fewer than 60 gaps per hour of adequate length for pedestrians to cross during the same time period when the pedestrian volume criterion are satisfied?

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 5 - School Crossing

A traffic control signal may be warranted at an established school crossing if the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period. A safe gap is defined as follows:

Number of Gaps counted in study period: _____
Duration of Study: _____ minutes

Width of Street: _____ feet
Number of Children per group: _____
Safe Gap: **2.6** seconds

A minimum of 20 children per hour should be utilizing the crossing before applying this warrant.

Is School Crossing Warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 6 - Coordinated Signal System

The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning, or

2. On a two-way street, adjacent signals do not provide the necessary degree of a platooning and the proposed or adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing is less than 1,000 feet.

Is Progressive Movement warrant met? **No**
(If so, please attach engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 7 - Crash Experience

The Crash Experience warrant is satisfied when:

Has an adequate trial of less restrictive remedies with satisfactory observance and enforcement failed to reduce the crash frequency? Yes or No

Have five or more crashes, of types susceptible to correction by traffic control signal, occurred within a 12-month period, each involving personal injury or property damage? Yes or No

For each of any 8 hours of an average day, do the vehicles per hour given in both of the 80 percent columns of Condition A and B in Table 4C-1 exist on the major-street and the higher volume minor street approach, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant Yes or No

Is the Crash Experience warrant met? No
(If so, please attach an Crash Analysis Engineering study)

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
Prepared by Parsons Brinckerhoff for the 2005 Edition of the MMUTCD

Intersection: 0
City: Marquette

Warrant 8 - Roadway Network Warrant

The need for a traffic signal control study is applicable when the common intersection of two or more major routes meets one or both of the following criteria :

(1) has a total existing, or immediately projected, entering volume of at least 1,000 vehicles during the peak hour and has five-year projected volumes, based on an engineering study, which meet one or more of Warrants 1, 2, and 3 during an average weekday; or

(2) has a total existing or immediately projected entering volume of at least 1,000 vehicles for each of any five hours of a nonnormal business day (Saturday and/or Sunday).

Is Systems Warrant met? **No**

(If so, please attach the engineering study)

CRASH DATA SUMMARY TABLE

Crash Data Summary Table

DLZ #	Intersection	Existing Traffic Control	Total Crashes							Right Angle Crashes							Right Turn/Left Turn Crashes							Bicycle Crashes							Pedestrian Crashes						
			Total	07	08	09	10	11	12	Total	07	08	09	10	11	12	Total	07	08	09	10	11	12	Total	07	08	09	10	11	12	Total	07	08	09	10	11	12
1	Lakeshore Boulevard and Peter White Drive	Yield	**4**	0	1	0	2	1	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
2	Lakeshore Boulevard and Hawley Street	1-way Stop	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
3	Presque Isle Avenue and Hawley Street	2-way Stop	**4**	0	2	0	2	0	0	**1**	0	0	0	1	0	0	**0**	0	0	0	0	0	0	**1**		1											
4	Sugarloaf Avenue and Hawley Street	1-way Stop	**3**	0	1	1	1	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
5	Sugarloaf Avenue and Wright Street	Signal	**31**	4	6	8	4	2	3	**0**							**0**														**3**	1	1	1			
6	McClellan Avenue and Wright Street	Signal	**No Data**																																		
7	McClellan Avenue and Fair Avenue	Signal	**19**	3	3	3	4	2	4	**7**	0	2	3	1	0	1	**0**																				
8	McClellan Avenue and Cleveland Street	All-way Stop	**4**	0	2	0	2	0	0	**3**	0	2	0	1	0	0	**0**	0	0	0	0	0	0														
9	Seventh Street and College Avenue	Signal	**31**	6	4	5	5	4	7	**0**							**0**							**2**	2												
10	Presque Isle Avenue and Center Street	1-way Stop	**12**	3	2	1	3	1	2	**4**	1	0	0	1	0	2	**1**	1	0	0	0	0	0														
11	Presque Isle Avenue and Wright Street	Signal	**35**	7	4	4	2	10	8	**0**							**0**														**2**					1	1
12	Lakeshore Boulevard and Wright Street	1-way Stop	**1**	0	0	0	0	0	1	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
13	Pine Street and Lakeshore Boulevard	1-way Stop	**1**	0	0	0	0	1	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
14	Pine Street and Fair Avenue	All-way Stop	**5**	1	0	1	2	1	0	**3**	1	0	0	1	1	0	**1**	0	0	0	1	0	0														
15	Lakeshore Boulevard and Fair Avenue	1-way Stop	**3**	1	0	0	0	0	2	**1**	1	0	0	0	0	0	**0**	0	0	0	0	0	0														
16	Presque Isle Avenue and Fair Avenue	1-way Stop	**10**	0	3	3	2	2	0	**3**	0	1	1	1	0	0	**1**	0	1	0	0	0	0	**1**			1										
17	Third Street and Fair Avenue	2-way Stop	**11**	5	1	1	0	1	3	**9**	4	0	1	0	1	3	**0**	0	0	0	0	0	0														
18	Front Street and Fair Avenue	1-way Stop	**5**	1	0	3	0	1	0	**0**	0	0	0	0	0	0	**2**	0	1	1	0	0	0														
19	Presque Isle Avenue and Kaye Avenue	Signal	**9**	3	1	3	1	1	0	**0**							**0**																				
20	Fourth Street and College Avenue	Signal	**23**	7	0	4	3	7	2	**0**							**0**																				
21	Third Street and College Avenue	2-way Stop	**11**	2	3	1	1	1	3	**5**	0	2	1	0	1	1	**1**	0	0	1	0	0	0	**1**		1											
22	Pine Street and Magnetic Street	2-way Stop	**5**	0	1	2	1	0	1	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
23	Front Street and Magnetic Street	2-way Stop	**2**	1	0	1	0	0	0	**1**	0	0	1	0	0	0	**0**	0	0	0	0	0	0														
24	Third Street and Magnetic Street	2-way Stop	**20**	6	2	3	2	2	5	**8**	2	0	2	2	2	0	**1**	1	0	0	0	0	0	**2**			1			1	**1**	1					
25	Fourth Street and Magnetic Street	2-way Stop	**16**	3	2	4	6	1	0	**6**	1	0	0	4	1	0	**1**	0	1	0	0	0	0								**1**				1		
26	Lakeshore Boulevard and Crescent Street	1-way Stop	**2**	0	0	0	1	1	0	**1**	0	0	0	0	1	0	**0**	0	0	0	0	0	0														
27	Lakeshore Boulevard and Hewitt Avenue	1-way Stop	**1**	0	1	0	0	0	0	**1**	0	1	0	0	0	0	**0**	0	0	0	0	0	0														
28	Spruce Street and Hewitt Avenue	2-way Stop	**1**	1	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
29	Pine Street and Hewitt Avenue	All-way Stop	**2**	0	1	0	1	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
30	Front Street and Hewitt Avenue	Signal	**13**	1	4	1	2	3	2	**0**							**0**																				
31	Third Street and Hewitt Avenue	Signal	**37**	12	8	4	2	3	8	**0**							**0**														**1**	1					
32	Fourth Street and Hewitt Avenue	2-way Stop	**18**	4	3	2	5	2	2	**6**	3	0	0	1	1	1	**1**	0	1	0	0	0	0														
33	Front Street and Arch Street	All-way Stop	**10**	2	3	1	2	1	1	**5**	2	1	0	1	1	0	**0**	0	0	0	0	0	0	**1**				1									
34	Pine Street and Ridge Street	1-way Stop	**1**	0	0	0	0	0	1	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
35	Lakeshore Boulevard and Spring Street	1-way Stop	**1**	0	0	1	0	0	0	**1**	0	0	1	0	0	0	**0**	0	0	0	0	0	0														
36	Lakeshore Boulevard and Baraga Avenue	2-way Stop	**7**	1	1	0	1	3	1	**3**	0	1	0	0	2	0	**0**	0	0	0	0	0	0														
37	Front Street and Baraga Avenue	2-way Stop	**59**	11	5	15	6	14	8	**19**	2	1	6	1	7	2	**2**	1	0	0	0	1	0								**2**	2					
38	Front Street and Spring Street	Signal	**21**	3	4	6	4	3	1	**7**	0	1	1	2	2	1	**0**														**1**				1		
39	Third Street and Baraga Avenue	All-way Stop	**30**	4	5	5	7	9	0	**16**	2	2	3	2	7	0	**0**	0	0	0	0	0	0														
40	Fourth Street and Baraga Avenue	2-way Stop	**32**	7	7	4	8	3	3	**16**	4	3	3	4	1	1	**3**	0	0	1	1	1	0														
41	Seventh Street and Spring Street	2-way Stop	**2**	0	0	0	0	0	2	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
42	Seventh Street and Baraga Avenue	2-way Stop	**9**	0	0	2	2	3	2	**3**	0	0	1	1	1	0	**0**	0	0	0	0	0	0	**1**						1							
43	Front Street and Fisher Street	1-way Stop	**13**	4	5	4	0	0	0	**4**	0	3	1	0	0	0	**0**	0	0	0	0	0	0														
44	Third Street and Fisher Street	3-way Stop	**13**	1	2	3	1	3	3	**2**	0	0	0	1	0	1	**1**	0	1	0	0	0	0														
45	Fourth Street and Fisher Street	3-way Stop	**14**	3	2	2	4	2	1	**3**	1	0	1	0	0	1	**0**	0	0	0	0	0	0	**1**		1											
46	Fifth Street and Fisher Street	1-way Stop	**6**	0	2	1	2	0	1	**4**	0	1	0	2	0	1	**0**	0	0	0	0	0	0														
47	Altamont Street and Fisher Street	2-way Stop	**8**	2	1	3	1	0	1	**4**	2	0	1	1	0	0	**0**	0	0	0	0	0	0														
48	Seventh Street and Fisher Street	2-way Stop	**12**	4	0	1	1	2	4	**5**	2	0	0	0	0	3	**0**	0	0	0	0	0	0														
49	U.S. 41 and Grove Street	Signal	**16**	1	3	0	3	3	2	**0**							**0**																				
50	U.S. 41 and Genesee Street	Signal	**72**	14	11	10	16	9	12	**30**	0	5	4	10	3	8	**0**																				
51	Division Street and Genesee Street	2-way Stop	**13**	2	3	3	1	2	2	**7**	2	0	2	1	1	1	**0**	0	0	0	0	0	0														
52	Altamont Street Genesee Street	2-way Stop	**2**	1	0	0	0	0	1	**1**	0	0	0	0	0	1	**0**	0	0	0	0	0	0														
53	Altamont Street and Hampton Street	2-way Stop	**1**	0	0	0	0	1	0	**1**	0	0	0	0	1	0	**0**	0	0	0	0	0	0														
54	Division Street and Hampton Street	2-way Stop	**15**	2	3	4	2	2	2	**8**	2	1	2	1	1	1	**0**	0	0	0	0	0	0														
55	U.S. 41 and Hampton Street	2-way Stop	**27**	3	4	7	7	5	1	**9**	0	1	3	5	0	0	**3**	0	0	0	0	3	0														
56	Division Street and Joliet Road	1-way Stop	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
57	Division Street and Pioneer Road	1-way Stop	**15**	4	2	5	1	2	1	**3**	1	0	2	0	0	0	**0**	0	0	0	0	0	0														
58	Altamont Street and Pioneer Road	1-way Stop	**2**	1	0	0	0	1	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
59	Division Street and McClellan Avenue	1-way Stop	**8**	1	1	2	2	2	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
60	Third Street & Spring Street	2-way Stop	**11**	2	1	0	3	3	2	**2**	2	0	0	0	0	0	**0**	0	0	0	0	0	0	**1**					1								

Crash Data Summary Table

DLZ #	Intersection	Existing Traffic Control	Total Crashes							Right Angle Crashes							Right Turn/Left Turn Crashes							Bicycle Crashes							Pedestrian Crashes						
			Total	07	08	09	10	11	12	Total	07	08	09	10	11	12	Total	07	08	09	10	11	12	Total	07	08	09	10	11	12	Total	07	08	09	10	11	12
61	U.S. 41 and Washington Street	Signal	**121**	21	17	24	22	18	19	**0**							**0**																				
62	McClellan Avenue and Ridge Street	2-way Stop	**24**	7	4	4	3	2	4	**19**	3	3	4	3	2	4	**2**	2	0	0	0	0	0														
63	McClellan Avenue and Washington Street	Signal	**117**	11	20	24	26	16	20	**0**							**0**							**1**						1							
64	McClellan Avenue and Baraga Avenue	2-way Stop	**27**	7	4	2	7	1	6	**12**	4	1	2	3	0	2	**3**	2	0	0	1	0	0								**1**				1		
65	U.S. 41 and McClellan Avenue	Signal	**61**	15	7	7	12	10	10	**0**							**0**																				
66	O'Dovero Drive and McClellan Avenue	1-way Stop	**27**	3	5	4	4	7	4	**17**	1	5	1	1	6	3	**1**	1	0	0	0	0	0														
67	Grove Street and McClellan Avenue	All-way Stop	**16**	3	3	3	2	0	5	**6**	2	1	0	1	0	2	**0**	0	0	0	0	0	0														
68	Pioneer Road and McClellan Avenue	2-way Stop	**18**	3	1	2	6	2	4	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0														
69	Lincoln Avenue and Wright Street	1-way Stop	**17**	4	4	3	2	3	1	**4**	1	0	1	1	1	0	**2**	0	0	0	1	1	0														
70	Lincoln Avenue and Fair Avenue	Signal	**26**	2	7	8	4	1	4	**0**							**0**																				
71	Lincoln Avenue and College Avenue	Signal	**25**	1	4	8	2	4	6	**0**							**0**							**2**				1	1								
72	Lincoln Avenue and Cleveland Street	1-way Stop	**9**	1	1	2	4	1	0	**4**	1	0	2	1	0	0	**1**	0	1	0	0	0	0														
73	Lincoln Avenue and Washington Street	Signal	**57**	12	10	12	10	7	6	**0**							**0**							**1**				1									
74	Seventh Street and Magnetic Street	Signal	**25**	1	0	7	3	7	6	**0**							**0**							**3**			1		2		**1**						1
75	Seventh Street and Washington Street	Signal	**39**	5	6	5	5	6	12	**0**							**0**							**1**													
76	Fifth Street and Washington Street	Signal	**45**	10	11	7	8	4	5	**0**							**0**							**1**			1										
77	Fourth Street and Washington Street	Signal	**52**	9	6	12	10	7	8	**0**							**0**							**2**			1	1									
78	Third Street and Washington Street	Signal	**66**	9	6	18	7	16	10	**0**							**0**														**4**	1	1			1	1
79	Front Street and Washington Street	Signal	**66**	15	17	9	11	9	5	**0**							**0**																				
80	Front Street and Main Street	2-way Stop	**31**	3	3	6	5	8	6	**6**	1	0	2	1	0	2	**3**	0	0	1	1	1	0	**1**				1			**1**						1
81	Lakeshore Boulevard and Washington Street	1-way Stop	**13**	3	3	4	1	1	1	**3**	1	1	1	0	0	0	**1**	0	0	0	0	0	1	**1**		1											

APPENDIX G

SIGNALIZED/UNSIGNALIZED INTERSECTION CAPACITY ANALYSES MITIGATION MEASURES – 2013

AM PEAK HOUR
MID-DAY PEAK HOUR
PM PEAK HOUR

AM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	389	56	86	179	0	14	1	81	0	0	2
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	180.4	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	52	826	119	422	907	0	534	5	482	0	0	438
Arrive On Green	0.54	0.54	0.54	1.00	1.00	0.00	0.31	0.31	0.31	0.00	0.00	0.31
Sat Flow, veh/h	1	1542	221	889	1693	0	1409	18	1568	0	0	1425
Grp Volume(v), veh/h	486	0	0	93	195	0	15	0	89	0	0	2
Grp Sat Flow(s),veh/h/ln	1764	0	0	889	1693	0	1409	0	1586	0	0	1425
Q Serve(g_s), s	0.0	0.0	0.0	3.0	0.0	0.0	0.5	0.0	2.9	0.0	0.0	0.1
Cycle Q Clear(g_c), s	12.3	0.0	0.0	15.3	0.0	0.0	0.6	0.0	2.9	0.0	0.0	0.1
Prop In Lane	0.00		0.13	1.00		0.00	1.00		0.99	0.00		1.00
Lane Grp Cap(c), veh/h	997	0	0	422	907	0	534	0	487	0	0	438
V/C Ratio(X)	0.49	0.00	0.00	0.22	0.22	0.00	0.03	0.00	0.18	0.00	0.00	0.00
Avail Cap(c_a), veh/h	997	0	0	422	907	0	534	0	487	0	0	438
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.99	0.99	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.4	0.0	0.0	2.5	0.0	0.0	17.0	0.0	17.8	0.0	0.0	16.8
Incr Delay (d2), s/veh	1.7	0.0	0.0	1.2	0.5	0.0	0.1	0.0	0.8	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.9	0.0	0.0	0.3	0.1	0.0	0.2	0.0	1.1	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	12.1	0.0	0.0	3.7	0.5	0.0	17.1	0.0	18.6	0.0	0.0	16.8
Lane Grp LOS	B			A	A		B		B			B
Approach Vol, veh/h		486			288			104			2	
Approach Delay, s/veh		12.1			1.6			18.4			16.8	
Approach LOS		B			A			B			B	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	43.0	43.0	27.0	27.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	37.5	37.5	21.5	21.5
Max Q Clear Time (g_c+I1), s	14.3	17.3	4.9	2.1
Green Ext Time (p_c), s	3.1	3.1	0.4	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.4
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	151	63	45	46	6	19	215	235	15	90	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	444	245	102	249	319	45	765	249	271	169	821	25
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1283	834	346	1142	1087	152	1295	464	505	904	1528	47
Grp Volume(v), veh/h	33	0	232	49	0	57	21	0	489	16	0	101
Grp Sat Flow(s),veh/h/ln	1283	0	1179	1142	0	1239	1295	0	969	904	0	1575
Q Serve(g_s), s	1.3	0.0	11.2	2.6	0.0	2.2	0.5	0.0	30.7	1.1	0.0	2.1
Cycle Q Clear(g_c), s	3.5	0.0	11.2	13.8	0.0	2.2	2.6	0.0	30.7	31.8	0.0	2.1
Prop In Lane	1.00		0.29	1.00		0.12	1.00		0.52	1.00		0.03
Lane Grp Cap(c), veh/h	444	0	347	249	0	364	765	0	520	169	0	846
V/C Ratio(X)	0.07	0.00	0.67	0.20	0.00	0.16	0.03	0.00	0.94	0.09	0.00	0.12
Avail Cap(c_a), veh/h	444	0	347	249	0	364	765	0	520	169	0	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	20.2	26.2	0.0	17.0	8.1	0.0	14.1	28.9	0.0	7.4
Incr Delay (d2), s/veh	0.3	0.0	9.9	1.8	0.0	0.9	0.1	0.0	27.1	1.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	4.0	0.8	0.0	0.7	0.2	0.0	9.9	0.3	0.0	0.7
Lane Grp Delay (d), s/veh	18.6	0.0	30.0	28.0	0.0	17.9	8.2	0.0	41.2	30.0	0.0	7.7
Lane Grp LOS	B		C	C		B	A		D	C		A
Approach Vol, veh/h		265			106			510			117	
Approach Delay, s/veh		28.6			22.6			39.8			10.8	
Approach LOS		C			C			D			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	24.6	24.6	40.4	40.4
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.1	19.1	34.9	34.9
Max Q Clear Time (g_c+I1), s	13.2	15.8	32.7	33.8
Green Ext Time (p_c), s	0.8	0.5	0.7	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	31.6
HCM 2010 LOS	C

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	42	118	106	47	90	95
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	0.61	0.60	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	171.2	197.4	194.8	179.0	180.8
Lanes	1	1	1	0	1	1
Cap, veh/h	438	357	527	234	573	738
Arrive On Green	0.41	0.41	0.82	0.82	0.41	0.41
Sat Flow, veh/h	1073	873	1291	573	1166	1808
Grp Volume(v), veh/h	46	128	0	166	98	103
Grp Sat Flow(s),veh/h/ln	1073	873	0	1864	1166	1808
Q Serve(g_s), s	1.6	6.1	0.0	1.2	3.4	2.1
Cycle Q Clear(g_c), s	1.6	6.1	0.0	1.2	4.6	2.1
Prop In Lane	1.00	1.00		0.31	1.00	
Lane Grp Cap(c), veh/h	438	357	0	761	573	738
V/C Ratio(X)	0.10	0.36	0.00	0.22	0.17	0.14
Avail Cap(c_a), veh/h	438	357	0	761	573	738
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.0	12.3	0.0	3.4	12.2	11.1
Incr Delay (d2), s/veh	0.5	2.8	0.0	0.7	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	1.5	0.0	0.6	1.0	0.9
Lane Grp Delay (d), s/veh	11.5	15.1	0.0	4.0	12.9	11.5
Lane Grp LOS	B	B		A	B	B
Approach Vol, veh/h	174		166			201
Approach Delay, s/veh	14.1		4.0			12.2
Approach LOS	B		A			B

Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			30.0			30.0
Change Period (Y+Rc), s			5.5			5.5
Max Green Setting (Gmax), s			24.5			24.5
Max Q Clear Time (g_c+I1), s			3.2			6.6
Green Ext Time (p_c), s			1.4			1.4

Intersection Summary						
HCM 2010 Ctrl Delay			10.3			
HCM 2010 LOS			B			

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	19	169	32	19	63	113	110	350	54	34	526	96
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	186.0	191.0	190.0	190.0	193.8	186.3	186.3	186.3	184.4	184.4	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	196	340	65	250	137	245	328	1574	669	149	1189	506
Arrive On Green	0.24	0.22	0.22	0.24	0.22	0.22	0.19	0.42	0.42	0.09	0.32	0.32
Sat Flow, veh/h	1109	1520	289	1181	611	1096	1774	3725	1583	1756	3688	1568
Grp Volume(v), veh/h	21	0	219	29	0	271	175	556	86	42	649	119
Grp Sat Flow(s),veh/h/ln	1109	0	1809	1181	0	1707	1774	1863	1583	1756	1844	1568
Q Serve(g_s), s	1.4	0.0	8.6	1.7	0.0	11.7	7.1	8.1	2.7	1.8	11.6	4.5
Cycle Q Clear(g_c), s	13.1	0.0	8.6	10.3	0.0	11.7	7.1	8.1	2.7	1.8	11.6	4.5
Prop In Lane	1.00		0.16	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	0	405	250	0	382	328	1574	669	149	1189	506
V/C Ratio(X)	0.11	0.00	0.54	0.12	0.00	0.71	0.53	0.35	0.13	0.28	0.55	0.24
Avail Cap(c_a), veh/h	196	0	405	250	0	382	328	1574	669	149	1189	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	27.4	30.6	0.0	28.7	29.5	15.7	14.1	34.3	22.3	19.9
Incr Delay (d2), s/veh	1.1	0.0	5.1	0.9	0.0	10.7	6.1	0.6	0.4	4.7	1.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	4.4	0.6	0.0	6.1	3.5	3.4	1.0	0.9	5.1	1.7
Lane Grp Delay (d), s/veh	34.4	0.0	32.5	31.6	0.0	39.3	35.6	16.3	14.5	39.0	24.1	21.0
Lane Grp LOS	C		C	C		D	D	B	B	D	C	C
Approach Vol, veh/h		240			300			817			810	
Approach Delay, s/veh		32.7			38.6			20.2			24.4	
Approach LOS		C			D			C			C	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		27.0			27.0		21.0	40.0		13.0	32.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		17.9			17.9		14.8	33.8		6.8	25.8	
Max Q Clear Time (g_c+I1), s		15.1			13.7		9.1	10.1		3.8	13.6	
Green Ext Time (p_c), s		0.6			0.9		0.2	5.5		0.0	4.4	

Intersection Summary												
HCM 2010 Ctrl Delay			25.7									
HCM 2010 LOS			C									

Notes

HCM 2010 Signalized Intersection Summary
62: RIDGE ST & McClellan Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	42	15	36	1	8	6	48	425	13	12	236	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.50
Adj Sat Flow veh/h/ln	163.8	193.7	190.0	166.7	178.0	190.0	186.3	190.1	190.0	188.1	186.3	179.3
Lanes	1	1	0	1	1	0	1	1	0	1	1	1
Cap, veh/h	426	135	330	400	250	195	644	1049	32	497	1065	430
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1221	498	1215	1201	921	717	1076	1836	56	923	1863	753
Grp Volume(v), veh/h	46	0	55	1	0	16	52	0	476	13	257	41
Grp Sat Flow(s),veh/h/ln	1221	0	1714	1201	0	1638	1076	0	1891	923	1863	753
Q Serve(g_s), s	2.0	0.0	1.7	0.0	0.0	0.5	1.8	0.0	10.1	0.6	4.8	1.7
Cycle Q Clear(g_c), s	2.5	0.0	1.7	1.7	0.0	0.5	6.6	0.0	10.1	10.7	4.8	1.7
Prop In Lane	1.00		0.71	1.00		0.44	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	426	0	465	400	0	445	644	0	1081	497	1065	430
V/C Ratio(X)	0.11	0.00	0.12	0.00	0.00	0.04	0.08	0.00	0.44	0.03	0.24	0.10
Avail Cap(c_a), veh/h	426	0	465	400	0	445	644	0	1081	497	1065	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	0.0	19.2	19.8	0.0	18.8	9.1	0.0	8.6	11.6	7.5	6.8
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.0	0.0	0.2	0.2	0.0	1.3	0.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	0.8	0.0	0.0	0.2	0.4	0.0	4.1	0.1	1.9	0.3
Lane Grp Delay (d), s/veh	20.2	0.0	19.7	19.9	0.0	18.9	9.3	0.0	9.9	11.7	8.0	7.2
Lane Grp LOS	C		B	B		B	A		A	B	A	A
Approach Vol, veh/h		101			17			528			311	
Approach Delay, s/veh		19.9			19.0			9.8			8.1	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	24.5	24.5	45.5	45.5
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.0	19.0	40.0	40.0
Max Q Clear Time (g_c+I1), s	4.5	3.7	12.1	12.7
Green Ext Time (p_c), s	0.3	0.3	3.6	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	0	19	1	0	3	25	429	0	3	160	61
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	167.6	167.6	171.0	167.6	167.6	177.8	167.6	167.6	177.8	167.6	167.6	177.8
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	524	0	490	506	0	490	553	1739	0	456	1216	445
Arrive On Green	0.34	0.00	0.34	0.34	0.00	0.34	0.52	0.52	0.00	0.17	0.17	0.17
Sat Flow, veh/h	1267	0	1425	1247	0	1425	1022	3353	0	831	2345	857
Grp Volume(v), veh/h	53	0	21	1	0	3	27	466	0	3	123	117
Grp Sat Flow(s),veh/h/ln	1267	0	1425	1247	0	1425	1022	1676	0	831	1676	1525
Q Serve(g_s), s	2.3	0.0	0.8	0.0	0.0	0.1	1.2	6.2	0.0	0.2	5.0	5.2
Cycle Q Clear(g_c), s	2.4	0.0	0.8	0.8	0.0	0.1	6.4	6.2	0.0	6.5	5.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.56
Lane Grp Cap(c), veh/h	524	0	490	506	0	490	553	1739	0	456	870	791
V/C Ratio(X)	0.10	0.00	0.04	0.00	0.00	0.01	0.05	0.27	0.00	0.01	0.14	0.15
Avail Cap(c_a), veh/h	524	0	490	506	0	490	553	1739	0	456	870	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	17.5	17.8	0.0	17.3	12.3	10.8	0.0	21.3	18.0	18.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	0.3	0.0	0.0	0.0	0.3	2.3	0.0	0.1	2.0	1.9
Lane Grp Delay (d), s/veh	18.1	0.0	17.5	17.8	0.0	17.3	12.4	11.1	0.0	21.3	18.1	18.2
Lane Grp LOS	B		B	B		B	B	B		C	B	B
Approach Vol, veh/h		74			4			493			243	
Approach Delay, s/veh		18.0			17.4			11.2			18.2	
Approach LOS		B			B			B			B	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		33.0			33.0			47.0			47.0	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		27.5			27.5			41.5			41.5	
Max Q Clear Time (g_c+I1), s		4.4			2.8			8.4			8.5	
Green Ext Time (p_c), s		0.2			0.2			5.0			5.0	

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	289	94	79	211	2	20	0	60	1	2	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	946	948	308	633	1297	11	227	0	98	170	116	0
Arrive On Green	0.23	0.23	0.23	1.00	1.00	1.00	0.06	0.00	0.06	0.06	0.06	0.00
Sat Flow, veh/h	1145	1348	438	966	1844	16	1409	0	1583	1331	1863	0
Grp Volume(v), veh/h	1	0	416	86	0	231	22	0	65	1	2	0
Grp Sat Flow(s),veh/h/ln	1145	0	1785	966	0	1860	1409	0	1583	1331	1863	0
Q Serve(g_s), s	0.0	0.0	9.9	1.4	0.0	0.0	0.8	0.0	2.1	0.0	0.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	9.9	11.4	0.0	0.0	0.8	0.0	2.1	2.1	0.1	0.0
Prop In Lane	1.00		0.25	1.00		0.01	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	946	0	1256	633	0	1308	227	0	98	170	116	0
V/C Ratio(X)	0.00	0.00	0.33	0.14	0.00	0.18	0.10	0.00	0.66	0.01	0.02	0.00
Avail Cap(c_a), veh/h	946	0	1256	633	0	1308	745	0	681	659	801	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.00	0.85	0.97	0.00	0.97	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	5.8	0.0	9.6	1.6	0.0	0.0	22.9	0.0	23.5	24.5	22.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.4	0.0	0.3	0.2	0.0	7.3	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	5.0	0.1	0.0	0.1	0.3	0.0	0.9	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	5.8	0.0	10.2	2.0	0.0	0.3	23.1	0.0	30.8	24.5	22.6	0.0
Lane Grp LOS	A		B	A		A	C		C	C	C	
Approach Vol, veh/h		417			317			87			3	
Approach Delay, s/veh		10.2			0.7			28.9			23.2	
Approach LOS		B			A			C			C	

Timer				
Assigned Phs	2	6	8	4
Phs Duration (G+Y+Rc), s	42.0	42.0	9.2	9.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	36.0	36.0	22.0	22.0
Max Q Clear Time (g_c+I1), s	11.9	13.4	4.1	4.1
Green Ext Time (p_c), s	4.3	4.2	0.3	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

Notes

MID-DAY PEAK HOUR

HCM 2010 Signalized Intersection Summary
6: McCLELLAN AVE & WRIGHT ST

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	358	52	88	395	0	36	1	98	0	0	1
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	180.5	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	52	846	123	468	931	0	515	4	460	0	0	417
Arrive On Green	0.55	0.55	0.55	1.00	1.00	0.00	0.29	0.29	0.29	0.00	0.00	0.29
Sat Flow, veh/h	1	1538	224	921	1693	0	1410	15	1571	0	0	1425
Grp Volume(v), veh/h	448	0	0	96	429	0	39	0	108	0	0	1
Grp Sat Flow(s),veh/h/ln	1764	0	0	921	1693	0	1410	0	1586	0	0	1425
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	0.0	1.4	0.0	3.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.7	0.0	0.0	13.2	0.0	0.0	1.4	0.0	3.6	0.0	0.0	0.0
Prop In Lane	0.00		0.13	1.00		0.00	1.00		0.99	0.00		1.00
Lane Grp Cap(c), veh/h	1022	0	0	468	931	0	515	0	464	0	0	417
V/C Ratio(X)	0.44	0.00	0.00	0.20	0.46	0.00	0.08	0.00	0.23	0.00	0.00	0.00
Avail Cap(c_a), veh/h	1022	0	0	468	931	0	515	0	464	0	0	417
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.97	0.97	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	9.5	0.0	0.0	1.8	0.0	0.0	18.0	0.0	18.8	0.0	0.0	17.5
Incr Delay (d2), s/veh	1.4	0.0	0.0	1.0	1.6	0.0	0.3	0.0	1.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.1	0.0	0.0	0.2	0.4	0.0	0.5	0.0	1.4	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	10.9	0.0	0.0	2.8	1.6	0.0	18.3	0.0	20.0	0.0	0.0	17.5
Lane Grp LOS	B			A	A		B		B			B
Approach Vol, veh/h		448			525			147			1	
Approach Delay, s/veh		10.9			1.8			19.5			17.5	
Approach LOS		B			A			B			B	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	44.0	44.0	26.0	26.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	38.5	38.5	20.5	20.5
Max Q Clear Time (g_c+I1), s	12.7	15.2	5.6	2.0
Green Ext Time (p_c), s	4.2	4.1	0.5	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	7.8
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	105	62	126	113	12	43	165	146	18	156	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	460	260	153	412	399	42	577	230	204	288	647	49
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1193	732	430	1194	1126	119	1199	516	459	1037	1452	111
Grp Volume(v), veh/h	16	0	181	137	0	136	47	0	338	20	0	183
Grp Sat Flow(s),veh/h/ln	1193	0	1163	1194	0	1245	1199	0	975	1037	0	1563
Q Serve(g_s), s	0.5	0.0	6.5	5.5	0.0	4.4	1.4	0.0	16.2	0.9	0.0	4.0
Cycle Q Clear(g_c), s	4.9	0.0	6.5	12.0	0.0	4.4	5.5	0.0	16.2	17.1	0.0	4.0
Prop In Lane	1.00		0.37	1.00		0.10	1.00		0.47	1.00		0.07
Lane Grp Cap(c), veh/h	460	0	412	412	0	441	577	0	434	288	0	696
V/C Ratio(X)	0.03	0.00	0.44	0.33	0.00	0.31	0.08	0.00	0.78	0.07	0.00	0.26
Avail Cap(c_a), veh/h	460	0	412	412	0	441	577	0	434	288	0	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.6	0.0	13.6	18.2	0.0	12.9	11.3	0.0	12.9	20.2	0.0	9.6
Incr Delay (d2), s/veh	0.1	0.0	3.4	2.2	0.0	1.8	0.3	0.0	12.9	0.5	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	2.1	1.8	0.0	1.4	0.4	0.0	4.7	0.2	0.0	1.4
Lane Grp Delay (d), s/veh	14.8	0.0	16.9	20.3	0.0	14.7	11.6	0.0	25.8	20.7	0.0	10.5
Lane Grp LOS	B		B	C		B	B		C	C		B
Approach Vol, veh/h		197			273			385			203	
Approach Delay, s/veh		16.8			17.5			24.1			11.5	
Approach LOS		B			B			C			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	30.0	30.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	24.5	24.5
Max Q Clear Time (g_c+I1), s	8.5	14.0	18.2	19.1
Green Ext Time (p_c), s	1.5	1.0	1.4	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	62	229	201	78	211	199
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	0.61	0.60	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	171.2	197.5	194.8	179.0	180.8
Lanes	1	1	1	0	1	1
Cap, veh/h	402	327	595	232	424	798
Arrive On Green	0.38	0.38	0.15	0.15	0.44	0.44
Sat Flow, veh/h	1073	873	1348	526	1030	1808
Grp Volume(v), veh/h	67	249	0	303	229	216
Grp Sat Flow(s),veh/h/ln	1073	873	0	1873	1030	1808
Q Serve(g_s), s	2.5	15.0	0.0	8.8	12.1	4.5
Cycle Q Clear(g_c), s	2.5	15.0	0.0	8.8	20.8	4.5
Prop In Lane	1.00	1.00		0.28	1.00	
Lane Grp Cap(c), veh/h	402	327	0	827	424	798
V/C Ratio(X)	0.17	0.76	0.00	0.37	0.54	0.27
Avail Cap(c_a), veh/h	402	327	0	827	424	798
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	16.4	0.0	18.0	19.1	10.6
Incr Delay (d2), s/veh	0.9	15.3	0.0	1.3	4.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	4.4	0.0	4.7	3.5	2.0
Lane Grp Delay (d), s/veh	13.4	31.7	0.0	19.3	24.0	11.5
Lane Grp LOS	B	C		B	C	B
Approach Vol, veh/h	316		303			445
Approach Delay, s/veh	27.8		19.3			17.9
Approach LOS	C		B			B

Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			32.0			32.0
Change Period (Y+Rc), s			5.5			5.5
Max Green Setting (Gmax), s			26.5			26.5
Max Q Clear Time (g_c+I1), s			10.8			22.8
Green Ext Time (p_c), s			3.0			1.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
49: GROVE ST & US 41

4/24/2014

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	27	89	47	36	106	165	121	538	34	39	491	37
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	184.7	191.0	190.0	171.6	193.8	193.7	146.2	142.9	191.8	162.2	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	223	311	164	373	166	258	272	1089	452	155	1005	486
Arrive On Green	0.29	0.27	0.27	0.29	0.27	0.27	0.15	0.37	0.37	0.09	0.31	0.31
Sat Flow, veh/h	1086	1137	598	1259	606	943	1845	2923	1214	1827	3243	1568
Grp Volume(v), veh/h	29	0	148	39	0	294	132	585	37	42	534	40
Grp Sat Flow(s),veh/h/ln	1086	0	1734	1259	0	1549	1845	1462	1214	1827	1622	1568
Q Serve(g_s), s	1.9	0.0	5.4	2.0	0.0	13.6	5.3	12.6	1.6	1.7	10.9	1.4
Cycle Q Clear(g_c), s	15.5	0.0	5.4	7.4	0.0	13.6	5.3	12.6	1.6	1.7	10.9	1.4
Prop In Lane	1.00		0.34	1.00		0.61	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	0	475	373	0	424	272	1089	452	155	1005	486
V/C Ratio(X)	0.13	0.00	0.31	0.10	0.00	0.69	0.49	0.54	0.08	0.27	0.53	0.08
Avail Cap(c_a), veh/h	223	0	475	373	0	424	272	1089	452	155	1005	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	23.1	24.8	0.0	26.0	31.3	19.7	16.2	34.3	22.8	19.5
Incr Delay (d2), s/veh	1.2	0.0	1.7	0.6	0.0	9.0	6.1	1.9	0.4	4.2	2.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	2.5	0.7	0.0	6.3	2.7	4.4	0.5	0.9	4.2	0.6
Lane Grp Delay (d), s/veh	32.9	0.0	24.8	25.4	0.0	35.0	37.4	21.6	16.6	38.5	24.8	19.9
Lane Grp LOS	C		C	C		D	D	C	B	D	C	B
Approach Vol, veh/h		177			333			754			616	
Approach Delay, s/veh		26.1			33.9			24.1			25.4	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		31.0			31.0		18.0	36.0		13.0	31.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		21.9			21.9		11.8	29.8		6.8	24.8	
Max Q Clear Time (g_c+I1), s		17.5			15.6		7.3	14.6		3.7	12.9	
Green Ext Time (p_c), s		0.8			1.1		0.1	4.1		0.0	3.7	

Intersection Summary												
HCM 2010 Ctrl Delay			26.5									
HCM 2010 LOS			C									

Notes

HCM 2010 Signalized Intersection Summary
62: RIDGE ST & McClellan Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	19	97	9	26	21	81	352	24	29	344	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.50
Adj Sat Flow veh/h/ln	163.8	193.7	190.0	166.7	178.4	190.0	186.3	190.2	190.0	188.1	186.3	179.3
Lanes	1	1	0	1	1	0	1	1	0	1	1	1
Cap, veh/h	396	76	380	342	244	200	544	1007	68	547	1065	430
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1184	280	1400	1126	899	738	951	1761	120	981	1863	753
Grp Volume(v), veh/h	71	0	126	10	0	51	88	0	409	32	374	58
Grp Sat Flow(s),veh/h/ln	1184	0	1681	1126	0	1637	951	0	1881	981	1863	753
Q Serve(g_s), s	3.4	0.0	4.1	0.5	0.0	1.6	3.8	0.0	8.3	1.3	7.5	2.5
Cycle Q Clear(g_c), s	5.0	0.0	4.1	4.6	0.0	1.6	11.4	0.0	8.3	9.6	7.5	2.5
Prop In Lane	1.00		0.83	1.00		0.45	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	396	0	456	342	0	444	544	0	1075	547	1065	430
V/C Ratio(X)	0.18	0.00	0.28	0.03	0.00	0.11	0.16	0.00	0.38	0.06	0.35	0.13
Avail Cap(c_a), veh/h	396	0	456	342	0	444	544	0	1075	547	1065	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	20.1	21.9	0.0	19.2	11.1	0.0	8.2	10.9	8.0	7.0
Incr Delay (d2), s/veh	1.0	0.0	1.5	0.2	0.0	0.5	0.6	0.0	1.0	0.2	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	1.8	0.2	0.0	0.7	0.9	0.0	3.3	0.3	3.0	0.4
Lane Grp Delay (d), s/veh	22.0	0.0	21.6	22.1	0.0	19.7	11.7	0.0	9.2	11.1	9.0	7.6
Lane Grp LOS	C		C	C		B	B		A	B	A	A
Approach Vol, veh/h		197			61			497			464	
Approach Delay, s/veh		21.7			20.1			9.7			8.9	
Approach LOS		C			C			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		24.5			24.5			45.5			45.5	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		19.0			19.0			40.0			40.0	
Max Q Clear Time (g_c+I1), s		7.0			6.6			13.4			11.6	
Green Ext Time (p_c), s		0.8			0.8			4.1			4.2	

Intersection Summary												
HCM 2010 Ctrl Delay			11.9									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	155	0	53	0	1	7	29	276	1	6	260	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	725	0	722	90	82	653	386	1508	5	470	902	520
Arrive On Green	0.46	0.00	0.46	0.00	0.46	0.46	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1400	0	1583	1340	179	1431	936	3711	12	1074	2220	1279
Grp Volume(v), veh/h	168	0	58	0	0	9	32	151	150	7	236	215
Grp Sat Flow(s),veh/h/ln	1400	0	1583	1340	0	1610	936	1863	1861	1074	1863	1637
Q Serve(g_s), s	6.0	0.0	1.7	0.0	0.0	0.2	1.9	4.2	4.2	0.3	6.9	7.2
Cycle Q Clear(g_c), s	6.2	0.0	1.7	0.0	0.0	0.2	9.1	4.2	4.2	4.5	6.9	7.2
Prop In Lane	1.00		1.00	1.00		0.89	1.00		0.01	1.00		0.78
Lane Grp Cap(c), veh/h	725	0	722	90	0	735	386	757	756	470	757	665
V/C Ratio(X)	0.23	0.00	0.08	0.00	0.00	0.01	0.08	0.20	0.20	0.01	0.31	0.32
Avail Cap(c_a), veh/h	725	0	722	90	0	735	386	757	756	470	757	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	12.3	0.0	0.0	11.9	19.3	15.3	15.3	16.8	16.1	16.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.9	0.0	0.6	0.0	0.0	0.1	0.5	1.9	1.9	0.1	2.9	2.7
Lane Grp Delay (d), s/veh	13.8	0.0	12.3	0.0	0.0	11.9	19.8	15.9	15.9	16.8	16.4	16.5
Lane Grp LOS	B		B			B	B	B	B	B	B	B
Approach Vol, veh/h		226			9			333			458	
Approach Delay, s/veh		13.4			11.9			16.3			16.4	
Approach LOS		B			B			B			B	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		42.0			42.0			38.0			38.0	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		36.5			36.5			32.5			32.5	
Max Q Clear Time (g_c+I1), s		8.2			2.2			11.1			9.2	
Green Ext Time (p_c), s		0.8			0.9			4.5			4.7	

Intersection Summary			
HCM 2010 Ctrl Delay			15.7
HCM 2010 LOS			B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	349	70	107	341	3	65	1	135	2	1	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	690	975	196	683	1194	10	323	1	216	189	256	0
Arrive On Green	0.86	0.86	0.86	0.65	0.65	0.65	0.14	0.14	0.14	0.14	0.14	0.00
Sat Flow, veh/h	1004	1507	302	932	1845	15	1410	11	1574	1235	1863	0
Grp Volume(v), veh/h	2	0	455	116	0	374	71	0	148	2	1	0
Grp Sat Flow(s),veh/h/ln	1004	0	1809	932	0	1860	1410	0	1585	1235	1863	0
Q Serve(g_s), s	0.0	0.0	2.9	3.2	0.0	4.9	2.5	0.0	4.9	0.1	0.0	0.0
Cycle Q Clear(g_c), s	5.0	0.0	2.9	6.1	0.0	4.9	2.6	0.0	4.9	5.0	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.01	1.00		0.99	1.00		0.00
Lane Grp Cap(c), veh/h	690	0	1171	683	0	1203	323	0	218	189	256	0
V/C Ratio(X)	0.00	0.00	0.39	0.17	0.00	0.31	0.22	0.00	0.68	0.01	0.00	0.00
Avail Cap(c_a), veh/h	690	0	1171	683	0	1203	686	0	627	508	736	0
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.89	0.93	0.00	0.93	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	2.4	0.0	1.6	5.2	0.0	4.3	21.8	0.0	22.8	25.2	20.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.9	0.5	0.0	0.6	0.3	0.0	3.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.9	0.6	0.0	1.6	0.9	0.0	2.0	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	2.4	0.0	2.4	5.7	0.0	5.0	22.2	0.0	26.5	25.2	20.7	0.0
Lane Grp LOS	A		A	A		A	C		C	C	C	
Approach Vol, veh/h		457			490			219			3	
Approach Delay, s/veh		2.4			5.1			25.1			23.7	
Approach LOS		A			A			C			C	

Timer				
Assigned Phs	2	6	8	4
Phs Duration (G+Y+Rc), s	42.0	42.0	13.6	13.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	36.0	36.0	22.0	22.0
Max Q Clear Time (g_c+I1), s	7.0	8.1	6.9	7.0
Green Ext Time (p_c), s	6.0	6.0	0.9	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

Notes

PM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	447	31	125	562	3	103	4	123	0	2	3
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	179.9	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	938	66	433	950	5	491	13	430	0	169	253
Arrive On Green	0.00	0.56	0.56	1.00	1.00	1.00	0.28	0.28	0.28	0.00	0.28	0.28
Sat Flow, veh/h	0	1662	116	860	1684	8	1405	46	1544	0	606	910
Grp Volume(v), veh/h	0	0	520	136	0	614	112	0	138	0	0	5
Grp Sat Flow(s),veh/h/ln	0	0	1778	860	0	1692	1405	0	1590	0	0	1516
Q Serve(g_s), s	0.0	0.0	12.6	4.9	0.0	0.0	4.4	0.0	4.8	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.0	0.0	12.6	17.5	0.0	0.0	4.6	0.0	4.8	0.0	0.0	0.2
Prop In Lane	0.00		0.07	1.00		0.00	1.00		0.97	0.00		0.60
Lane Grp Cap(c), veh/h	0	0	1003	433	0	955	491	0	443	0	0	422
V/C Ratio(X)	0.00	0.00	0.52	0.31	0.00	0.64	0.23	0.00	0.31	0.00	0.00	0.01
Avail Cap(c_a), veh/h	0	0	1003	433	0	955	491	0	443	0	0	422
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.90	0.00	0.90	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	9.4	2.8	0.0	0.0	19.9	0.0	19.9	0.0	0.0	18.3
Incr Delay (d2), s/veh	0.0	0.0	1.9	1.7	0.0	3.0	1.1	0.0	1.8	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	5.0	0.5	0.0	0.8	1.5	0.0	1.9	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	11.3	4.5	0.0	3.0	21.0	0.0	21.8	0.0	0.0	18.3
Lane Grp LOS			B	A		A	C		C			B
Approach Vol, veh/h		520			750			250			5	
Approach Delay, s/veh		11.3			3.3			21.4			18.3	
Approach LOS		B			A			C			B	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	45.0	45.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	39.5	39.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	14.6	19.5	6.8	2.2
Green Ext Time (p_c), s	5.9	5.6	0.9	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	105	83	185	178	41	72	148	100	18	206	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	408	250	198	446	387	90	453	229	155	320	546	61
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1088	642	507	1169	993	231	1129	588	398	1103	1399	156
Grp Volume(v), veh/h	9	0	204	201	0	238	78	0	270	20	0	249
Grp Sat Flow(s),veh/h/ln	1088	0	1148	1169	0	1224	1129	0	986	1103	0	1555
Q Serve(g_s), s	0.3	0.0	6.6	7.7	0.0	7.4	2.7	0.0	11.5	0.8	0.0	5.8
Cycle Q Clear(g_c), s	7.7	0.0	6.6	14.3	0.0	7.4	8.5	0.0	11.5	12.3	0.0	5.8
Prop In Lane	1.00		0.44	1.00		0.19	1.00		0.40	1.00		0.10
Lane Grp Cap(c), veh/h	408	0	448	446	0	477	453	0	385	320	0	606
V/C Ratio(X)	0.02	0.00	0.46	0.45	0.00	0.50	0.17	0.00	0.70	0.06	0.00	0.41
Avail Cap(c_a), veh/h	408	0	448	446	0	477	453	0	385	320	0	606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	11.3	16.6	0.0	11.5	14.2	0.0	12.8	18.0	0.0	11.1
Incr Delay (d2), s/veh	0.1	0.0	3.3	3.3	0.0	3.7	0.8	0.0	10.3	0.4	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	2.1	2.5	0.0	2.4	0.8	0.0	3.3	0.2	0.0	2.1
Lane Grp Delay (d), s/veh	14.6	0.0	14.6	19.9	0.0	15.2	15.0	0.0	23.1	18.3	0.0	13.1
Lane Grp LOS	B		B	B		B	B		C	B		B
Approach Vol, veh/h		213			439			348			269	
Approach Delay, s/veh		14.6			17.4			21.3			13.5	
Approach LOS		B			B			C			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	9.7	16.3	13.5	14.3
Green Ext Time (p_c), s	2.1	1.0	1.4	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	59	227	249	79	286	194
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	0.61	0.60	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	171.2	197.6	194.8	179.0	180.8
Lanes	1	1	1	0	1	1
Cap, veh/h	349	284	705	224	597	889
Arrive On Green	0.32	0.32	0.98	0.98	0.49	0.49
Sat Flow, veh/h	1073	873	1433	455	980	1808
Grp Volume(v), veh/h	64	247	0	357	311	211
Grp Sat Flow(s),veh/h/ln	1073	873	0	1888	980	1808
Q Serve(g_s), s	2.6	16.0	0.0	0.3	14.3	4.0
Cycle Q Clear(g_c), s	2.6	16.0	0.0	0.3	14.6	4.0
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	349	284	0	928	597	889
V/C Ratio(X)	0.18	0.87	0.00	0.38	0.52	0.24
Avail Cap(c_a), veh/h	349	284	0	928	597	889
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	19.1	0.0	0.3	11.6	8.8
Incr Delay (d2), s/veh	1.2	28.6	0.0	1.2	3.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	5.5	0.0	0.4	3.6	1.7
Lane Grp Delay (d), s/veh	15.7	47.6	0.0	1.5	14.8	9.4
Lane Grp LOS	B	D		A	B	A
Approach Vol, veh/h	311		357			522
Approach Delay, s/veh	41.1		1.5			12.6
Approach LOS	D		A			B

Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			35.0			35.0
Change Period (Y+Rc), s			5.5			5.5
Max Green Setting (Gmax), s			29.5			29.5
Max Q Clear Time (g_c+I1), s			2.3			16.6
Green Ext Time (p_c), s			4.1			3.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	23	108	86	74	171	203	77	694	43	69	583	42
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	184.0	191.0	190.0	173.4	193.8	193.7	146.2	142.9	191.8	162.2	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	163	284	226	350	216	256	203	1016	421	155	1046	504
Arrive On Green	0.32	0.30	0.30	0.32	0.30	0.30	0.11	0.35	0.35	0.09	0.32	0.32
Sat Flow, veh/h	979	950	755	1189	722	858	1845	2923	1211	1827	3243	1563
Grp Volume(v), veh/h	25	0	210	80	0	407	84	754	47	75	634	46
Grp Sat Flow(s),veh/h/ln	979	0	1705	1189	0	1580	1845	1462	1211	1827	1622	1563
Q Serve(g_s), s	1.9	0.0	7.9	4.5	0.0	19.5	3.4	18.1	2.1	3.1	13.2	1.6
Cycle Q Clear(g_c), s	21.4	0.0	7.9	12.4	0.0	19.5	3.4	18.1	2.1	3.1	13.2	1.6
Prop In Lane	1.00		0.44	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	163	0	509	350	0	472	203	1016	421	155	1046	504
V/C Ratio(X)	0.15	0.00	0.41	0.23	0.00	0.86	0.41	0.74	0.11	0.48	0.61	0.09
Avail Cap(c_a), veh/h	163	0	509	350	0	472	203	1016	421	155	1046	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	22.4	26.2	0.0	26.5	33.2	23.0	17.7	34.9	22.8	18.9
Incr Delay (d2), s/veh	2.0	0.0	2.5	1.5	0.0	18.4	6.1	4.9	0.5	10.4	2.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	3.7	1.5	0.0	10.0	1.8	6.6	0.6	1.8	5.1	0.6
Lane Grp Delay (d), s/veh	37.2	0.0	24.9	27.7	0.0	44.9	39.3	27.8	18.3	45.3	25.4	19.3
Lane Grp LOS	D		C	C		D	D	C	B	D	C	B
Approach Vol, veh/h		235			487			885			755	
Approach Delay, s/veh		26.2			42.0			28.4			27.0	
Approach LOS		C			D			C			C	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		33.0			33.0		15.0	34.0		13.0	32.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		23.9			23.9		8.8	27.8		6.8	25.8	
Max Q Clear Time (g_c+I1), s		23.4			21.5		5.4	20.1		5.1	15.2	
Green Ext Time (p_c), s		0.2			0.8		0.0	3.6		0.0	4.5	

Intersection Summary	
HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
62: RIDGE ST & McClellan Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	61	28	115	11	26	28	80	346	29	18	467	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.50
Adj Sat Flow veh/h/ln	163.8	193.7	190.0	166.7	180.1	190.0	186.3	190.3	190.0	188.1	186.3	179.3
Lanes	1	1	0	1	1	0	1	1	0	1	1	1
Cap, veh/h	391	89	369	320	214	230	428	988	84	547	1065	430
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1176	327	1361	1097	789	846	793	1729	147	982	1863	753
Grp Volume(v), veh/h	66	0	155	12	0	58	87	0	408	20	508	122
Grp Sat Flow(s),veh/h/ln	1176	0	1688	1097	0	1635	793	0	1877	982	1863	753
Q Serve(g_s), s	3.1	0.0	5.2	0.6	0.0	1.9	5.1	0.0	8.3	0.8	11.2	5.8
Cycle Q Clear(g_c), s	5.0	0.0	5.2	5.8	0.0	1.9	16.3	0.0	8.3	9.1	11.2	5.8
Prop In Lane	1.00		0.81	1.00		0.52	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	391	0	458	320	0	444	428	0	1072	547	1065	430
V/C Ratio(X)	0.17	0.00	0.34	0.04	0.00	0.13	0.20	0.00	0.38	0.04	0.48	0.28
Avail Cap(c_a), veh/h	391	0	458	320	0	444	428	0	1072	547	1065	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	20.5	22.8	0.0	19.3	13.7	0.0	8.2	10.7	8.8	7.7
Incr Delay (d2), s/veh	0.9	0.0	2.0	0.2	0.0	0.6	1.1	0.0	1.0	0.1	1.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	0.0	2.3	0.2	0.0	0.8	1.0	0.0	3.3	0.2	4.4	1.0
Lane Grp Delay (d), s/veh	22.1	0.0	22.5	23.0	0.0	19.9	14.7	0.0	9.2	10.8	10.4	9.3
Lane Grp LOS	C		C	C		B	B		A	B	B	A
Approach Vol, veh/h		221			70			495			650	
Approach Delay, s/veh		22.3			20.4			10.2			10.2	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		24.5			24.5			45.5			45.5	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		19.0			19.0			40.0			40.0	
Max Q Clear Time (g_c+I1), s		7.2			7.8			18.3			13.2	
Green Ext Time (p_c), s		0.9			0.9			5.0			5.2	

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
66: McCLELLEN AVE/McCLELLAN AVE & Odovero Dr

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	142	0	101	0	0	2	41	309	0	2	462	212
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	609	0	584	90	0	584	350	1839	0	551	1197	546
Arrive On Green	0.37	0.00	0.37	0.00	0.00	0.37	0.49	0.49	0.00	0.49	0.49	0.49
Sat Flow, veh/h	1409	0	1583	1278	0	1583	721	3725	0	1040	2425	1106
Grp Volume(v), veh/h	154	0	110	0	0	2	45	336	0	2	385	347
Grp Sat Flow(s),veh/h/ln	1409	0	1583	1278	0	1583	721	1863	0	1040	1863	1668
Q Serve(g_s), s	6.2	0.0	3.8	0.0	0.0	0.1	3.4	4.0	0.0	0.1	10.6	10.6
Cycle Q Clear(g_c), s	6.3	0.0	3.8	0.0	0.0	0.1	14.0	4.0	0.0	4.1	10.6	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.66
Lane Grp Cap(c), veh/h	609	0	584	90	0	584	350	1839	0	551	920	823
V/C Ratio(X)	0.25	0.00	0.19	0.00	0.00	0.00	0.13	0.18	0.00	0.00	0.42	0.42
Avail Cap(c_a), veh/h	609	0	584	90	0	584	350	1839	0	551	920	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	17.1	0.0	0.0	16.0	17.4	11.3	0.0	12.4	12.9	12.9
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.0	0.0	0.0	0.8	0.2	0.0	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.0	0.0	1.4	0.0	0.0	0.0	0.6	1.7	0.0	0.0	4.4	3.9
Lane Grp Delay (d), s/veh	18.2	0.0	17.3	0.0	0.0	16.0	18.2	11.5	0.0	12.4	13.2	13.3
Lane Grp LOS	B		B			B	B	B		B	B	B
Approach Vol, veh/h		264			2			381			734	
Approach Delay, s/veh		17.8			16.0			12.3			13.3	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	35.0	35.0	45.0	45.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	29.5	29.5	39.5	39.5
Max Q Clear Time (g_c+I1), s	8.3	2.1	16.0	12.6
Green Ext Time (p_c), s	1.0	1.1	7.4	7.7

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	396	78	99	499	3	95	2	146	3	1	5
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	182.4	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	125	971	192	692	1189	7	330	3	233	190	40	202
Arrive On Green	0.00	1.00	1.00	0.21	0.21	0.21	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	858	1511	299	882	1851	10	1404	20	1567	1220	271	1353
Grp Volume(v), veh/h	0	0	515	108	0	545	103	0	161	3	0	6
Grp Sat Flow(s),veh/h/ln	858	0	1810	882	0	1861	1404	0	1586	1220	0	1624
Q Serve(g_s), s	0.0	0.0	0.0	5.8	0.0	14.7	3.9	0.0	5.5	0.1	0.0	0.2
Cycle Q Clear(g_c), s	0.0	0.0	0.0	5.8	0.0	14.7	4.1	0.0	5.5	5.7	0.0	0.2
Prop In Lane	1.00		0.17	1.00		0.01	1.00		0.99	1.00		0.83
Lane Grp Cap(c), veh/h	125	0	1163	692	0	1196	330	0	236	190	0	242
V/C Ratio(X)	0.00	0.00	0.44	0.16	0.00	0.46	0.31	0.00	0.68	0.02	0.00	0.02
Avail Cap(c_a), veh/h	125	0	1163	692	0	1196	633	0	579	453	0	592
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.85	0.87	0.00	0.87	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	10.4	0.0	13.9	22.7	0.0	23.2	25.9	0.0	20.9
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.4	0.0	1.1	0.5	0.0	3.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.3	1.1	0.0	7.6	1.3	0.0	2.2	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	1.0	10.8	0.0	15.0	23.2	0.0	26.6	25.9	0.0	21.0
Lane Grp LOS			A	B		B	C		C	C		C
Approach Vol, veh/h		515			653			264			9	
Approach Delay, s/veh		1.0			14.3			25.3			22.6	
Approach LOS		A			B			C			C	

Timer				
Assigned Phs	2	6	8	4
Phs Duration (G+Y+Rc), s	43.0	43.0	14.6	14.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	37.0	21.0	21.0
Max Q Clear Time (g_c+I1), s	2.0	16.7	7.5	7.7
Green Ext Time (p_c), s	8.6	7.3	1.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.6
HCM 2010 LOS	B

Notes

APPENDIX H

SIGNALIZED INTERSECTION CAPACITY ANALYSES

2030 NO-BUILD

AM PEAK HOUR
MID-DAY PEAK HOUR
PM PEAK HOUR

AM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	155	100	40	230	45	25	65	10	10	55	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.98		0.97	0.98		0.97
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	178.8	186.3	197.6	178.8	186.3	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	439	451	293	450	648	127	473	598	93	547	208	416
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1029	1054	684	1050	1512	296	1177	1569	243	1230	545	1090
Grp Volume(v), veh/h	250	0	277	43	0	299	27	0	82	11	0	180
Grp Sat Flow(s),veh/h/ln	1029	0	1737	1050	0	1808	1177	0	1812	1230	0	1636
Q Serve(g_s), s	13.8	0.0	6.8	1.8	0.0	7.1	1.0	0.0	1.8	0.4	0.0	4.8
Cycle Q Clear(g_c), s	21.0	0.0	6.8	8.7	0.0	7.1	5.8	0.0	1.8	2.2	0.0	4.8
Prop In Lane	1.00		0.39	1.00		0.16	1.00		0.13	1.00		0.67
Lane Grp Cap(c), veh/h	439	0	744	450	0	775	473	0	691	547	0	623
V/C Ratio(X)	0.57	0.00	0.37	0.10	0.00	0.39	0.06	0.00	0.12	0.02	0.00	0.29
Avail Cap(c_a), veh/h	554	0	938	567	0	976	473	0	691	547	0	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	0.0	12.2	15.2	0.0	12.3	15.6	0.0	12.6	13.4	0.0	13.6
Incr Delay (d2), s/veh	1.2	0.0	0.3	0.1	0.0	0.3	0.2	0.0	0.4	0.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.3	0.0	2.5	0.4	0.0	2.7	0.3	0.0	0.8	0.1	0.0	1.9
Lane Grp Delay (d), s/veh	20.7	0.0	12.6	15.3	0.0	12.6	15.8	0.0	13.0	13.4	0.0	14.7
Lane Grp LOS	C		B	B		B	B		B	B		B
Approach Vol, veh/h		527			342			109			191	
Approach Delay, s/veh		16.4			13.0			13.7			14.6	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	33.0	33.0	30.0	30.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	34.0	24.0	24.0
Max Q Clear Time (g_c+I1), s	23.0	10.7	7.8	6.8
Green Ext Time (p_c), s	3.4	4.5	0.4	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
6: McCLELLAN AVE & WRIGHT ST.

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	425	65	95	195	0	20	5	90	0	0	5
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	180.5	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	74	594	91	248	660	0	689	30	592	0	0	556
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.00	0.39	0.39	0.39	0.00	0.00	0.39
Sat Flow, veh/h	4	1524	232	849	1693	0	1405	77	1518	0	0	1425
Grp Volume(v), veh/h	538	0	0	103	212	0	22	0	103	0	0	5
Grp Sat Flow(s),veh/h/ln	1760	0	0	849	1693	0	1405	0	1595	0	0	1425
Q Serve(g_s), s	0.0	0.0	0.0	6.1	4.4	0.0	0.5	0.0	2.1	0.0	0.0	0.1
Cycle Q Clear(g_c), s	13.4	0.0	0.0	19.5	4.4	0.0	0.6	0.0	2.1	0.0	0.0	0.1
Prop In Lane	0.01		0.13	1.00		0.00	1.00		0.95	0.00		1.00
Lane Grp Cap(c), veh/h	759	0	0	248	660	0	689	0	622	0	0	556
V/C Ratio(X)	0.71	0.00	0.00	0.42	0.32	0.00	0.03	0.00	0.17	0.00	0.00	0.01
Avail Cap(c_a), veh/h	759	0	0	248	660	0	689	0	622	0	0	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	0.0	21.9	10.6	0.0	9.5	0.0	9.9	0.0	0.0	9.3
Incr Delay (d2), s/veh	3.1	0.0	0.0	1.1	0.3	0.0	0.1	0.0	0.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	5.3	0.0	0.0	1.2	1.5	0.0	0.2	0.0	0.8	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	16.5	0.0	0.0	23.0	10.9	0.0	9.6	0.0	10.5	0.0	0.0	9.3
Lane Grp LOS	B			C	B		A		B			A
Approach Vol, veh/h		538			315			125			5	
Approach Delay, s/veh		16.5			14.9			10.4			9.3	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	15.4	21.5	4.1	2.1
Green Ext Time (p_c), s	1.5	0.0	0.5	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	165	70	50	55	10	25	235	260	20	100	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	590	322	137	391	406	74	582	179	199	144	586	27
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1264	826	351	1116	1041	191	1280	459	509	864	1502	69
Grp Volume(v), veh/h	39	0	255	54	0	71	27	0	538	22	0	114
Grp Sat Flow(s),veh/h/ln	1264	0	1177	1116	0	1232	1280	0	968	864	0	1571
Q Serve(g_s), s	1.0	0.0	8.4	2.0	0.0	1.9	0.7	0.0	19.5	0.0	0.0	2.4
Cycle Q Clear(g_c), s	2.9	0.0	8.4	10.4	0.0	1.9	3.1	0.0	19.5	19.5	0.0	2.4
Prop In Lane	1.00		0.30	1.00		0.15	1.00		0.53	1.00		0.04
Lane Grp Cap(c), veh/h	590	0	459	391	0	480	582	0	378	144	0	613
V/C Ratio(X)	0.07	0.00	0.56	0.14	0.00	0.15	0.05	0.00	1.42	0.15	0.00	0.19
Avail Cap(c_a), veh/h	590	0	459	391	0	480	582	0	378	144	0	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.8	0.0	11.9	15.9	0.0	9.9	11.0	0.0	15.3	25.0	0.0	10.0
Incr Delay (d2), s/veh	0.2	0.0	4.8	0.7	0.0	0.6	0.2	0.0	206.1	2.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	2.7	0.6	0.0	0.6	0.2	0.0	25.4	0.3	0.0	0.8
Lane Grp Delay (d), s/veh	11.0	0.0	16.7	16.7	0.0	10.5	11.2	0.0	221.3	27.2	0.0	10.7
Lane Grp LOS	B		B	B		B	B		F	C		B
Approach Vol, veh/h		294			125			565			136	
Approach Delay, s/veh		15.9			13.2			211.3			13.4	
Approach LOS		B			B			F			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	10.4	12.4	21.5	21.5
Green Ext Time (p_c), s	1.2	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	175	60	25	125	40	70	190	105	25	55	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.85	1.00	0.79	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	184.4	184.4	188.1	188.1	184.9	191.9	183.5	174.9	194.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	447	475	162	379	479	152	746	477	262	617	687	0
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	1.00	1.00	0.97	0.50	0.50	0.00
Sat Flow, veh/h	1209	1329	455	1106	1343	424	1348	953	525	1037	1373	0
Grp Volume(v), veh/h	16	0	255	27	0	179	76	0	321	27	60	0
Grp Sat Flow(s),veh/h/ln	1209	0	1784	1106	0	1767	1348	0	1478	1037	1373	0
Q Serve(g_s), s	0.7	0.0	7.5	1.3	0.0	5.1	0.2	0.0	0.3	0.9	1.6	0.0
Cycle Q Clear(g_c), s	5.8	0.0	7.5	8.9	0.0	5.1	1.8	0.0	0.3	1.2	1.6	0.0
Prop In Lane	1.00		0.25	1.00		0.24	1.00		0.36	1.00		0.00
Lane Grp Cap(c), veh/h	447	0	637	379	0	631	746	0	739	617	687	0
V/C Ratio(X)	0.04	0.00	0.40	0.07	0.00	0.28	0.10	0.00	0.43	0.04	0.09	0.00
Avail Cap(c_a), veh/h	447	0	637	379	0	631	746	0	739	617	687	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	17.0	20.2	0.0	16.2	0.0	0.0	0.2	9.1	9.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.9	0.4	0.0	1.1	0.3	0.0	1.9	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	3.5	0.4	0.0	2.3	0.1	0.0	0.4	0.2	0.5	0.0
Lane Grp Delay (d), s/veh	18.3	0.0	18.9	20.6	0.0	17.3	0.3	0.0	2.0	9.3	9.4	0.0
Lane Grp LOS	B		B	C		B	A		A	A	A	
Approach Vol, veh/h		271			206			397			87	
Approach Delay, s/veh		18.8			17.7			1.7			9.4	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	9.5	10.9	3.8	3.6
Green Ext Time (p_c), s	1.8	1.7	2.2	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	70	80	10	80	5	125	80	10	10	75	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.68	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	168.1	186.3	190.0	158.3	186.3	197.6	186.3	183.6	197.6	186.3	188.9	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	493	156	178	426	347	20	623	325	41	618	346	139
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1168	782	895	1032	1744	100	1264	1078	136	1284	1146	461
Grp Volume(v), veh/h	22	0	163	11	0	92	136	0	98	11	0	115
Grp Sat Flow(s),veh/h/ln	1168	0	1677	1032	0	1844	1264	0	1214	1284	0	1608
Q Serve(g_s), s	0.4	0.0	2.0	0.2	0.0	1.0	2.1	0.0	1.4	0.2	0.0	1.3
Cycle Q Clear(g_c), s	1.4	0.0	2.0	2.2	0.0	1.0	3.4	0.0	1.4	1.6	0.0	1.3
Prop In Lane	1.00		0.53	1.00		0.05	1.00		0.11	1.00		0.29
Lane Grp Cap(c), veh/h	493	0	334	426	0	367	623	0	366	618	0	485
V/C Ratio(X)	0.04	0.00	0.49	0.03	0.00	0.25	0.22	0.00	0.27	0.02	0.00	0.24
Avail Cap(c_a), veh/h	1477	0	1746	1295	0	1921	2102	0	1787	2120	0	2366
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.4	0.0	8.3	9.2	0.0	7.8	7.4	0.0	6.2	6.8	0.0	6.1
Incr Delay (d2), s/veh	0.0	0.0	1.1	0.0	0.0	0.4	0.2	0.0	0.4	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	0.6	0.0	0.0	0.3	0.5	0.0	0.3	0.0	0.0	0.4
Lane Grp Delay (d), s/veh	8.5	0.0	9.4	9.3	0.0	8.2	7.5	0.0	6.6	6.8	0.0	6.4
Lane Grp LOS	A		A	A		A	A		A	A		A
Approach Vol, veh/h		185			103			234			126	
Approach Delay, s/veh		9.3			8.3			7.1			6.4	
Approach LOS		A			A			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	10.4	10.4	12.8	12.8
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	24.2	24.2	34.2	34.2
Max Q Clear Time (g_c+I1), s	4.0	4.2	5.4	3.6
Green Ext Time (p_c), s	1.0	1.0	1.5	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	7.8
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	20	25	5	65	30	40	115	5	0	115	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.99		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	0.82	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	188.2	195.7	194.6	188.6	194.6	187.2	187.2	191.0	184.4	183.1	188.1
Lanes	1	1	1	0	1	0	1	1	0	1	1	0
Cap, veh/h	632	815	581	72	526	232	566	674	27	120	542	212
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.42	0.43	0.43	0.42	0.00	0.43	0.42
Sat Flow, veh/h	1292	1882	1340	22	1213	536	1205	1555	62	1242	1250	490
Grp Volume(v), veh/h	33	22	27	109	0	0	43	0	130	0	0	174
Grp Sat Flow(s),veh/h/ln	1292	1882	1340	1771	0	0	1205	0	1617	1242	0	1740
Q Serve(g_s), s	0.9	0.4	0.7	0.0	0.0	0.0	1.4	0.0	3.0	0.0	0.0	3.8
Cycle Q Clear(g_c), s	3.2	0.4	0.7	2.2	0.0	0.0	5.2	0.0	3.0	0.0	0.0	3.8
Prop In Lane	1.00		1.00	0.05		0.30	1.00		0.04	1.00		0.28
Lane Grp Cap(c), veh/h	632	815	581	830	0	0	566	0	701	120	0	754
V/C Ratio(X)	0.05	0.03	0.05	0.13	0.00	0.00	0.08	0.00	0.19	0.00	0.00	0.23
Avail Cap(c_a), veh/h	632	815	581	830	0	0	566	0	701	120	0	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	11.2	9.7	9.8	10.4	0.0	0.0	12.4	0.0	10.5	0.0	0.0	10.8
Incr Delay (d2), s/veh	0.2	0.1	0.2	0.3	0.0	0.0	0.3	0.0	0.6	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.2	0.2	0.9	0.0	0.0	0.4	0.0	1.2	0.0	0.0	1.6
Lane Grp Delay (d), s/veh	11.4	9.8	10.0	10.7	0.0	0.0	12.6	0.0	11.1	0.0	0.0	11.5
Lane Grp LOS	B	A	A	B			B		B			B
Approach Vol, veh/h		82			109			173			174	
Approach Delay, s/veh		10.5			10.7			11.5			11.5	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	5.2	4.2	7.2	5.8
Green Ext Time (p_c), s	0.7	0.7	1.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	60	45	5	140	5	65	140	5	0	125	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	185.9	192.8	188.1	184.4	188.1	188.1	188.1	191.9	185.3	180.9	189.0
Lanes	1	1	0	0	1	0	1	1	0	1	1	0
Cap, veh/h	324	200	151	92	356	11	865	799	26	168	891	177
Arrive On Green	0.20	0.20	0.18	0.20	0.20	0.18	0.61	0.61	0.58	0.00	0.61	0.58
Sat Flow, veh/h	1223	976	736	26	1739	56	1226	1313	43	1218	1465	291
Grp Volume(v), veh/h	22	0	114	162	0	0	71	0	157	0	0	163
Grp Sat Flow(s),veh/h/ln	1223	0	1712	1821	0	0	1226	0	1356	1218	0	1756
Q Serve(g_s), s	0.7	0.0	2.4	0.0	0.0	0.0	1.1	0.0	2.2	0.0	0.0	1.7
Cycle Q Clear(g_c), s	4.0	0.0	2.4	3.3	0.0	0.0	2.9	0.0	2.2	0.0	0.0	1.7
Prop In Lane	1.00		0.43	0.03		0.03	1.00		0.03	1.00		0.17
Lane Grp Cap(c), veh/h	324	0	350	459	0	0	865	0	825	168	0	1068
V/C Ratio(X)	0.07	0.00	0.33	0.35	0.00	0.00	0.08	0.00	0.19	0.00	0.00	0.15
Avail Cap(c_a), veh/h	818	0	1042	1189	0	0	865	0	825	168	0	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	14.7	14.8	0.0	0.0	4.2	0.0	3.7	0.0	0.0	3.7
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.5	0.0	0.0	0.2	0.0	0.5	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	0.9	1.4	0.0	0.0	0.3	0.0	0.6	0.0	0.0	0.6
Lane Grp Delay (d), s/veh	16.7	0.0	15.2	15.3	0.0	0.0	4.4	0.0	4.2	0.0	0.0	4.0
Lane Grp LOS	B		B	B			A		A			A
Approach Vol, veh/h		136			162			228			163	
Approach Delay, s/veh		15.4			15.3			4.3			4.0	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	12.7	12.7	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	6.0	5.3	4.9	3.7
Green Ext Time (p_c), s	1.1	1.1	1.5	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Notes

HCM 2010 Signalized Intersection Summary
30: Front St & Hewitt Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	10	25	10	20	100	10	5	75	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	182.4	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	224	224	190	159	372	136	153	725	69	70	796	103
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	453	654	554	281	1085	395	194	1492	142	34	1639	211
Grp Volume(v), veh/h	33	0	0	49	0	0	142	0	0	98	0	0
Grp Sat Flow(s),veh/h/ln	1661	0	0	1762	0	0	1827	0	0	1884	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.2	0.0	0.0	2.9	0.0	0.0	2.0	0.0	0.0
Prop In Lane	0.33		0.33	0.22		0.22	0.15		0.08	0.05		0.11
Lane Grp Cap(c), veh/h	638	0	0	667	0	0	947	0	0	969	0	0
V/C Ratio(X)	0.05	0.00	0.00	0.07	0.00	0.00	0.15	0.00	0.00	0.10	0.00	0.00
Avail Cap(c_a), veh/h	638	0	0	667	0	0	947	0	0	969	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	15.5	0.0	0.0	10.0	0.0	0.0	9.8	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.6	0.0	0.0	1.2	0.0	0.0	0.8	0.0	0.0
Lane Grp Delay (d), s/veh	15.5	0.0	0.0	15.7	0.0	0.0	10.3	0.0	0.0	10.0	0.0	0.0
Lane Grp LOS	B			B			B			A		
Approach Vol, veh/h		33			49			142			98	
Approach Delay, s/veh		15.5			15.7			10.3			10.0	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	2.8	3.2	4.9	4.0
Green Ext Time (p_c), s	0.3	0.3	1.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.6
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
31: N 3rd St/N 3 rd St & Hewitt Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	20	10	10	20	20	5	225	15	10	190	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	102	394	178	142	276	237	57	869	56	69	864	44
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	128	1150	520	234	805	692	9	1788	115	30	1779	91
Grp Volume(v), veh/h	38	0	0	55	0	0	266	0	0	229	0	0
Grp Sat Flow(s),veh/h/ln	1798	0	0	1731	0	0	1912	0	0	1901	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.4	0.0	0.0	5.8	0.0	0.0	4.9	0.0	0.0
Prop In Lane	0.13		0.29	0.20		0.40	0.02		0.06	0.05		0.05
Lane Grp Cap(c), veh/h	675	0	0	655	0	0	981	0	0	977	0	0
V/C Ratio(X)	0.06	0.00	0.00	0.08	0.00	0.00	0.27	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	675	0	0	655	0	0	981	0	0	977	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	15.6	0.0	0.0	10.7	0.0	0.0	10.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.7	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	0.0	0.6	0.0	0.0	2.5	0.0	0.0	2.1	0.0	0.0
Lane Grp Delay (d), s/veh	15.6	0.0	0.0	15.8	0.0	0.0	11.4	0.0	0.0	11.1	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		38			55			266			229	
Approach Delay, s/veh		15.6			15.8			11.4			11.1	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.0	3.4	7.8	6.9
Green Ext Time (p_c), s	0.4	0.4	2.9	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	20	15	5	35	330	0	0	225	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	0.0	186.3	0.0	186.3	186.3	197.6	178.8	186.3	0.0	0.0	186.3	197.6
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	333	0	420	242	76	799	1221	0	0	1104	99
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.66	0.66	0.00	0.00	1.00	1.00
Sat Flow, veh/h	0	1863	0	1774	1358	424	1062	1863	0	0	1684	151
Grp Volume(v), veh/h	0	0	0	22	0	21	38	359	0	0	0	267
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	0	1782	1062	1863	0	0	0	1836
Q Serve(g_s), s	0.0	0.0	0.0	0.7	0.0	0.7	0.9	5.8	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.7	0.0	0.7	0.9	5.8	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	1.00		0.24	1.00		0.00	0.00		0.08
Lane Grp Cap(c), veh/h	0	333	0	420	0	318	799	1221	0	0	0	1204
V/C Ratio(X)	0.00	0.00	0.00	0.05	0.00	0.07	0.05	0.29	0.00	0.00	0.00	0.22
Avail Cap(c_a), veh/h	0	333	0	420	0	318	799	1221	0	0	0	1204
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	23.9	0.0	23.9	4.3	5.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.4	0.1	0.6	0.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.3	0.0	0.3	0.2	2.1	0.0	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	24.1	0.0	24.3	4.4	5.8	0.0	0.0	0.0	0.4
Lane Grp LOS				C		C	A	A				A
Approach Vol, veh/h		0			43			397			267	
Approach Delay, s/veh		0.0			24.2			5.6			0.4	
Approach LOS					C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	18.3	18.3	51.7	51.7
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	12.5	12.5	45.9	45.9
Max Q Clear Time (g_c+I1), s	0.0	2.7	7.8	2.0
Green Ext Time (p_c), s	0.0	0.1	4.2	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	4.8
HCM 2010 LOS	A

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	25	185	35	25	70	125	120	385	60	40	575	105
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	186.0	191.0	190.0	190.0	193.8	193.7	186.3	186.3	191.8	184.4	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	110	207	39	117	84	149	203	1807	768	201	1789	760
Arrive On Green	0.16	0.14	0.14	0.16	0.14	0.14	0.11	0.49	0.49	0.11	0.49	0.49
Sat Flow, veh/h	1080	1522	288	1159	615	1093	1845	3725	1583	1827	3688	1568
Grp Volume(v), veh/h	27	0	239	38	0	300	190	611	95	49	710	130
Grp Sat Flow(s),veh/h/ln	1080	0	1810	1159	0	1707	1845	1863	1583	1827	1844	1568
Q Serve(g_s), s	1.5	0.0	10.5	1.9	0.0	10.9	8.2	8.1	2.6	2.0	9.8	3.7
Cycle Q Clear(g_c), s	12.4	0.0	10.5	12.4	0.0	10.9	8.2	8.1	2.6	2.0	9.8	3.7
Prop In Lane	1.00		0.16	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	0	247	117	0	233	203	1807	768	201	1789	760
V/C Ratio(X)	0.24	0.00	0.97	0.32	0.00	1.29	0.94	0.34	0.12	0.24	0.40	0.17
Avail Cap(c_a), veh/h	110	0	247	117	0	233	203	1807	768	201	1789	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	0.0	34.4	39.3	0.0	34.6	35.3	12.7	11.3	32.6	13.1	11.6
Incr Delay (d2), s/veh	1.1	0.0	48.6	1.6	0.0	158.7	48.4	0.5	0.3	2.9	0.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	8.1	0.8	0.0	14.9	6.3	3.3	0.9	1.0	3.9	1.3
Lane Grp Delay (d), s/veh	40.6	0.0	83.0	40.9	0.0	193.2	83.8	13.2	11.6	35.4	13.8	12.1
Lane Grp LOS	D		F	D		F	F	B	B	D	B	B
Approach Vol, veh/h		266			338			896			889	
Approach Delay, s/veh		78.7			176.1			28.0			14.7	
Approach LOS		E			F			C			B	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		20.0			20.0		15.0	45.0		15.0	45.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		10.9			10.9		8.8	38.8		8.8	38.8	
Max Q Clear Time (g_c+I1), s		14.4			14.4		10.2	10.1		4.0	11.8	
Green Ext Time (p_c), s		0.0			0.0		0.0	6.4		0.0	6.3	

Intersection Summary	
HCM 2010 Ctrl Delay	49.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	50	55	40	35	10	25	1035	70	5	405	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	469	242	269	408	417	121	527	1907	129	246	1821	202
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1351	807	897	1273	1390	402	904	3451	233	464	3296	365
Grp Volume(v), veh/h	76	0	114	43	0	49	27	607	594	5	248	241
Grp Sat Flow(s),veh/h/ln	1351	0	1704	1273	0	1792	904	1863	1822	464	1863	1798
Q Serve(g_s), s	3.4	0.0	4.0	2.1	0.0	1.6	1.3	17.3	17.3	0.6	5.5	5.5
Cycle Q Clear(g_c), s	5.0	0.0	4.0	6.1	0.0	1.6	6.8	17.3	17.3	17.9	5.5	5.5
Prop In Lane	1.00		0.53	1.00		0.22	1.00		0.13	1.00		0.20
Lane Grp Cap(c), veh/h	469	0	511	408	0	538	527	1029	1006	246	1029	994
V/C Ratio(X)	0.16	0.00	0.22	0.11	0.00	0.09	0.05	0.59	0.59	0.02	0.24	0.24
Avail Cap(c_a), veh/h	469	0	511	408	0	538	527	1029	1006	246	1029	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	21.0	23.3	0.0	20.2	11.0	11.9	11.9	17.8	9.2	9.3
Incr Delay (d2), s/veh	0.7	0.0	1.0	0.5	0.0	0.3	0.2	2.5	2.5	0.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	1.8	0.7	0.0	0.7	0.3	7.5	7.3	0.1	2.3	2.2
Lane Grp Delay (d), s/veh	22.7	0.0	22.0	23.8	0.0	20.5	11.2	14.4	14.4	18.0	9.8	9.8
Lane Grp LOS	C		C	C		C	B	B	B	B	A	A
Approach Vol, veh/h		190			92			1228			494	
Approach Delay, s/veh		22.3			22.0			14.3			9.9	
Approach LOS		C			C			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	50.0	50.0
Change Period (Y+Rc), s	6.0	6.0	5.8	5.8
Max Green Setting (Gmax), s	24.0	24.0	44.2	44.2
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	0	0	310	545	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	16
Total Lost time (s)				7.7	6.0	
Lane Util. Factor				0.95	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3539	3433	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3539	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	337	592	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	337	592	0
Turn Type				NA	NA	
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				32.3	34.0	
Effective Green, g (s)				32.3	34.0	
Actuated g/C Ratio				0.40	0.42	
Clearance Time (s)				7.7	6.0	
Lane Grp Cap (vph)				1428	1459	
v/s Ratio Prot				c0.10	c0.17	
v/s Ratio Perm						
v/c Ratio				0.24	0.41	
Uniform Delay, d1				15.7	16.0	
Progression Factor				1.00	0.07	
Incremental Delay, d2				0.4	0.8	
Delay (s)				16.1	2.0	
Level of Service				B	A	
Approach Delay (s)	0.0			16.1	2.0	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Volume (vph)	0	475	0	0	0	0	0	0	0	545
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	12	16	16	16	16	13	16	16	16
Total Lost time (s)		7.7								6.0
Lane Util. Factor		0.95								0.88
Frt		1.00								0.85
Flt Protected		1.00								1.00
Satd. Flow (prot)		3539								3158
Flt Permitted		1.00								1.00
Satd. Flow (perm)		3539								3158
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	516	0	0	0	0	0	0	0	592
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	516	0	0	0	0	0	0	0	592
Turn Type		NA								custom
Protected Phases		1								
Permitted Phases										2
Actuated Green, G (s)		32.3								34.0
Effective Green, g (s)		32.3								34.0
Actuated g/C Ratio		0.40								0.42
Clearance Time (s)		7.7								6.0
Lane Grp Cap (vph)		1428								1342
v/s Ratio Prot		c0.15								
v/s Ratio Perm										c0.19
v/c Ratio		0.36								0.44
Uniform Delay, d1		16.6								16.3
Progression Factor		1.00								2.38
Incremental Delay, d2		0.7								1.0
Delay (s)		17.4								39.7
Level of Service		B								D
Approach Delay (s)		17.4			0.0		0.0		39.7	
Approach LOS		B			A		A		D	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	95	345	30	75	290	55	50	415	140	85	170	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	184.4	176.9	195.6
Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Cap, veh/h	491	1522	133	474	1375	259	466	1082	362	306	998	369
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.41	0.38	0.38	0.41	0.38
Sat Flow, veh/h	1003	3377	296	973	3050	574	1116	2671	892	804	2462	911
Grp Volume(v), veh/h	103	206	202	82	191	184	54	313	290	92	131	125
Grp Sat Flow(s),veh/h/ln	1003	1863	1810	973	1863	1761	1116	1863	1701	804	1769	1604
Q Serve(g_s), s	4.9	4.8	4.8	4.0	4.4	4.5	2.4	8.4	8.7	6.8	3.3	3.6
Cycle Q Clear(g_c), s	9.4	4.8	4.8	8.8	4.4	4.5	6.0	8.4	8.7	15.5	3.3	3.6
Prop In Lane	1.00		0.16	1.00		0.33	1.00		0.52	1.00		0.57
Lane Grp Cap(c), veh/h	491	840	816	474	840	794	466	755	689	306	717	650
V/C Ratio(X)	0.21	0.25	0.25	0.17	0.23	0.23	0.12	0.42	0.42	0.30	0.18	0.19
Avail Cap(c_a), veh/h	491	840	816	474	840	794	466	755	689	306	717	650
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	11.9	11.9	14.6	11.8	11.8	16.8	14.9	15.4	22.1	13.4	13.8
Incr Delay (d2), s/veh	1.0	0.7	0.7	0.8	0.6	0.7	0.5	1.7	1.9	2.5	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	2.0	2.0	1.0	1.9	1.8	0.7	3.7	3.6	1.5	1.4	1.4
Lane Grp Delay (d), s/veh	15.7	12.6	12.6	15.4	12.4	12.5	17.3	16.6	17.3	24.6	14.0	14.5
Lane Grp LOS	B	B	B	B	B	B	B	B	B	C	B	B
Approach Vol, veh/h		511			457			657			348	
Approach Delay, s/veh		13.2			13.0			16.9			17.0	
Approach LOS		B			B			B			B	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		37.7			37.7			32.4			32.4	
Change Period (Y+Rc), s		6.1			6.1			6.0			6.0	
Max Green Setting (Gmax), s		31.6			31.5			26.4			26.4	
Max Q Clear Time (g_c+I1), s		11.4			10.8			10.7			17.5	
Green Ext Time (p_c), s		5.1			5.1			3.7			2.8	

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE & US 41

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	565	230	0	375	0	0	140	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			2%			0%			6%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3397	1555		1781			1771	1413
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3397	1555		1781			1771	1413
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	614	250	0	408	0	0	152	65
RTOR Reduction (vph)	0	0	0	0	0	140	0	0	0	0	0	38
Lane Group Flow (vph)	0	0	0	0	614	110	0	408	0	0	152	27
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	2%	6%	11%	2%	5%	2%	2%	2%	4%	2%	2%	9%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1490	682		819			726	579
v/s Ratio Prot					c0.18			c0.23			0.09	
v/s Ratio Perm						0.07						0.02
v/c Ratio					0.41	0.16		0.50			0.21	0.05
Uniform Delay, d1					15.4	13.6		15.1			15.2	14.2
Progression Factor					1.00	1.00		0.10			1.00	1.00
Incremental Delay, d2					0.8	0.5		2.0			0.7	0.1
Delay (s)					16.2	14.1		3.5			15.9	14.3
Level of Service					B	B		A			B	B
Approach Delay (s)		0.0			15.6			3.5			15.4	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
110: McCLELLAN AVE/McCLELLEN AVE & US 41

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	485	110	0	0	0	0	375	155	0	140	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	20	20	20	20	20	20
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2006					2359	2006		2359	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2006					2359	2006		2359	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	527	120	0	0	0	0	408	168	0	152	0
RTOR Reduction (vph)	0	0	67	0	0	0	0	0	102	0	0	0
Lane Group Flow (vph)	0	527	53	0	0	0	0	408	66	0	152	0
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1552	880					928	789		1046	
v/s Ratio Prot		c0.15						c0.17			0.06	
v/s Ratio Perm			0.03						0.03			
v/c Ratio		0.34	0.06					0.44	0.08		0.15	
Uniform Delay, d1		14.8	12.9					17.8	15.2		13.2	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		0.6	0.1					1.5	0.2		0.3	
Delay (s)		15.4	13.1					19.3	15.4		0.3	
Level of Service		B	B					B	B		A	
Approach Delay (s)		15.0			0.0			18.2			0.3	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	85	115	15	55	10	105	90	25	5	70	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.79	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	177.9	164.7	196.6	199.6	193.0	199.6	195.6	183.9	195.6
Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Cap, veh/h	542	200	271	369	427	78	445	368	92	74	627	260
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.33	0.52	0.52	0.50	0.52	0.52	0.50
Sat Flow, veh/h	1334	570	775	1106	1219	223	691	712	179	22	1213	503
Grp Volume(v), veh/h	22	0	217	16	0	71	239	0	0	114	0	0
Grp Sat Flow(s),veh/h/ln	1334	0	1345	1106	0	1442	1582	0	0	1739	0	0
Q Serve(g_s), s	0.7	0.0	7.5	0.7	0.0	2.0	2.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	7.5	8.2	0.0	2.0	4.7	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.58	1.00		0.15	0.48		0.11	0.04		0.29
Lane Grp Cap(c), veh/h	542	0	471	369	0	505	906	0	0	961	0	0
V/C Ratio(X)	0.04	0.00	0.46	0.04	0.00	0.14	0.26	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	542	0	471	369	0	505	906	0	0	961	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.3	0.0	15.1	18.3	0.0	13.4	8.1	0.0	0.0	7.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	3.2	0.2	0.0	0.6	0.7	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	2.7	0.2	0.0	0.7	1.8	0.0	0.0	0.8	0.0	0.0
Lane Grp Delay (d), s/veh	14.4	0.0	18.3	18.5	0.0	14.0	8.8	0.0	0.0	7.8	0.0	0.0
Lane Grp LOS	B		B	B		B	A			A		
Approach Vol, veh/h		239			87			239			114	
Approach Delay, s/veh		18.0			14.8			8.8			7.8	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	35.0	35.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	20.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	9.5	10.2	6.7	4.0
Green Ext Time (p_c), s	1.0	1.0	1.4	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	60	40	50	80	70	80	130	115	60	125	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	178.8	178.8	197.6	178.8	178.8	197.6	178.8	178.8	197.6
Lanes	0	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	73	183	115	268	148	129	823	537	476	705	1053	39
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	29	1080	681	1216	875	765	1193	875	776	1064	1714	63
Grp Volume(v), veh/h	113	0	0	54	0	163	87	0	266	65	0	141
Grp Sat Flow(s),veh/h/ln	1789	0	0	1216	0	1640	1193	0	1651	1064	0	1777
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	5.1	1.8	0.0	4.1	1.7	0.0	1.8
Cycle Q Clear(g_c), s	3.1	0.0	0.0	5.4	0.0	5.1	3.7	0.0	4.1	5.8	0.0	1.8
Prop In Lane	0.04		0.38	1.00		0.47	1.00		0.47	1.00		0.04
Lane Grp Cap(c), veh/h	371	0	0	268	0	278	823	0	1014	705	0	1091
V/C Ratio(X)	0.30	0.00	0.00	0.20	0.00	0.59	0.11	0.00	0.26	0.09	0.00	0.13
Avail Cap(c_a), veh/h	837	0	0	590	0	711	823	0	1014	705	0	1091
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	0.0	22.8	0.0	21.2	5.2	0.0	4.9	6.2	0.0	4.5
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.4	0.0	2.0	0.3	0.0	0.6	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	0.0	0.0	0.7	0.0	2.0	0.4	0.0	1.3	0.4	0.0	0.6
Lane Grp Delay (d), s/veh	20.8	0.0	0.0	23.1	0.0	23.2	5.5	0.0	5.5	6.5	0.0	4.7
Lane Grp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		113			217			353			206	
Approach Delay, s/veh		20.8			23.2			5.5			5.3	
Approach LOS		C			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	15.4	15.4	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	5.1	7.4	6.1	7.8
Green Ext Time (p_c), s	1.6	1.5	2.9	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	330	50	40	250	90	50	15	35	85	15	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	190.0	193.7	197.6	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Cap, veh/h	421	684	103	393	565	203	333	113	187	550	70	526
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1005	1581	238	967	1306	471	623	305	504	1340	189	1419
Grp Volume(v), veh/h	141	0	413	43	0	370	108	0	0	92	0	136
Grp Sat Flow(s),veh/h/ln	1005	0	1819	967	0	1776	1431	0	0	1340	0	1608
Q Serve(g_s), s	6.2	0.0	8.8	1.8	0.0	7.9	0.2	0.0	0.0	2.7	0.0	3.1
Cycle Q Clear(g_c), s	14.1	0.0	8.8	10.6	0.0	7.9	3.3	0.0	0.0	6.0	0.0	3.1
Prop In Lane	1.00		0.13	1.00		0.26	0.50		0.35	1.00		0.88
Lane Grp Cap(c), veh/h	421	0	786	393	0	768	633	0	0	550	0	596
V/C Ratio(X)	0.34	0.00	0.53	0.11	0.00	0.48	0.17	0.00	0.00	0.17	0.00	0.23
Avail Cap(c_a), veh/h	747	0	1377	707	0	1345	633	0	0	550	0	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	11.0	14.9	0.0	10.8	11.2	0.0	0.0	13.6	0.0	11.4
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.1	0.0	0.5	0.6	0.0	0.0	0.7	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	0.0	3.2	0.4	0.0	2.8	0.9	0.0	0.0	0.9	0.0	1.2
Lane Grp Delay (d), s/veh	16.3	0.0	11.6	15.0	0.0	11.2	11.7	0.0	0.0	14.2	0.0	12.3
Lane Grp LOS	B		B	B		B	B			B		B
Approach Vol, veh/h		554			413			108			228	
Approach Delay, s/veh		12.8			11.6			11.7			13.1	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	27.8	27.8	25.0	25.0
Change Period (Y+Rc), s	5.0	5.0	5.4	5.4
Max Green Setting (Gmax), s	40.0	40.0	19.6	19.6
Max Q Clear Time (g_c+I1), s	16.1	12.6	5.3	8.0
Green Ext Time (p_c), s	5.7	5.9	1.4	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
74: 7th St & MAGNETIC ST

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	85	35	15	55	25	20	335	65	5	85	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	199.6	195.1	199.6	194.6	190.8	194.6	200.6	196.6	200.6	194.6	190.8	194.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	60	467	186	118	402	163	75	777	147	71	920	0
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	0.50	0.50	0.49	1.00	1.00	0.00
Sat Flow, veh/h	20	1309	520	163	1125	458	42	1554	294	34	1841	0
Grp Volume(v), veh/h	135	0	0	103	0	0	457	0	0	97	0	0
Grp Sat Flow(s),veh/h/ln	1849	0	0	1746	0	0	1890	0	0	1875	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.0	0.0	2.7	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.04		0.28	0.16		0.26	0.05		0.16	0.05		0.00
Lane Grp Cap(c), veh/h	714	0	0	683	0	0	999	0	0	992	0	0
V/C Ratio(X)	0.19	0.00	0.00	0.15	0.00	0.00	0.46	0.00	0.00	0.10	0.00	0.00
Avail Cap(c_a), veh/h	714	0	0	683	0	0	999	0	0	992	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.7	0.0	0.0	15.4	0.0	0.0	11.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.5	0.0	0.0	1.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.6	0.0	0.0	1.2	0.0	0.0	5.0	0.0	0.0	0.1	0.0	0.0
Lane Grp Delay (d), s/veh	16.3	0.0	0.0	15.9	0.0	0.0	13.1	0.0	0.0	0.2	0.0	0.0
Lane Grp LOS	B			B			B			A		
Approach Vol, veh/h		135			103			457			97	
Approach Delay, s/veh		16.3			15.9			13.1			0.2	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	5.5	4.7	13.1	2.0
Green Ext Time (p_c), s	0.9	0.9	2.4	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
75: Washington St & 7th St

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	290	60	20	230	25	110	280	25	15	105	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	184.2	191.9	203.5
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	367	495	102	288	546	59	624	785	70	495	534	305
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1095	1498	309	997	1652	178	1200	1687	150	1033	1148	655
Grp Volume(v), veh/h	71	0	380	22	0	277	120	0	331	16	0	179
Grp Sat Flow(s),veh/h/ln	1095	0	1807	997	0	1830	1200	0	1836	1033	0	1803
Q Serve(g_s), s	2.9	0.0	9.4	1.0	0.0	6.3	3.5	0.0	6.2	0.5	0.0	3.1
Cycle Q Clear(g_c), s	9.2	0.0	9.4	10.4	0.0	6.3	6.6	0.0	6.2	6.8	0.0	3.1
Prop In Lane	1.00		0.17	1.00		0.10	1.00		0.08	1.00		0.36
Lane Grp Cap(c), veh/h	367	0	597	288	0	605	624	0	854	495	0	839
V/C Ratio(X)	0.19	0.00	0.64	0.08	0.00	0.46	0.19	0.00	0.39	0.03	0.00	0.21
Avail Cap(c_a), veh/h	722	0	1182	611	0	1198	624	0	854	495	0	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	15.0	19.4	0.0	14.0	10.4	0.0	9.2	11.4	0.0	8.4
Incr Delay (d2), s/veh	0.3	0.0	1.1	0.1	0.0	0.5	0.7	0.0	1.3	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	3.8	0.2	0.0	2.5	1.0	0.0	2.5	0.1	0.0	1.3
Lane Grp Delay (d), s/veh	17.8	0.0	16.1	19.5	0.0	14.5	11.0	0.0	10.5	11.5	0.0	9.0
Lane Grp LOS	B		B	B		B	B		B	B		A
Approach Vol, veh/h		451			299			451			195	
Approach Delay, s/veh		16.4			14.9			10.7			9.2	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	22.9	22.9	30.0	30.0
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	34.6	34.6	24.6	24.6
Max Q Clear Time (g_c+I1), s	11.4	12.4	8.6	8.8
Green Ext Time (p_c), s	4.3	4.3	3.2	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
76: Washington St & 5th St

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	255	25	15	170	5	35	10	35	5	10	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	199.6	186.3	193.7	197.6	186.3	186.3	197.6	186.3	178.8	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	650	861	84	546	958	26	559	123	424	526	389	177
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1199	1688	165	1070	1877	51	1389	367	1269	1349	1165	529
Grp Volume(v), veh/h	5	0	304	16	0	190	38	0	49	5	0	16
Grp Sat Flow(s),veh/h/ln	1199	0	1852	1070	0	1928	1389	0	1637	1349	0	1694
Q Serve(g_s), s	0.2	0.0	6.7	0.6	0.0	3.7	1.3	0.0	1.4	0.2	0.0	0.4
Cycle Q Clear(g_c), s	3.9	0.0	6.7	7.4	0.0	3.7	1.8	0.0	1.4	1.6	0.0	0.4
Prop In Lane	1.00		0.09	1.00		0.03	1.00		0.78	1.00		0.31
Lane Grp Cap(c), veh/h	650	0	945	546	0	983	559	0	547	526	0	566
V/C Ratio(X)	0.01	0.00	0.32	0.03	0.00	0.19	0.07	0.00	0.09	0.01	0.00	0.03
Avail Cap(c_a), veh/h	650	0	945	546	0	983	559	0	547	526	0	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.4	0.0	10.1	12.2	0.0	9.3	16.3	0.0	16.0	16.5	0.0	15.7
Incr Delay (d2), s/veh	0.0	0.0	0.9	0.1	0.0	0.4	0.2	0.0	0.3	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	2.9	0.2	0.0	1.6	0.5	0.0	0.6	0.1	0.0	0.2
Lane Grp Delay (d), s/veh	10.4	0.0	11.0	12.3	0.0	9.8	16.5	0.0	16.3	16.6	0.0	15.8
Lane Grp LOS	B		B	B		A	B		B	B		B
Approach Vol, veh/h		309			206			87			21	
Approach Delay, s/veh		10.9			10.0			16.4			15.9	
Approach LOS		B			A			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	41.2	41.2	28.8	28.8
Change Period (Y+Rc), s	5.5	5.5	5.4	5.4
Max Green Setting (Gmax), s	35.7	35.7	23.4	23.4
Max Q Clear Time (g_c+I1), s	8.7	9.4	3.8	3.6
Green Ext Time (p_c), s	3.0	3.0	0.4	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	175	35	10	125	30	25	105	15	20	115	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	1.00	1.00	0.99
Adj Sat Flow veh/h/ln	195.7	184.2	191.9	184.4	191.8	195.6	178.0	186.9	190.7	189.1	190.1	200.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	440	420	84	374	420	102	741	733	103	816	681	294
Arrive On Green	0.28	0.28	0.23	0.28	0.28	0.23	0.55	0.55	0.49	0.55	0.55	0.49
Sat Flow, veh/h	1262	1487	297	1128	1487	361	1144	1339	188	1270	1244	537
Grp Volume(v), veh/h	65	0	228	11	0	169	27	0	130	22	0	179
Grp Sat Flow(s),veh/h/ln	1262	0	1784	1128	0	1848	1144	0	1527	1270	0	1781
Q Serve(g_s), s	1.8	0.0	4.4	0.3	0.0	3.0	0.5	0.0	1.8	0.4	0.0	2.1
Cycle Q Clear(g_c), s	4.8	0.0	4.4	4.7	0.0	3.0	2.6	0.0	1.8	2.1	0.0	2.1
Prop In Lane	1.00		0.17	1.00		0.20	1.00		0.12	1.00		0.30
Lane Grp Cap(c), veh/h	440	0	504	374	0	522	741	0	835	816	0	974
V/C Ratio(X)	0.15	0.00	0.45	0.03	0.00	0.32	0.04	0.00	0.16	0.03	0.00	0.18
Avail Cap(c_a), veh/h	1325	0	1757	1167	0	1820	741	0	835	816	0	974
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.5	0.0	12.3	14.1	0.0	11.8	5.4	0.0	4.7	5.1	0.0	4.9
Incr Delay (d2), s/veh	0.2	0.0	0.6	0.0	0.0	0.4	0.1	0.0	0.4	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	1.6	0.1	0.0	1.1	0.1	0.0	0.6	0.1	0.0	0.8
Lane Grp Delay (d), s/veh	13.7	0.0	12.9	14.1	0.0	12.2	5.5	0.0	5.1	5.2	0.0	5.3
Lane Grp LOS	B		B	B		B	A		A	A		A
Approach Vol, veh/h		293			180			157			201	
Approach Delay, s/veh		13.1			12.3			5.1			5.3	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	15.1	15.1	26.0	26.0
Change Period (Y+Rc), s	5.7	5.7	5.7	5.7
Max Green Setting (Gmax), s	38.3	38.3	20.3	20.3
Max Q Clear Time (g_c+I1), s	6.8	6.7	4.6	4.1
Green Ext Time (p_c), s	1.9	1.9	1.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

Notes

HCM 2010 Signalized Intersection Summary
78: Washington St & 3rd St

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	95	50	0	85	30	25	130	5	20	100	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	197.6	178.8	178.8	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	262	209	110	124	220	79	823	1117	40	823	682	406
Arrive On Green	0.17	0.17	0.17	0.00	0.17	0.17	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1258	1197	628	1176	1256	451	1198	1788	63	1179	1091	650
Grp Volume(v), veh/h	65	0	157	0	0	125	27	0	146	22	0	174
Grp Sat Flow(s),veh/h/ln	1258	0	1824	1176	0	1707	1198	0	1851	1179	0	1741
Q Serve(g_s), s	2.8	0.0	4.5	0.0	0.0	3.8	0.6	0.0	1.9	0.4	0.0	2.4
Cycle Q Clear(g_c), s	6.6	0.0	4.5	0.0	0.0	3.8	3.0	0.0	1.9	2.3	0.0	2.4
Prop In Lane	1.00		0.34	1.00		0.26	1.00		0.03	1.00		0.37
Lane Grp Cap(c), veh/h	262	0	319	124	0	299	823	0	1156	823	0	1088
V/C Ratio(X)	0.25	0.00	0.49	0.00	0.00	0.42	0.03	0.00	0.13	0.03	0.00	0.16
Avail Cap(c_a), veh/h	524	0	699	369	0	654	823	0	1156	823	0	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	21.6	0.0	0.0	21.3	5.1	0.0	4.4	4.9	0.0	4.5
Incr Delay (d2), s/veh	0.5	0.0	1.2	0.0	0.0	0.9	0.1	0.0	0.2	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	0.0	1.9	0.0	0.0	1.5	0.1	0.0	0.6	0.1	0.0	0.8
Lane Grp Delay (d), s/veh	24.7	0.0	22.7	0.0	0.0	22.2	5.2	0.0	4.7	5.0	0.0	4.8
Lane Grp LOS	C		C			C	A		A	A		A
Approach Vol, veh/h		222			125			173			196	
Approach Delay, s/veh		23.3			22.2			4.7			4.9	
Approach LOS		C			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	15.9	15.9	42.0	42.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	22.2	22.2	36.2	36.2
Max Q Clear Time (g_c+I1), s	8.6	5.8	5.0	4.4
Green Ext Time (p_c), s	1.4	1.6	2.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
79: Washington St & Front St

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	25	65	0	0	0	85	215	5	0	165	25
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		0.97
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	186.3	178.8				197.6	186.3	197.6	197.6	186.3	197.6
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	346	283	527				0	0	0	0	0	0
Arrive On Green	0.35	0.35	0.35				0.97	0.97	0.97	0.00	0.00	0.00
Sat Flow, veh/h	997	816	1518				0	1817	39		-91385	-13784
Grp Volume(v), veh/h	60	0	71				0	0	239		0	206
Grp Sat Flow(s),veh/h/ln	1813	0	1518				0	0	1856		0	-105170
Q Serve(g_s), s	1.6	0.0	2.2				0.0	0.0	70.0		0.0	0.1
Cycle Q Clear(g_c), s	1.6	0.0	2.2				0.0	0.0	70.0		0.0	0.1
Prop In Lane	0.55		1.00				0.00		0.02			0.13
Lane Grp Cap(c), veh/h	629	0	527				0	0	0		0	-150
V/C Ratio(X)	0.10	0.00	0.13				0.00	0.00	0.00		0.00	-1.37
Avail Cap(c_a), veh/h	629	0	527				0	0	0		0	-31100
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	2.00		1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00		0.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	15.6				0.0	0.0	0.0		0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.5				0.0	0.0	0.0		0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	2.3				0.0	0.0	0.0		0.0	0.0
Lane Grp Delay (d), s/veh	15.7	0.0	16.2				0.0	0.0	0.0		0.0	0.0
Lane Grp LOS	B		B									
Approach Vol, veh/h		131						239			206	
Approach Delay, s/veh		16.0						0.0			0.0	
Approach LOS		B						A			A	

Timer												
Assigned Phs		4					5	2			6	
Phs Duration (G+Y+Rc), s		30.1					39.9	39.9			0.0	
Change Period (Y+Rc), s		5.8					5.8	5.8			5.8	
Max Green Setting (Gmax), s		24.3					7.6	34.1			20.7	
Max Q Clear Time (g_c+I1), s		4.2					0.0	72.0			0.0	
Green Ext Time (p_c), s		0.4					0.0	0.0			0.0	

Intersection Summary			
HCM 2010 Ctrl Delay			3.6
HCM 2010 LOS			A

Notes

MID-DAY PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	195	325	90	30	345	35	65	45	25	40	70	195
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.98		0.97	0.97		0.97
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	178.8	186.3	197.6	178.8	186.3	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	386	641	178	355	761	77	346	403	222	517	153	428
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	927	1402	389	896	1663	169	1068	1116	615	1231	424	1184
Grp Volume(v), veh/h	212	0	451	33	0	413	71	0	76	43	0	288
Grp Sat Flow(s),veh/h/ln	927	0	1791	896	0	1832	1068	0	1730	1231	0	1608
Q Serve(g_s), s	13.8	0.0	12.1	1.8	0.0	10.5	3.7	0.0	1.9	1.6	0.0	9.2
Cycle Q Clear(g_c), s	24.3	0.0	12.1	14.0	0.0	10.5	12.9	0.0	1.9	3.6	0.0	9.2
Prop In Lane	1.00		0.22	1.00		0.09	1.00		0.36	1.00		0.74
Lane Grp Cap(c), veh/h	386	0	819	355	0	838	346	0	626	517	0	582
V/C Ratio(X)	0.55	0.00	0.55	0.09	0.00	0.49	0.21	0.00	0.12	0.08	0.00	0.50
Avail Cap(c_a), veh/h	437	0	918	404	0	938	346	0	626	517	0	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	13.1	18.1	0.0	12.6	21.5	0.0	14.1	15.3	0.0	16.5
Incr Delay (d2), s/veh	1.2	0.0	0.6	0.1	0.0	0.5	1.3	0.0	0.4	0.3	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.0	0.0	4.6	0.4	0.0	4.0	1.0	0.0	0.8	0.5	0.0	3.8
Lane Grp Delay (d), s/veh	22.3	0.0	13.6	18.2	0.0	13.1	22.8	0.0	14.5	15.6	0.0	19.5
Lane Grp LOS	C		B	B		B	C		B	B		B
Approach Vol, veh/h		663			446			147			331	
Approach Delay, s/veh		16.4			13.4			18.5			19.0	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	36.4	36.4	30.0	30.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	34.0	24.0	24.0
Max Q Clear Time (g_c+I1), s	26.3	16.0	14.9	11.2
Green Ext Time (p_c), s	3.7	5.9	0.3	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
6: McCLELLAN AVE & WRIGHT ST.

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	390	60	100	430	0	40	5	110	0	0	5
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	180.5	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	74	594	90	279	660	0	689	25	596	0	0	556
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.00	0.39	0.39	0.39	0.00	0.00	0.39
Sat Flow, veh/h	4	1524	232	885	1693	0	1405	64	1529	0	0	1425
Grp Volume(v), veh/h	494	0	0	109	467	0	43	0	125	0	0	5
Grp Sat Flow(s),veh/h/ln	1760	0	0	885	1693	0	1405	0	1593	0	0	1425
Q Serve(g_s), s	0.0	0.0	0.0	5.9	11.6	0.0	1.0	0.0	2.6	0.0	0.0	0.1
Cycle Q Clear(g_c), s	11.9	0.0	0.0	17.8	11.6	0.0	1.1	0.0	2.6	0.0	0.0	0.1
Prop In Lane	0.01		0.13	1.00		0.00	1.00		0.96	0.00		1.00
Lane Grp Cap(c), veh/h	759	0	0	279	660	0	689	0	621	0	0	556
V/C Ratio(X)	0.65	0.00	0.00	0.39	0.71	0.00	0.06	0.00	0.20	0.00	0.00	0.01
Avail Cap(c_a), veh/h	759	0	0	279	660	0	689	0	621	0	0	556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	0.0	20.5	12.8	0.0	9.7	0.0	10.1	0.0	0.0	9.3
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.9	3.5	0.0	0.2	0.0	0.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.5	0.0	0.0	1.2	4.5	0.0	0.3	0.0	0.9	0.0	0.0	0.0
Lane Grp Delay (d), s/veh	14.9	0.0	0.0	21.4	16.3	0.0	9.8	0.0	10.8	0.0	0.0	9.3
Lane Grp LOS	B			C	B		A		B			A
Approach Vol, veh/h		494			576			168			5	
Approach Delay, s/veh		14.9			17.3			10.6			9.3	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	13.9	19.8	4.6	2.1
Green Ext Time (p_c), s	2.4	0.0	0.7	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
7: McCLELLAN AVE & W Fair Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	115	70	140	125	15	50	180	160	20	170	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	503	282	171	452	434	51	498	201	179	161	560	48
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1177	722	439	1173	1112	131	1179	516	459	1007	1437	124
Grp Volume(v), veh/h	22	0	201	152	0	152	54	0	370	22	0	201
Grp Sat Flow(s),veh/h/ln	1177	0	1162	1173	0	1243	1179	0	975	1007	0	1561
Q Serve(g_s), s	0.7	0.0	6.4	5.5	0.0	4.3	1.7	0.0	18.7	0.8	0.0	4.5
Cycle Q Clear(g_c), s	4.9	0.0	6.4	11.9	0.0	4.3	6.2	0.0	18.7	19.5	0.0	4.5
Prop In Lane	1.00		0.38	1.00		0.11	1.00		0.47	1.00		0.08
Lane Grp Cap(c), veh/h	503	0	453	452	0	485	498	0	380	161	0	609
V/C Ratio(X)	0.04	0.00	0.44	0.34	0.00	0.31	0.11	0.00	0.97	0.14	0.00	0.33
Avail Cap(c_a), veh/h	503	0	453	452	0	485	498	0	380	161	0	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.3	0.0	11.2	15.6	0.0	10.6	12.8	0.0	15.0	24.7	0.0	10.7
Incr Delay (d2), s/veh	0.2	0.0	3.1	2.0	0.0	1.7	0.4	0.0	39.9	1.8	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	2.0	1.7	0.0	1.4	0.5	0.0	7.8	0.3	0.0	1.6
Lane Grp Delay (d), s/veh	12.5	0.0	14.4	17.6	0.0	12.3	13.3	0.0	54.9	26.4	0.0	12.1
Lane Grp LOS	B		B	B		B	B		D	C		B
Approach Vol, veh/h		223			304			424			223	
Approach Delay, s/veh		14.2			15.0			49.6			13.5	
Approach LOS		B			B			D			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	8.4	13.9	20.7	21.5
Green Ext Time (p_c), s	1.7	1.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
9: 7th St & COLLEGE AVE

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	255	60	40	200	35	70	105	45	65	115	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.85	1.00	1.00	0.79
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	184.4	184.4	188.1	188.1	185.4	191.9	183.5	172.6	194.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	386	522	123	314	546	96	657	521	224	585	613	54
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	0.17	0.17	0.16	0.50	0.50	0.49
Sat Flow, veh/h	1130	1462	343	1023	1529	268	1250	1043	448	1190	1226	108
Grp Volume(v), veh/h	16	0	342	43	0	255	76	0	163	71	0	136
Grp Sat Flow(s),veh/h/ln	1130	0	1805	1023	0	1796	1250	0	1491	1190	0	1334
Q Serve(g_s), s	0.8	0.0	10.5	2.4	0.0	7.5	3.7	0.0	6.6	2.6	0.0	4.0
Cycle Q Clear(g_c), s	8.2	0.0	10.5	13.0	0.0	7.5	7.7	0.0	6.6	9.3	0.0	4.0
Prop In Lane	1.00		0.19	1.00		0.15	1.00		0.30	1.00		0.08
Lane Grp Cap(c), veh/h	386	0	645	314	0	642	657	0	745	585	0	667
V/C Ratio(X)	0.04	0.00	0.53	0.14	0.00	0.40	0.12	0.00	0.22	0.12	0.00	0.20
Avail Cap(c_a), veh/h	386	0	645	314	0	642	657	0	745	585	0	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	17.9	23.0	0.0	16.9	19.6	0.0	17.4	13.2	0.0	9.8
Incr Delay (d2), s/veh	0.2	0.0	3.1	0.9	0.0	1.8	0.4	0.0	0.7	0.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	4.9	0.7	0.0	3.5	1.3	0.0	2.7	0.8	0.0	1.3
Lane Grp Delay (d), s/veh	20.1	0.0	21.0	23.9	0.0	18.8	19.9	0.0	18.1	13.6	0.0	10.5
Lane Grp LOS	C		C	C		B	B		B	B		B
Approach Vol, veh/h		358			298			239			207	
Approach Delay, s/veh		21.0			19.5			18.7			11.5	
Approach LOS		C			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	12.5	15.0	9.7	11.3
Green Ext Time (p_c), s	2.3	2.0	1.8	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	18.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	130	175	20	90	15	195	150	35	20	135	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.68	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	168.1	186.3	190.0	158.3	186.3	197.6	186.3	181.9	197.6	186.3	188.6	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	474	214	288	296	471	77	545	388	91	513	448	198
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1143	709	955	885	1561	255	1157	961	224	1169	1108	490
Grp Volume(v), veh/h	60	0	331	22	0	114	212	0	201	22	0	212
Grp Sat Flow(s),veh/h/ln	1143	0	1664	885	0	1816	1157	0	1186	1169	0	1599
Q Serve(g_s), s	1.6	0.0	6.8	0.9	0.0	1.8	6.1	0.0	4.8	0.5	0.0	3.6
Cycle Q Clear(g_c), s	3.5	0.0	6.8	7.7	0.0	1.8	9.7	0.0	4.8	5.3	0.0	3.6
Prop In Lane	1.00		0.57	1.00		0.14	1.00		0.19	1.00		0.31
Lane Grp Cap(c), veh/h	474	0	502	296	0	548	545	0	479	513	0	646
V/C Ratio(X)	0.13	0.00	0.66	0.07	0.00	0.21	0.39	0.00	0.42	0.04	0.00	0.33
Avail Cap(c_a), veh/h	831	0	1021	573	0	1114	1081	0	1028	1054	0	1387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.5	0.0	12.0	15.4	0.0	10.3	11.4	0.0	8.4	10.4	0.0	8.1
Incr Delay (d2), s/veh	0.1	0.0	1.5	0.1	0.0	0.2	0.5	0.0	0.6	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	2.3	0.2	0.0	0.7	1.5	0.0	1.2	0.1	0.0	1.2
Lane Grp Delay (d), s/veh	11.7	0.0	13.5	15.5	0.0	10.4	11.9	0.0	9.0	10.4	0.0	8.4
Lane Grp LOS	B		B	B		B	B		A	B		A
Approach Vol, veh/h		391			136			413			234	
Approach Delay, s/veh		13.2			11.2			10.5			8.6	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	17.7	17.7	21.7	21.7
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	24.2	24.2	34.2	34.2
Max Q Clear Time (g_c+I1), s	8.8	9.7	11.7	7.3
Green Ext Time (p_c), s	1.9	1.9	2.8	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
19: PRESQUE ISLE AVE. & KAYE AVE

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	50	60	5	50	25	40	215	10	10	215	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	0.82	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	188.2	195.7	194.6	188.5	194.6	187.2	187.2	191.0	184.4	183.0	188.1
Lanes	1	1	1	0	1	0	1	1	0	1	1	0
Cap, veh/h	653	815	581	78	509	239	471	669	31	490	622	144
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.42	0.43	0.43	0.42	0.43	0.43	0.42
Sat Flow, veh/h	1318	1882	1340	33	1174	552	1087	1543	73	1116	1436	331
Grp Volume(v), veh/h	71	54	65	86	0	0	43	0	245	11	0	288
Grp Sat Flow(s),veh/h/ln	1318	1882	1340	1760	0	0	1087	0	1615	1116	0	1768
Q Serve(g_s), s	2.0	1.0	1.7	0.0	0.0	0.0	1.7	0.0	6.1	0.4	0.0	6.6
Cycle Q Clear(g_c), s	3.8	1.0	1.7	1.7	0.0	0.0	8.3	0.0	6.1	6.5	0.0	6.6
Prop In Lane	1.00		1.00	0.06		0.31	1.00		0.04	1.00		0.19
Lane Grp Cap(c), veh/h	653	815	581	826	0	0	471	0	700	490	0	766
V/C Ratio(X)	0.11	0.07	0.11	0.10	0.00	0.00	0.09	0.00	0.35	0.02	0.00	0.38
Avail Cap(c_a), veh/h	653	815	581	826	0	0	471	0	700	490	0	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.3	9.9	10.1	10.2	0.0	0.0	14.3	0.0	11.4	13.5	0.0	11.6
Incr Delay (d2), s/veh	0.3	0.2	0.4	0.3	0.0	0.0	0.4	0.0	1.4	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.4	0.6	0.7	0.0	0.0	0.5	0.0	2.4	0.1	0.0	2.9
Lane Grp Delay (d), s/veh	11.6	10.1	10.5	10.5	0.0	0.0	14.7	0.0	12.8	13.6	0.0	13.0
Lane Grp LOS	B	B	B	B			B		B	B		B
Approach Vol, veh/h		190			86			288			299	
Approach Delay, s/veh		10.8			10.5			13.0			13.0	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	5.8	3.7	10.3	8.6
Green Ext Time (p_c), s	1.0	1.1	2.2	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	140	105	10	110	10	55	205	10	10	235	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	185.9	192.8	188.1	184.4	188.1	188.1	188.1	191.9	185.3	180.8	189.0
Lanes	1	1	0	0	1	0	1	1	0	1	1	0
Cap, veh/h	408	259	194	100	417	36	667	725	36	687	847	143
Arrive On Green	0.26	0.26	0.24	0.26	0.26	0.24	0.56	0.56	0.54	0.56	0.56	0.54
Sat Flow, veh/h	1250	978	734	60	1579	138	1082	1289	64	1129	1506	254
Grp Volume(v), veh/h	60	0	266	142	0	0	60	0	234	11	0	298
Grp Sat Flow(s),veh/h/ln	1250	0	1712	1776	0	0	1082	0	1352	1129	0	1760
Q Serve(g_s), s	1.9	0.0	6.3	0.0	0.0	0.0	1.4	0.0	4.2	0.2	0.0	4.1
Cycle Q Clear(g_c), s	4.7	0.0	6.3	2.9	0.0	0.0	5.6	0.0	4.2	4.5	0.0	4.1
Prop In Lane	1.00		0.43	0.08		0.08	1.00		0.05	1.00		0.14
Lane Grp Cap(c), veh/h	408	0	453	554	0	0	667	0	761	687	0	990
V/C Ratio(X)	0.15	0.00	0.59	0.26	0.00	0.00	0.09	0.00	0.31	0.02	0.00	0.30
Avail Cap(c_a), veh/h	781	0	963	1068	0	0	667	0	761	687	0	990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.5	0.0	15.0	13.6	0.0	0.0	6.8	0.0	5.4	6.5	0.0	5.4
Incr Delay (d2), s/veh	0.2	0.0	1.2	0.2	0.0	0.0	0.3	0.0	1.0	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	2.5	1.2	0.0	0.0	0.4	0.0	1.3	0.1	0.0	1.5
Lane Grp Delay (d), s/veh	15.6	0.0	16.2	13.8	0.0	0.0	7.1	0.0	6.4	6.6	0.0	6.1
Lane Grp LOS	B		B	B			A		A	A		A
Approach Vol, veh/h		326			142			294			309	
Approach Delay, s/veh		16.1			13.8			6.5			6.2	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	16.2	16.2	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	8.3	4.9	7.6	6.5
Green Ext Time (p_c), s	1.8	1.9	2.4	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
30: Front St & Hewitt Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	25	15	15	30	5	20	155	15	10	100	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	182.4	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	87	380	205	207	405	56	112	778	70	93	793	76
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	87	1108	598	409	1180	162	113	1601	144	77	1632	157
Grp Volume(v), veh/h	48	0	0	54	0	0	206	0	0	131	0	0
Grp Sat Flow(s),veh/h/ln	1793	0	0	1751	0	0	1858	0	0	1866	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	1.3	0.0	0.0	4.4	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.10		0.33	0.30		0.09	0.11		0.08	0.08		0.08
Lane Grp Cap(c), veh/h	671	0	0	667	0	0	959	0	0	962	0	0
V/C Ratio(X)	0.07	0.00	0.00	0.08	0.00	0.00	0.21	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	671	0	0	667	0	0	959	0	0	962	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.5	0.0	0.0	15.6	0.0	0.0	10.4	0.0	0.0	9.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.5	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	0.0	0.6	0.0	0.0	1.9	0.0	0.0	1.1	0.0	0.0
Lane Grp Delay (d), s/veh	15.7	0.0	0.0	15.8	0.0	0.0	10.9	0.0	0.0	10.2	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		48			54			206			131	
Approach Delay, s/veh		15.7			15.8			10.9			10.2	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.2	3.3	6.4	4.7
Green Ext Time (p_c), s	0.4	0.4	1.9	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
31: N 3rd St/N 3 rd St & Hewitt Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	20	15	15	20	20	20	305	20	15	320	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	203	274	173	183	251	214	78	835	53	69	868	39
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	397	799	504	345	732	624	49	1719	110	31	1787	80
Grp Volume(v), veh/h	54	0	0	60	0	0	376	0	0	380	0	0
Grp Sat Flow(s),veh/h/ln	1700	0	0	1701	0	0	1877	0	0	1898	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	1.6	0.0	0.0	8.8	0.0	0.0	8.9	0.0	0.0
Prop In Lane	0.30		0.30	0.27		0.37	0.06		0.06	0.04		0.04
Lane Grp Cap(c), veh/h	650	0	0	648	0	0	966	0	0	975	0	0
V/C Ratio(X)	0.08	0.00	0.00	0.09	0.00	0.00	0.39	0.00	0.00	0.39	0.00	0.00
Avail Cap(c_a), veh/h	650	0	0	648	0	0	966	0	0	975	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.6	0.0	0.0	15.6	0.0	0.0	11.5	0.0	0.0	11.5	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.0	1.2	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	0.0	0.7	0.0	0.0	3.8	0.0	0.0	3.8	0.0	0.0
Lane Grp Delay (d), s/veh	15.8	0.0	0.0	15.9	0.0	0.0	12.7	0.0	0.0	12.7	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		54			60			376			380	
Approach Delay, s/veh		15.8			15.9			12.7			12.7	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.4	3.6	10.8	10.9
Green Ext Time (p_c), s	0.5	0.5	4.7	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	35	20	20	55	355	0	0	290	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	0.99		1.00	1.00		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	0.0	186.3	0.0	186.3	186.3	197.6	178.8	186.3	0.0	0.0	186.3	197.6
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	333	0	420	150	150	727	1221	0	0	994	189
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.66	0.66	0.00	0.00	1.00	1.00
Sat Flow, veh/h	0	1863	0	1774	837	837	952	1863	0	0	1516	289
Grp Volume(v), veh/h	0	0	0	38	0	44	60	386	0	0	0	375
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	0	1675	952	1863	0	0	0	1805
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	1.6	1.6	6.3	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.3	0.0	1.6	1.6	6.3	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	1.00		0.50	1.00		0.00	0.00		0.16
Lane Grp Cap(c), veh/h	0	333	0	420	0	299	727	1221	0	0	0	1183
V/C Ratio(X)	0.00	0.00	0.00	0.09	0.00	0.15	0.08	0.32	0.00	0.00	0.00	0.32
Avail Cap(c_a), veh/h	0	333	0	420	0	299	727	1221	0	0	0	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	24.1	0.0	24.3	4.4	5.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	1.0	0.2	0.7	0.0	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.6	0.0	0.7	0.3	2.4	0.0	0.0	0.0	0.2
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	24.6	0.0	25.3	4.7	5.9	0.0	0.0	0.0	0.7
Lane Grp LOS				C		C	A	A				A
Approach Vol, veh/h		0			82			446			375	
Approach Delay, s/veh		0.0			25.0			5.7			0.7	
Approach LOS					C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	18.3	18.3	51.7	51.7
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	12.5	12.5	45.9	45.9
Max Q Clear Time (g_c+I1), s	0.0	3.6	8.3	2.0
Green Ext Time (p_c), s	0.0	0.1	5.4	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	30	100	55	40	120	180	135	590	40	45	535	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	184.6	191.0	190.0	171.8	193.8	193.7	146.2	142.9	191.8	162.2	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	110	208	114	234	115	174	157	1472	611	76	1492	721
Arrive On Green	0.20	0.19	0.19	0.20	0.19	0.19	0.09	0.50	0.50	0.04	0.46	0.46
Sat Flow, veh/h	1055	1116	614	1236	619	934	1845	2923	1214	1827	3243	1568
Grp Volume(v), veh/h	33	0	169	43	0	326	147	641	43	49	582	49
Grp Sat Flow(s),veh/h/ln	1055	0	1731	1236	0	1553	1845	1462	1214	1827	1622	1568
Q Serve(g_s), s	1.5	0.0	7.0	2.5	0.0	14.9	6.3	11.2	1.5	2.1	9.4	1.4
Cycle Q Clear(g_c), s	16.4	0.0	7.0	9.6	0.0	14.9	6.3	11.2	1.5	2.1	9.4	1.4
Prop In Lane	1.00		0.36	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	0	322	234	0	289	157	1472	611	76	1492	721
V/C Ratio(X)	0.30	0.00	0.52	0.18	0.00	1.13	0.94	0.44	0.07	0.65	0.39	0.07
Avail Cap(c_a), veh/h	110	0	322	234	0	289	157	1472	611	155	1492	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	29.4	32.3	0.0	32.6	36.4	12.6	10.2	37.8	14.2	12.0
Incr Delay (d2), s/veh	1.5	0.0	1.6	0.4	0.0	91.6	53.5	0.9	0.2	8.9	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	3.2	0.8	0.0	13.1	5.1	3.5	0.4	1.1	3.4	0.5
Lane Grp Delay (d), s/veh	41.1	0.0	30.9	32.7	0.0	124.2	89.9	13.6	10.4	46.7	15.0	12.2
Lane Grp LOS	D		C	C		F	F	B	B	D	B	B
Approach Vol, veh/h		202			369			831			680	
Approach Delay, s/veh		32.6			113.5			26.9			17.1	
Approach LOS		C			F			C			B	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		24.0			24.0		13.0	46.5		9.5	43.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		14.9			14.9		6.8	36.8		6.8	36.8	
Max Q Clear Time (g_c+I1), s		18.4			16.9		8.3	13.2		4.1	11.4	
Green Ext Time (p_c), s		0.0			0.0		0.0	5.2		0.0	5.3	

Intersection Summary	
HCM 2010 Ctrl Delay	39.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	35	65	65	40	20	25	670	45	15	715	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	193.7	186.3	197.6	193.7	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	454	175	326	411	349	178	371	1907	128	401	1859	170
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1331	582	1088	1279	1163	595	673	3452	232	719	3364	307
Grp Volume(v), veh/h	82	0	109	71	0	65	27	393	384	16	430	418
Grp Sat Flow(s),veh/h/ln	1331	0	1671	1279	0	1758	673	1863	1822	719	1863	1809
Q Serve(g_s), s	3.8	0.0	3.9	3.5	0.0	2.2	1.9	9.6	9.6	1.0	10.7	10.8
Cycle Q Clear(g_c), s	6.0	0.0	3.9	7.4	0.0	2.2	12.7	9.6	9.6	10.6	10.7	10.8
Prop In Lane	1.00		0.65	1.00		0.34	1.00		0.13	1.00		0.17
Lane Grp Cap(c), veh/h	454	0	501	411	0	527	371	1029	1007	401	1029	999
V/C Ratio(X)	0.18	0.00	0.22	0.17	0.00	0.12	0.07	0.38	0.38	0.04	0.42	0.42
Avail Cap(c_a), veh/h	454	0	501	411	0	527	371	1029	1007	401	1029	999
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	21.0	23.7	0.0	20.4	14.1	10.1	10.2	13.2	10.4	10.4
Incr Delay (d2), s/veh	0.9	0.0	1.0	0.9	0.0	0.5	0.4	1.1	1.1	0.2	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	0.0	1.7	1.1	0.0	0.9	0.3	4.0	3.9	0.2	4.5	4.4
Lane Grp Delay (d), s/veh	23.4	0.0	22.0	24.7	0.0	20.8	14.5	11.2	11.3	13.3	11.7	11.7
Lane Grp LOS	C		C	C		C	B	B	B	B	B	B
Approach Vol, veh/h		191			136			804			864	
Approach Delay, s/veh		22.6			22.8			11.3			11.7	
Approach LOS		C			C			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	50.0	50.0
Change Period (Y+Rc), s	6.0	6.0	5.8	5.8
Max Green Setting (Gmax), s	24.0	24.0	44.2	44.2
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	0	0	760	575	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	16
Total Lost time (s)				5.5	7.7	
Lane Util. Factor				0.95	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3539	3433	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3539	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	826	625	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	826	625	0
Turn Type				NA	NA	
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				35.5	31.3	
Effective Green, g (s)				35.5	31.3	
Actuated g/C Ratio				0.44	0.39	
Clearance Time (s)				5.5	7.7	
Lane Grp Cap (vph)				1570	1343	
v/s Ratio Prot				c0.23	c0.18	
v/s Ratio Perm						
v/c Ratio				0.53	0.47	
Uniform Delay, d1				16.1	18.1	
Progression Factor				1.00	0.28	
Incremental Delay, d2				1.3	1.0	
Delay (s)				17.4	6.0	
Level of Service				B	A	
Approach Delay (s)	0.0			17.4	6.0	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
270:

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Volume (vph)	0	695	0	0	0	0	0	0	0	575
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	12	16	16	16	16	13	16	16	12
Total Lost time (s)		5.5								7.7
Lane Util. Factor		0.95								0.88
Frt		1.00								0.85
Flt Protected		1.00								1.00
Satd. Flow (prot)		3539								2787
Flt Permitted		1.00								1.00
Satd. Flow (perm)		3539								2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	755	0	0	0	0	0	0	0	625
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	755	0	0	0	0	0	0	0	625
Turn Type		NA								custom
Protected Phases		1								
Permitted Phases										2
Actuated Green, G (s)		35.5								31.3
Effective Green, g (s)		35.5								31.3
Actuated g/C Ratio		0.44								0.39
Clearance Time (s)		5.5								7.7
Lane Grp Cap (vph)		1570								1090
v/s Ratio Prot		c0.21								
v/s Ratio Perm										c0.22
v/c Ratio		0.48								0.57
Uniform Delay, d1		15.7								19.1
Progression Factor		1.00								1.52
Incremental Delay, d2		1.1								2.1
Delay (s)		16.8								31.1
Level of Service		B								C
Approach Delay (s)		16.8			0.0		0.0		31.1	
Approach LOS		B			A		A		C	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.2
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	530	80	135	555	100	95	305	150	130	255	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	184.4	178.0	195.6
Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Cap, veh/h	335	1426	215	355	1385	250	361	963	463	347	830	520
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.41	0.38	0.38	0.41	0.38
Sat Flow, veh/h	735	3164	477	769	3073	554	931	2378	1143	889	2050	1283
Grp Volume(v), veh/h	163	338	325	147	365	347	103	259	236	141	239	217
Grp Sat Flow(s),veh/h/ln	735	1863	1778	769	1863	1765	931	1863	1659	889	1780	1552
Q Serve(g_s), s	13.7	8.5	8.6	11.1	9.4	9.4	6.3	6.7	7.1	9.6	6.5	7.0
Cycle Q Clear(g_c), s	23.1	8.5	8.6	19.7	9.4	9.4	13.3	6.7	7.1	16.7	6.5	7.0
Prop In Lane	1.00		0.27	1.00		0.31	1.00		0.69	1.00		0.83
Lane Grp Cap(c), veh/h	335	840	802	355	840	795	361	755	672	347	721	629
V/C Ratio(X)	0.49	0.40	0.40	0.41	0.43	0.44	0.29	0.34	0.35	0.41	0.33	0.34
Avail Cap(c_a), veh/h	335	840	802	355	840	795	361	755	672	347	721	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	12.9	12.9	19.6	13.1	13.2	20.6	14.4	15.0	21.9	14.3	15.0
Incr Delay (d2), s/veh	5.0	1.4	1.5	3.5	1.6	1.7	2.0	1.2	1.4	3.5	1.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.7	3.7	3.6	2.3	4.1	4.0	1.5	3.0	2.8	2.3	2.8	2.6
Lane Grp Delay (d), s/veh	26.0	14.4	14.5	23.1	14.8	14.9	22.6	15.6	16.4	25.4	15.6	16.5
Lane Grp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		826			859			598			597	
Approach Delay, s/veh		16.7			16.3			17.2			18.2	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		37.7			37.7			32.4			32.4	
Change Period (Y+Rc), s		6.1			6.1			6.0			6.0	
Max Green Setting (Gmax), s		31.6			31.5			26.4			26.4	
Max Q Clear Time (g_c+I1), s		25.1			21.7			15.3			18.7	
Green Ext Time (p_c), s		4.4			6.1			3.8			3.1	

Intersection Summary												
HCM 2010 Ctrl Delay			17.0									
HCM 2010 LOS			B									

Notes

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE & US 41

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	560	190	0	295	0	0	255	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			2%			0%			6%	
Total Lost time (s)					6.4	6.4		3.2			10.0	10.0
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3397	1555		1781			1771	1431
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3397	1555		1781			1771	1431
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	609	207	0	321	0	0	277	147
RTOR Reduction (vph)	0	0	0	0	0	105	0	0	0	0	0	103
Lane Group Flow (vph)	0	0	0	0	609	102	0	321	0	0	277	44
Heavy Vehicles (%)	2%	6%	11%	2%	5%	2%	2%	2%	4%	2%	2%	9%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1		2			2	2
Actuated Green, G (s)					39.6	39.6		28.0			24.0	24.0
Effective Green, g (s)					39.6	39.6		30.8			24.0	24.0
Actuated g/C Ratio					0.50	0.50		0.39			0.30	0.30
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1681	769		685			531	429
v/s Ratio Prot					c0.18			c0.18			0.16	
v/s Ratio Perm						0.07						0.03
v/c Ratio					0.36	0.13		0.47			0.52	0.10
Uniform Delay, d1					12.4	10.9		18.5			23.2	20.2
Progression Factor					1.00	1.00		0.08			1.00	1.00
Incremental Delay, d2					0.6	0.4		2.1			3.6	0.5
Delay (s)					13.0	11.3		3.5			26.9	20.7
Level of Service					B	B		A			C	C
Approach Delay (s)		0.0			12.6			3.5			24.7	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
110: McCLELLAN AVE/McCLELLEN AVE & US 41

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	575	210	0	0	0	0	295	180	0	255	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	20	20	20	20	20	20
Total Lost time (s)		6.4	6.4					10.0	8.5		6.0	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2006					2359	2006		2359	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2006					2359	2006		2359	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	625	228	0	0	0	0	321	196	0	277	0
RTOR Reduction (vph)	0	0	115	0	0	0	0	0	134	0	0	0
Lane Group Flow (vph)	0	625	113	0	0	0	0	321	62	0	277	0
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		39.6	39.6					24.0	24.0		28.0	
Effective Green, g (s)		39.6	39.6					24.0	25.5		28.0	
Actuated g/C Ratio		0.50	0.50					0.30	0.32		0.35	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1751	992					707	639		825	
v/s Ratio Prot		c0.18						c0.14			0.12	
v/s Ratio Perm			0.06						0.03			
v/c Ratio		0.36	0.11					0.45	0.10		0.34	
Uniform Delay, d1		12.4	10.8					22.7	19.2		19.2	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		0.6	0.2					2.1	0.3		1.0	
Delay (s)		13.0	11.0					24.8	19.5		1.0	
Level of Service		B	B					C	B		A	
Approach Delay (s)		12.4			0.0			22.8			1.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.4
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 Signalized Intersection Summary
70: LINCOLN AVE & W Fair Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	100	150	30	75	5	150	110	25	10	140	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.79	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	177.9	168.7	196.6	199.6	192.7	199.6	195.6	184.2	195.6
Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Cap, veh/h	528	188	281	314	496	30	476	335	69	84	792	110
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.33	0.52	0.52	0.50	0.52	0.52	0.50
Sat Flow, veh/h	1315	537	803	1052	1417	86	744	649	133	39	1533	212
Grp Volume(v), veh/h	27	0	272	33	0	87	310	0	0	185	0	0
Grp Sat Flow(s),veh/h/ln	1315	0	1340	1052	0	1503	1526	0	0	1784	0	0
Q Serve(g_s), s	0.9	0.0	9.9	1.6	0.0	2.4	3.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	9.9	11.5	0.0	2.4	6.5	0.0	0.0	3.3	0.0	0.0
Prop In Lane	1.00		0.60	1.00		0.06	0.53		0.09	0.06		0.12
Lane Grp Cap(c), veh/h	528	0	469	314	0	526	880	0	0	986	0	0
V/C Ratio(X)	0.05	0.00	0.58	0.11	0.00	0.17	0.35	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	528	0	469	314	0	526	880	0	0	986	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.6	0.0	15.9	20.6	0.0	13.5	8.5	0.0	0.0	7.8	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	5.2	0.7	0.0	0.7	1.1	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.3	0.0	3.7	0.5	0.0	0.9	2.5	0.0	0.0	1.4	0.0	0.0
Lane Grp Delay (d), s/veh	14.8	0.0	21.1	21.3	0.0	14.2	9.6	0.0	0.0	8.3	0.0	0.0
Lane Grp LOS	B		C	C		B	A			A		
Approach Vol, veh/h		299			120			310			185	
Approach Delay, s/veh		20.5			16.1			9.6			8.3	
Approach LOS		C			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	35.0	35.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	20.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	11.9	13.5	8.5	5.3
Green Ext Time (p_c), s	1.2	1.0	2.1	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	35	45	85	20	105	30	170	80	115	195	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.97		0.96	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	178.8	178.8	197.6	178.8	178.8	197.6	178.8	178.8	197.6
Lanes	0	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	0	147	190	312	48	247	723	683	321	671	1033	24
Arrive On Green	0.00	0.20	0.20	0.20	0.20	0.20	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	0	749	966	1210	243	1257	1110	1150	541	1056	1740	41
Grp Volume(v), veh/h	0	0	87	92	0	136	33	0	272	125	0	217
Grp Sat Flow(s),veh/h/ln	0	0	1715	1210	0	1500	1110	0	1691	1056	0	1781
Q Serve(g_s), s	0.0	0.0	2.5	4.0	0.0	4.6	0.8	0.0	4.5	3.7	0.0	3.2
Cycle Q Clear(g_c), s	0.0	0.0	2.5	6.4	0.0	4.6	4.0	0.0	4.5	8.2	0.0	3.2
Prop In Lane	0.00		0.56	1.00		0.84	1.00		0.32	1.00		0.02
Lane Grp Cap(c), veh/h	0	0	337	312	0	295	723	0	1004	671	0	1058
V/C Ratio(X)	0.00	0.00	0.26	0.30	0.00	0.46	0.05	0.00	0.27	0.19	0.00	0.21
Avail Cap(c_a), veh/h	0	0	719	581	0	629	723	0	1004	671	0	1058
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.5	22.2	0.0	20.3	6.3	0.0	5.6	7.6	0.0	5.4
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.5	0.0	1.1	0.1	0.0	0.7	0.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	1.0	1.1	0.0	1.6	0.2	0.0	1.5	0.8	0.0	1.2
Lane Grp Delay (d), s/veh	0.0	0.0	19.9	22.7	0.0	21.5	6.4	0.0	6.3	8.2	0.0	5.8
Lane Grp LOS			B	C		C	A		A	A		A
Approach Vol, veh/h		87			228			305			342	
Approach Delay, s/veh		19.9			22.0			6.3			6.7	
Approach LOS		B			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	17.2	17.2	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	4.5	8.4	6.5	10.2
Green Ext Time (p_c), s	1.5	1.4	3.4	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	635	40	25	615	45	50	20	35	85	10	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	190.0	193.7	197.6	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Cap, veh/h	305	964	60	295	952	70	228	101	125	361	32	431
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	730	1735	108	719	1714	126	513	347	430	1334	111	1486
Grp Volume(v), veh/h	130	0	733	27	0	717	114	0	0	92	0	158
Grp Sat Flow(s),veh/h/ln	730	0	1843	719	0	1840	1290	0	0	1334	0	1597
Q Serve(g_s), s	10.6	0.0	19.8	1.9	0.0	19.2	1.5	0.0	0.0	4.0	0.0	5.3
Cycle Q Clear(g_c), s	29.8	0.0	19.8	21.8	0.0	19.2	6.7	0.0	0.0	10.8	0.0	5.3
Prop In Lane	1.00		0.06	1.00		0.07	0.47		0.33	1.00		0.93
Lane Grp Cap(c), veh/h	305	0	1024	295	0	1022	453	0	0	361	0	464
V/C Ratio(X)	0.43	0.00	0.72	0.09	0.00	0.70	0.25	0.00	0.00	0.25	0.00	0.34
Avail Cap(c_a), veh/h	332	0	1092	322	0	1090	453	0	0	361	0	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	11.1	19.1	0.0	10.9	18.9	0.0	0.0	23.7	0.0	18.9
Incr Delay (d2), s/veh	0.9	0.0	2.1	0.1	0.0	1.9	1.3	0.0	0.0	1.7	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.8	0.0	7.5	0.3	0.0	7.3	1.5	0.0	0.0	1.4	0.0	2.1
Lane Grp Delay (d), s/veh	22.7	0.0	13.2	19.2	0.0	12.8	20.3	0.0	0.0	25.4	0.0	20.9
Lane Grp LOS	C		B	B		B	C			C		C
Approach Vol, veh/h		863			744			114			250	
Approach Delay, s/veh		14.6			13.0			20.3			22.5	
Approach LOS		B			B			C			C	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	42.5	42.5	25.0	25.0
Change Period (Y+Rc), s	5.0	5.0	5.4	5.4
Max Green Setting (Gmax), s	40.0	40.0	19.6	19.6
Max Q Clear Time (g_c+I1), s	31.8	23.8	8.7	12.8
Green Ext Time (p_c), s	5.7	9.4	1.4	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
74: 7th St & MAGNETIC ST

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	85	35	20	100	20	25	195	25	15	150	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	199.6	195.1	199.6	194.6	190.8	194.6	200.6	196.6	200.6	194.6	190.8	194.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	0	468	194	112	494	92	110	787	95	94	827	53
Arrive On Green	0.00	0.36	0.34	0.36	0.36	0.34	0.50	0.50	0.49	0.17	0.17	0.16
Sat Flow, veh/h	0	1312	542	148	1384	257	106	1574	190	77	1654	106
Grp Volume(v), veh/h	0	0	130	153	0	0	266	0	0	190	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1854	1790	0	0	1870	0	0	1837	0	0
Q Serve(g_s), s	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	3.4	4.0	0.0	0.0	5.6	0.0	0.0	6.1	0.0	0.0
Prop In Lane	0.00		0.29	0.14		0.14	0.10		0.10	0.08		0.06
Lane Grp Cap(c), veh/h	0	0	662	698	0	0	992	0	0	974	0	0
V/C Ratio(X)	0.00	0.00	0.20	0.22	0.00	0.00	0.27	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	0	0	662	698	0	0	992	0	0	974	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	15.7	15.8	0.0	0.0	10.2	0.0	0.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.7	0.0	0.0	0.7	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	1.6	1.9	0.0	0.0	2.6	0.0	0.0	3.0	0.0	0.0
Lane Grp Delay (d), s/veh	0.0	0.0	16.3	16.5	0.0	0.0	10.8	0.0	0.0	17.6	0.0	0.0
Lane Grp LOS			B	B			B			B		
Approach Vol, veh/h		130			153			266			190	
Approach Delay, s/veh		16.3			16.5			10.8			17.6	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	5.4	6.0	7.6	8.1
Green Ext Time (p_c), s	1.0	1.0	1.9	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	460	90	15	420	30	80	125	30	35	100	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	184.2	191.9	203.5
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	319	653	128	239	741	53	494	573	139	514	391	312
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	902	1513	297	817	1717	124	1182	1449	352	1198	989	790
Grp Volume(v), veh/h	65	0	598	16	0	490	87	0	169	38	0	196
Grp Sat Flow(s),veh/h/ln	902	0	1810	817	0	1841	1182	0	1801	1198	0	1779
Q Serve(g_s), s	3.7	0.0	17.5	1.1	0.0	12.8	3.4	0.0	3.9	1.4	0.0	4.7
Cycle Q Clear(g_c), s	16.6	0.0	17.5	18.5	0.0	12.8	8.0	0.0	3.9	5.3	0.0	4.7
Prop In Lane	1.00		0.16	1.00		0.07	1.00		0.20	1.00		0.44
Lane Grp Cap(c), veh/h	319	0	781	239	0	794	494	0	711	514	0	703
V/C Ratio(X)	0.20	0.00	0.77	0.07	0.00	0.62	0.18	0.00	0.24	0.07	0.00	0.28
Avail Cap(c_a), veh/h	431	0	1006	340	0	1023	494	0	711	514	0	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	15.0	22.9	0.0	13.7	15.5	0.0	12.6	14.3	0.0	12.8
Incr Delay (d2), s/veh	0.3	0.0	2.7	0.1	0.0	0.8	0.8	0.0	0.8	0.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	0.0	7.2	0.2	0.0	5.1	1.0	0.0	1.7	0.4	0.0	2.0
Lane Grp Delay (d), s/veh	20.5	0.0	17.7	23.0	0.0	14.5	16.3	0.0	13.4	14.6	0.0	13.8
Lane Grp LOS	C		B	C		B	B		B	B		B
Approach Vol, veh/h		663			506			256			234	
Approach Delay, s/veh		18.0			14.8			14.4			13.9	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	32.3	32.3	30.0	30.0
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	34.6	34.6	24.6	24.6
Max Q Clear Time (g_c+I1), s	19.5	20.5	10.0	7.3
Green Ext Time (p_c), s	6.5	6.2	2.2	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	430	35	15	380	10	40	10	15	5	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	199.6	186.3	193.7	197.6	186.3	186.3	197.6	186.3	178.8	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	463	876	71	394	958	26	552	229	333	547	274	274
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	968	1717	140	890	1878	50	1380	686	997	1374	820	820
Grp Volume(v), veh/h	11	0	505	16	0	424	43	0	27	5	0	22
Grp Sat Flow(s),veh/h/ln	968	0	1856	890	0	1928	1380	0	1683	1374	0	1641
Q Serve(g_s), s	0.5	0.0	12.8	0.9	0.0	9.7	1.5	0.0	0.8	0.2	0.0	0.6
Cycle Q Clear(g_c), s	10.2	0.0	12.8	13.7	0.0	9.7	2.2	0.0	0.8	0.9	0.0	0.6
Prop In Lane	1.00		0.08	1.00		0.03	1.00		0.59	1.00		0.50
Lane Grp Cap(c), veh/h	463	0	947	394	0	983	552	0	563	547	0	548
V/C Ratio(X)	0.02	0.00	0.53	0.04	0.00	0.43	0.08	0.00	0.05	0.01	0.00	0.04
Avail Cap(c_a), veh/h	463	0	947	394	0	983	552	0	563	547	0	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.0	0.0	11.5	16.1	0.0	10.8	16.4	0.0	15.8	16.1	0.0	15.7
Incr Delay (d2), s/veh	0.1	0.0	2.2	0.2	0.0	1.4	0.3	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	5.5	0.2	0.0	4.3	0.5	0.0	0.3	0.1	0.0	0.3
Lane Grp Delay (d), s/veh	14.1	0.0	13.7	16.3	0.0	12.2	16.7	0.0	15.9	16.1	0.0	15.9
Lane Grp LOS	B		B	B		B	B		B	B		B
Approach Vol, veh/h		516			440			70			27	
Approach Delay, s/veh		13.7			12.3			16.4			15.9	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	41.2	41.2	28.8	28.8
Change Period (Y+Rc), s	5.5	5.5	5.4	5.4
Max Green Setting (Gmax), s	35.7	35.7	23.4	23.4
Max Q Clear Time (g_c+I1), s	14.8	15.7	4.2	2.9
Green Ext Time (p_c), s	6.0	5.9	0.3	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
77: FOURTH ST & WASHINGTON ST

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	320	50	15	255	35	40	80	20	30	90	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.97	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	1.00	1.00	0.99
Adj Sat Flow veh/h/ln	195.7	184.3	191.9	184.4	191.8	195.6	178.0	186.9	190.7	189.1	191.7	200.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	427	586	91	340	621	85	617	570	144	710	438	389
Arrive On Green	0.38	0.38	0.33	0.38	0.38	0.33	0.47	0.47	0.43	0.47	0.47	0.43
Sat Flow, veh/h	1098	1551	241	958	1644	226	1135	1201	304	1290	922	819
Grp Volume(v), veh/h	82	0	402	16	0	315	43	0	109	33	0	185
Grp Sat Flow(s),veh/h/ln	1098	0	1792	958	0	1870	1135	0	1504	1290	0	1741
Q Serve(g_s), s	2.9	0.0	8.6	0.6	0.0	6.0	1.1	0.0	2.0	0.7	0.0	3.1
Cycle Q Clear(g_c), s	8.9	0.0	8.6	9.2	0.0	6.0	4.2	0.0	2.0	2.7	0.0	3.1
Prop In Lane	1.00		0.13	1.00		0.12	1.00		0.20	1.00		0.47
Lane Grp Cap(c), veh/h	427	0	677	340	0	706	617	0	714	710	0	826
V/C Ratio(X)	0.19	0.00	0.59	0.05	0.00	0.45	0.07	0.00	0.15	0.05	0.00	0.22
Avail Cap(c_a), veh/h	950	0	1530	797	0	1597	617	0	714	710	0	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	12.0	15.6	0.0	11.1	8.6	0.0	7.2	7.8	0.0	7.7
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.1	0.0	0.4	0.2	0.0	0.5	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	3.2	0.1	0.0	2.3	0.3	0.0	0.7	0.2	0.0	1.2
Lane Grp Delay (d), s/veh	14.6	0.0	12.8	15.6	0.0	11.6	8.8	0.0	7.6	7.9	0.0	8.3
Lane Grp LOS	B		B	B		B	A		A	A		A
Approach Vol, veh/h		484			331			152			218	
Approach Delay, s/veh		13.1			11.8			8.0			8.2	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	21.4	21.4	26.0	26.0
Change Period (Y+Rc), s	5.7	5.7	5.7	5.7
Max Green Setting (Gmax), s	38.3	38.3	20.3	20.3
Max Q Clear Time (g_c+I1), s	10.9	11.2	6.2	5.1
Green Ext Time (p_c), s	3.5	3.5	1.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	170	75	10	145	40	55	140	35	40	120	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.94	0.97		0.94	0.98		0.98	0.98		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	197.6	178.8	178.8	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	326	328	146	250	351	96	630	799	200	678	460	481
Arrive On Green	0.26	0.26	0.26	0.53	0.53	0.53	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1134	1248	553	1033	1336	363	1092	1431	358	1121	824	862
Grp Volume(v), veh/h	130	0	267	11	0	201	60	0	190	43	0	266
Grp Sat Flow(s),veh/h/ln	1134	0	1802	1033	0	1699	1092	0	1789	1121	0	1686
Q Serve(g_s), s	6.8	0.0	8.3	0.5	0.0	4.8	2.0	0.0	3.4	1.3	0.0	5.4
Cycle Q Clear(g_c), s	11.6	0.0	8.3	8.8	0.0	4.8	7.3	0.0	3.4	4.7	0.0	5.4
Prop In Lane	1.00		0.31	1.00		0.21	1.00		0.20	1.00		0.51
Lane Grp Cap(c), veh/h	326	0	474	250	0	447	630	0	999	678	0	941
V/C Ratio(X)	0.40	0.00	0.56	0.04	0.00	0.45	0.10	0.00	0.19	0.06	0.00	0.28
Avail Cap(c_a), veh/h	416	0	617	332	0	582	630	0	999	678	0	941
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.00	0.81	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.1	0.0	20.7	16.5	0.0	12.5	9.4	0.0	7.1	8.2	0.0	7.5
Incr Delay (d2), s/veh	0.6	0.0	0.9	0.1	0.0	0.7	0.3	0.0	0.4	0.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.8	0.0	3.4	0.1	0.0	1.6	0.5	0.0	1.3	0.3	0.0	1.9
Lane Grp Delay (d), s/veh	24.7	0.0	21.5	16.6	0.0	13.2	9.7	0.0	7.5	8.4	0.0	8.3
Lane Grp LOS	C		C	B		B	A		A	A		A
Approach Vol, veh/h		397			212			250			309	
Approach Delay, s/veh		22.6			13.3			8.0			8.3	
Approach LOS		C			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	22.9	22.9	42.0	42.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	22.2	22.2	36.2	36.2
Max Q Clear Time (g_c+I1), s	13.6	10.8	9.3	7.4
Green Ext Time (p_c), s	2.1	2.5	3.1	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
79: Front St

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	45	140	0	0	0	85	215	5	0	165	25
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.98	1.00		0.87
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	186.3	178.8				197.6	186.3	197.6	197.6	186.3	197.6
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	372	256	517				0	0	0	0	0	0
Arrive On Green	0.35	0.35	0.35				0.97	0.97	0.97	0.00	0.00	0.00
Sat Flow, veh/h	1070	739	1489				0	1816	39		-89714	-13532
Grp Volume(v), veh/h	120	0	152				0	0	239		0	206
Grp Sat Flow(s),veh/h/ln	1809	0	1489				0	0	1855		0	-103246
Q Serve(g_s), s	3.2	0.0	5.2				0.0	0.0	70.0		0.0	0.1
Cycle Q Clear(g_c), s	3.2	0.0	5.2				0.0	0.0	70.0		0.0	0.1
Prop In Lane	0.59		1.00				0.00		0.02			0.13
Lane Grp Cap(c), veh/h	628	0	517				0	0	0		0	-147
V/C Ratio(X)	0.19	0.00	0.29				0.00	0.00	0.00		0.00	-1.40
Avail Cap(c_a), veh/h	628	0	517				0	0	0		0	-30531
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	2.00		1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00		0.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	16.6				0.0	0.0	0.0		0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.4				0.0	0.0	0.0		0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	0.0	5.1				0.0	0.0	0.0		0.0	0.0
Lane Grp Delay (d), s/veh	16.7	0.0	18.1				0.0	0.0	0.0		0.0	0.0
Lane Grp LOS	B		B									
Approach Vol, veh/h		272						239			206	
Approach Delay, s/veh		17.4						0.0			0.0	
Approach LOS		B						A			A	

Timer												
Assigned Phs		4					5	2			6	
Phs Duration (G+Y+Rc), s		30.1					39.9	39.9			0.0	
Change Period (Y+Rc), s		5.8					5.8	5.8			5.8	
Max Green Setting (Gmax), s		24.3					7.6	34.1			20.7	
Max Q Clear Time (g_c+I1), s		7.2					0.0	72.0			0.0	
Green Ext Time (p_c), s		1.0					0.0	0.0			0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			6.6									
HCM 2010 LOS			A									

Notes

PM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	215	425	80	35	415	30	105	75	45	60	80	310
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	0.98		0.94	0.96		0.94
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	178.8	186.3	197.6	178.8	186.3	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	363	736	139	315	829	61	196	367	219	436	110	426
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	867	1521	286	817	1713	125	940	1067	638	1151	319	1237
Grp Volume(v), veh/h	234	0	549	38	0	484	114	0	131	65	0	424
Grp Sat Flow(s),veh/h/ln	867	0	1808	817	0	1839	940	0	1705	1151	0	1557
Q Serve(g_s), s	18.1	0.0	15.7	2.5	0.0	12.9	6.9	0.0	3.8	3.0	0.0	17.1
Cycle Q Clear(g_c), s	30.9	0.0	15.7	18.2	0.0	12.9	24.0	0.0	3.8	6.8	0.0	17.1
Prop In Lane	1.00		0.16	1.00		0.07	1.00		0.37	1.00		0.79
Lane Grp Cap(c), veh/h	363	0	875	315	0	890	196	0	587	436	0	536
V/C Ratio(X)	0.65	0.00	0.63	0.12	0.00	0.54	0.58	0.00	0.22	0.15	0.00	0.79
Avail Cap(c_a), veh/h	366	0	881	317	0	896	196	0	587	436	0	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	13.3	20.1	0.0	12.6	32.1	0.0	16.3	18.7	0.0	20.6
Incr Delay (d2), s/veh	3.8	0.0	1.4	0.2	0.0	0.7	12.0	0.0	0.9	0.7	0.0	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.9	0.0	6.1	0.5	0.0	5.0	2.6	0.0	1.6	0.9	0.0	7.6
Lane Grp Delay (d), s/veh	27.3	0.0	14.7	20.3	0.0	13.3	44.1	0.0	17.1	19.4	0.0	32.0
Lane Grp LOS	C		B	C		B	D		B	B		C
Approach Vol, veh/h		783			522			245			489	
Approach Delay, s/veh		18.5			13.8			29.7			30.3	
Approach LOS		B			B			C			C	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	39.8	39.8	30.0	30.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	34.0	24.0	24.0
Max Q Clear Time (g_c+I1), s	32.9	20.2	26.0	19.1
Green Ext Time (p_c), s	0.7	6.3	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	490	35	140	615	5	115	5	135	0	5	5
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	179.9	199.6	182.5	169.4	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	647	46	227	655	5	684	20	600	0	300	300
Arrive On Green	0.00	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.39	0.39
Sat Flow, veh/h	0	1659	118	820	1679	13	1399	52	1539	0	770	770
Grp Volume(v), veh/h	0	0	571	152	0	673	125	0	152	0	0	10
Grp Sat Flow(s),veh/h/ln	0	0	1778	820	0	1691	1399	0	1591	0	0	1541
Q Serve(g_s), s	0.0	0.0	14.4	5.1	0.0	19.5	3.0	0.0	3.2	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.0	0.0	14.4	19.5	0.0	19.5	3.2	0.0	3.2	0.0	0.0	0.2
Prop In Lane	0.00		0.07	1.00		0.01	1.00		0.97	0.00		0.50
Lane Grp Cap(c), veh/h	0	0	693	227	0	660	684	0	621	0	0	601
V/C Ratio(X)	0.00	0.00	0.82	0.67	0.00	1.02	0.18	0.00	0.24	0.00	0.00	0.02
Avail Cap(c_a), veh/h	0	0	693	227	0	660	684	0	621	0	0	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	13.7	23.6	0.0	15.3	10.3	0.0	10.3	0.0	0.0	9.4
Incr Delay (d2), s/veh	0.0	0.0	8.0	7.4	0.0	40.2	0.6	0.0	0.9	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	6.6	2.2	0.0	14.0	0.9	0.0	1.2	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	21.7	31.0	0.0	55.5	10.9	0.0	11.2	0.0	0.0	9.4
Lane Grp LOS			C	C		F	B		B			A
Approach Vol, veh/h		571			825			277			10	
Approach Delay, s/veh		21.7			51.0			11.1			9.4	
Approach LOS		C			D			B			A	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	16.4	21.5	5.2	2.2
Green Ext Time (p_c), s	1.9	0.0	1.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	34.2
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
7: McCLELLAN AVE & W Fair Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	115	95	205	195	45	80	165	110	20	225	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	198.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	383	245	202	417	388	90	426	230	154	278	533	72
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1066	629	518	1144	994	230	1100	590	396	1074	1366	184
Grp Volume(v), veh/h	11	0	228	223	0	261	87	0	299	22	0	278
Grp Sat Flow(s),veh/h/ln	1066	0	1146	1144	0	1224	1100	0	986	1074	0	1550
Q Serve(g_s), s	0.4	0.0	7.6	9.2	0.0	8.3	3.2	0.0	13.3	0.9	0.0	6.7
Cycle Q Clear(g_c), s	8.7	0.0	7.6	16.8	0.0	8.3	9.9	0.0	13.3	14.2	0.0	6.7
Prop In Lane	1.00		0.45	1.00		0.19	1.00		0.40	1.00		0.12
Lane Grp Cap(c), veh/h	383	0	447	417	0	477	426	0	385	278	0	605
V/C Ratio(X)	0.03	0.00	0.51	0.53	0.00	0.55	0.20	0.00	0.78	0.08	0.00	0.46
Avail Cap(c_a), veh/h	383	0	447	417	0	477	426	0	385	278	0	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	11.6	18.0	0.0	11.8	15.0	0.0	13.3	19.6	0.0	11.3
Incr Delay (d2), s/veh	0.1	0.0	4.1	4.9	0.0	4.4	1.1	0.0	14.3	0.6	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	2.3	3.0	0.0	2.8	0.9	0.0	4.1	0.3	0.0	2.4
Lane Grp Delay (d), s/veh	15.3	0.0	15.7	22.9	0.0	16.3	16.1	0.0	27.6	20.1	0.0	13.8
Lane Grp LOS	B		B	C		B	B		C	C		B
Approach Vol, veh/h		239			484			386			300	
Approach Delay, s/veh		15.7			19.3			25.0			14.3	
Approach LOS		B			B			C			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	10.7	18.8	15.3	16.2
Green Ext Time (p_c), s	2.2	0.3	1.2	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	245	75	70	220	55	95	120	30	70	205	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.85	1.00	1.00	0.79
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	184.4	184.4	188.1	188.1	186.3	191.9	183.5	172.3	194.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	349	489	151	308	508	128	543	609	155	674	606	60
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	0.83	0.83	0.81	0.50	0.50	0.49
Sat Flow, veh/h	1084	1368	422	1016	1422	357	1138	1218	309	1195	1211	119
Grp Volume(v), veh/h	11	0	348	76	0	299	103	0	163	76	0	245
Grp Sat Flow(s),veh/h/ln	1084	0	1790	1016	0	1779	1138	0	1527	1195	0	1331
Q Serve(g_s), s	0.6	0.0	10.9	4.5	0.0	9.1	2.6	0.0	1.5	2.5	0.0	7.9
Cycle Q Clear(g_c), s	9.7	0.0	10.9	15.4	0.0	9.1	10.6	0.0	1.5	4.0	0.0	7.9
Prop In Lane	1.00		0.24	1.00		0.20	1.00		0.20	1.00		0.09
Lane Grp Cap(c), veh/h	349	0	639	308	0	635	543	0	764	674	0	665
V/C Ratio(X)	0.03	0.00	0.54	0.25	0.00	0.47	0.19	0.00	0.21	0.11	0.00	0.37
Avail Cap(c_a), veh/h	349	0	639	308	0	635	543	0	764	674	0	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	18.1	24.1	0.0	17.5	5.4	0.0	3.1	10.2	0.0	10.8
Incr Delay (d2), s/veh	0.2	0.0	3.3	1.9	0.0	2.5	0.8	0.0	0.6	0.3	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	5.2	1.3	0.0	4.2	0.5	0.0	0.6	0.7	0.0	2.6
Lane Grp Delay (d), s/veh	21.3	0.0	21.4	26.0	0.0	20.0	6.2	0.0	3.7	10.5	0.0	12.3
Lane Grp LOS	C		C	C		B	A		A	B		B
Approach Vol, veh/h		359			375			266			321	
Approach Delay, s/veh		21.4			21.2			4.7			11.9	
Approach LOS		C			C			A			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	12.9	17.4	12.6	9.9
Green Ext Time (p_c), s	2.6	1.9	2.4	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	165	230	30	160	15	240	185	45	20	160	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.68	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	168.1	186.3	190.0	158.3	186.3	197.6	186.3	181.7	197.6	186.3	190.0	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	445	244	341	252	591	54	511	388	95	429	521	147
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1069	694	969	810	1680	154	1151	953	232	1124	1279	360
Grp Volume(v), veh/h	54	0	429	33	0	190	261	0	250	22	0	223
Grp Sat Flow(s),veh/h/ln	1069	0	1663	810	0	1834	1151	0	1185	1124	0	1639
Q Serve(g_s), s	1.9	0.0	10.9	1.8	0.0	3.6	9.7	0.0	7.6	0.7	0.0	4.5
Cycle Q Clear(g_c), s	5.5	0.0	10.9	12.7	0.0	3.6	14.2	0.0	7.6	8.4	0.0	4.5
Prop In Lane	1.00		0.58	1.00		0.08	1.00		0.20	1.00		0.22
Lane Grp Cap(c), veh/h	445	0	585	252	0	646	511	0	483	429	0	668
V/C Ratio(X)	0.12	0.00	0.73	0.13	0.00	0.29	0.51	0.00	0.52	0.05	0.00	0.33
Avail Cap(c_a), veh/h	605	0	834	373	0	920	858	0	840	768	0	1162
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	13.6	19.2	0.0	11.3	14.7	0.0	10.7	13.9	0.0	9.8
Incr Delay (d2), s/veh	0.1	0.0	2.0	0.2	0.0	0.3	0.8	0.0	0.9	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	3.9	0.3	0.0	1.4	2.6	0.0	2.0	0.2	0.0	1.6
Lane Grp Delay (d), s/veh	13.4	0.0	15.6	19.4	0.0	11.5	15.5	0.0	11.6	13.9	0.0	10.1
Lane Grp LOS	B		B	B		B	B		B	B		B
Approach Vol, veh/h		483			223			511			245	
Approach Delay, s/veh		15.4			12.7			13.6			10.4	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	22.8	22.8	25.5	25.5
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	24.2	24.2	34.2	34.2
Max Q Clear Time (g_c+I1), s	12.9	14.7	16.2	10.4
Green Ext Time (p_c), s	2.4	2.2	3.1	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	70	65	5	40	45	35	255	10	10	245	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	0.82	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	188.2	195.7	194.6	187.1	194.6	187.2	187.2	191.0	184.4	182.9	188.1
Lanes	1	1	1	0	1	0	1	1	0	1	1	0
Cap, veh/h	640	815	581	74	351	370	450	674	27	453	650	120
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.42	0.43	0.43	0.42	0.43	0.43	0.42
Sat Flow, veh/h	1306	1882	1340	25	810	853	1061	1556	62	1073	1501	276
Grp Volume(v), veh/h	65	76	71	97	0	0	38	0	288	11	0	315
Grp Sat Flow(s),veh/h/ln	1306	1882	1340	1689	0	0	1061	0	1617	1073	0	1777
Q Serve(g_s), s	1.9	1.4	1.9	0.0	0.0	0.0	1.5	0.0	7.4	0.4	0.0	7.3
Cycle Q Clear(g_c), s	4.0	1.4	1.9	2.1	0.0	0.0	8.9	0.0	7.4	7.8	0.0	7.3
Prop In Lane	1.00		1.00	0.05		0.51	1.00		0.04	1.00		0.16
Lane Grp Cap(c), veh/h	640	815	581	795	0	0	450	0	701	453	0	770
V/C Ratio(X)	0.10	0.09	0.12	0.12	0.00	0.00	0.08	0.00	0.41	0.02	0.00	0.41
Avail Cap(c_a), veh/h	640	815	581	795	0	0	450	0	701	453	0	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.4	10.0	10.2	10.4	0.0	0.0	14.8	0.0	11.7	14.4	0.0	11.8
Incr Delay (d2), s/veh	0.3	0.2	0.4	0.3	0.0	0.0	0.4	0.0	1.8	0.1	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.6	0.6	0.8	0.0	0.0	0.4	0.0	2.9	0.1	0.0	3.2
Lane Grp Delay (d), s/veh	11.7	10.3	10.6	10.7	0.0	0.0	15.1	0.0	13.5	14.5	0.0	13.4
Lane Grp LOS	B	B	B	B			B		B	B		B
Approach Vol, veh/h		212			97			326			326	
Approach Delay, s/veh		10.8			10.7			13.7			13.4	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	6.0	4.1	10.9	9.8
Green Ext Time (p_c), s	1.2	1.2	2.4	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	165	135	5	85	20	30	225	10	15	255	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	185.8	192.8	188.1	184.4	188.1	188.1	188.1	191.9	185.3	180.6	189.0
Lanes	1	1	0	0	1	0	1	1	0	1	1	0
Cap, veh/h	464	280	230	85	423	98	615	693	31	621	847	101
Arrive On Green	0.30	0.30	0.28	0.30	0.30	0.28	0.54	0.54	0.51	0.54	0.54	0.51
Sat Flow, veh/h	1265	934	767	25	1411	326	1070	1295	58	1107	1582	188
Grp Volume(v), veh/h	60	0	326	119	0	0	33	0	256	16	0	310
Grp Sat Flow(s),veh/h/ln	1265	0	1700	1761	0	0	1070	0	1353	1107	0	1771
Q Serve(g_s), s	1.8	0.0	8.1	0.0	0.0	0.0	0.9	0.0	5.3	0.4	0.0	4.8
Cycle Q Clear(g_c), s	4.3	0.0	8.1	2.4	0.0	0.0	5.7	0.0	5.3	5.7	0.0	4.8
Prop In Lane	1.00		0.45	0.04		0.18	1.00		0.04	1.00		0.11
Lane Grp Cap(c), veh/h	464	0	510	605	0	0	615	0	724	621	0	948
V/C Ratio(X)	0.13	0.00	0.64	0.20	0.00	0.00	0.05	0.00	0.35	0.03	0.00	0.33
Avail Cap(c_a), veh/h	762	0	910	1012	0	0	615	0	724	621	0	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	0.0	14.9	12.8	0.0	0.0	8.0	0.0	6.5	8.1	0.0	6.4
Incr Delay (d2), s/veh	0.1	0.0	1.3	0.2	0.0	0.0	0.2	0.0	1.4	0.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	3.2	1.0	0.0	0.0	0.2	0.0	1.6	0.1	0.0	1.9
Lane Grp Delay (d), s/veh	14.5	0.0	16.3	13.0	0.0	0.0	8.1	0.0	7.8	8.2	0.0	7.3
Lane Grp LOS	B		B	B			A		A	A		A
Approach Vol, veh/h		386			119			289			326	
Approach Delay, s/veh		16.0			13.0			7.9			7.3	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	18.6	18.6	30.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	25.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	10.1	4.4	7.7	7.7
Green Ext Time (p_c), s	2.0	2.2	2.4	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
30: Front St & Hewitt Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	35	25	20	35	10	25	170	20	5	155	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	182.4	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	109	341	215	213	352	91	118	746	84	59	839	78
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	146	993	628	425	1026	266	125	1537	172	12	1727	161
Grp Volume(v), veh/h	76	0	0	71	0	0	234	0	0	189	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	0	1717	0	0	1834	0	0	1900	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	1.8	0.0	0.0	5.0	0.0	0.0	4.0	0.0	0.0
Prop In Lane	0.14		0.36	0.31		0.15	0.12		0.09	0.03		0.08
Lane Grp Cap(c), veh/h	665	0	0	656	0	0	948	0	0	976	0	0
V/C Ratio(X)	0.11	0.00	0.00	0.11	0.00	0.00	0.25	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	665	0	0	656	0	0	948	0	0	976	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.8	0.0	0.0	15.7	0.0	0.0	10.6	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.0	0.6	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	0.0	0.0	0.8	0.0	0.0	2.1	0.0	0.0	1.6	0.0	0.0
Lane Grp Delay (d), s/veh	16.1	0.0	0.0	16.0	0.0	0.0	11.2	0.0	0.0	10.7	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		76			71			234			189	
Approach Delay, s/veh		16.1			16.0			11.2			10.7	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	4.0	3.8	7.0	6.0
Green Ext Time (p_c), s	0.7	0.7	2.5	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
31: N 3rd St/N 3 rd St & Hewitt Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	50	25	15	35	20	15	340	30	30	405	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6	197.6	193.7	197.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	122	379	170	149	338	173	67	829	72	86	834	40
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	180	1104	495	253	985	504	28	1707	148	65	1716	83
Grp Volume(v), veh/h	97	0	0	76	0	0	419	0	0	495	0	0
Grp Sat Flow(s),veh/h/ln	1779	0	0	1742	0	0	1883	0	0	1864	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.0	2.0	0.0	0.0	10.1	0.0	0.0	12.5	0.0	0.0
Prop In Lane	0.16		0.28	0.21		0.29	0.04		0.08	0.07		0.04
Lane Grp Cap(c), veh/h	670	0	0	660	0	0	968	0	0	960	0	0
V/C Ratio(X)	0.14	0.00	0.00	0.12	0.00	0.00	0.43	0.00	0.00	0.52	0.00	0.00
Avail Cap(c_a), veh/h	670	0	0	660	0	0	968	0	0	960	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.0	0.0	0.0	15.8	0.0	0.0	11.9	0.0	0.0	12.5	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.4	0.0	0.0	1.4	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.0	0.0	0.9	0.0	0.0	4.3	0.0	0.0	5.5	0.0	0.0
Lane Grp Delay (d), s/veh	16.4	0.0	0.0	16.1	0.0	0.0	13.3	0.0	0.0	14.4	0.0	0.0
Lane Grp LOS	B			B			B			B		
Approach Vol, veh/h		97			76			419			495	
Approach Delay, s/veh		16.4			16.1			13.3			14.4	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	4.6	4.0	12.1	14.5
Green Ext Time (p_c), s	0.8	0.8	5.9	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	55	20	20	50	435	0	0	465	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		1.00	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	0.0	186.3	0.0	186.3	186.3	197.6	178.8	186.3	0.0	0.0	186.3	197.6
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	333	0	420	149	149	637	1221	0	0	1096	106
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.66	0.66	0.00	0.00	1.00	1.00
Sat Flow, veh/h	0	1863	0	1774	832	832	814	1863	0	0	1671	162
Grp Volume(v), veh/h	0	0	0	60	0	44	54	473	0	0	0	554
Grp Sat Flow(s),veh/h/ln	0	1863	0	1774	0	1664	814	1863	0	0	0	1833
Q Serve(g_s), s	0.0	0.0	0.0	2.0	0.0	1.6	1.7	8.2	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.0	0.0	1.6	1.7	8.2	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	1.00		0.50	1.00		0.00	0.00		0.09
Lane Grp Cap(c), veh/h	0	333	0	420	0	297	637	1221	0	0	0	1202
V/C Ratio(X)	0.00	0.00	0.00	0.14	0.00	0.15	0.08	0.39	0.00	0.00	0.00	0.46
Avail Cap(c_a), veh/h	0	333	0	420	0	297	637	1221	0	0	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	24.4	0.0	24.3	4.4	5.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.7	0.0	1.1	0.3	0.9	0.0	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.9	0.0	0.7	0.3	3.1	0.0	0.0	0.0	0.4
Lane Grp Delay (d), s/veh	0.0	0.0	0.0	25.2	0.0	25.3	4.7	6.5	0.0	0.0	0.0	1.3
Lane Grp LOS				C		C	A	A				A
Approach Vol, veh/h		0			104			527			554	
Approach Delay, s/veh		0.0			25.2			6.3			1.3	
Approach LOS					C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	18.3	18.3	51.7	51.7
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	12.5	12.5	45.9	45.9
Max Q Clear Time (g_c+I1), s	0.0	4.0	10.2	2.0
Green Ext Time (p_c), s	0.0	0.2	8.0	8.3

Intersection Summary	
HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	30	120	95	85	190	225	85	760	50	80	635	50
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	184.0	191.0	190.0	173.4	193.8	193.7	146.2	142.9	191.8	162.2	184.4
Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Cap, veh/h	108	249	197	280	189	224	157	1125	466	155	1249	602
Arrive On Green	0.28	0.26	0.26	0.28	0.26	0.26	0.09	0.38	0.38	0.09	0.38	0.38
Sat Flow, veh/h	939	951	754	1164	724	857	1845	2923	1211	1827	3243	1563
Grp Volume(v), veh/h	33	0	233	92	0	452	92	826	54	87	690	54
Grp Sat Flow(s),veh/h/ln	939	0	1705	1164	0	1581	1845	1462	1211	1827	1622	1563
Q Serve(g_s), s	1.5	0.0	9.4	5.7	0.0	20.9	3.8	19.4	2.3	3.7	13.3	1.8
Cycle Q Clear(g_c), s	22.4	0.0	9.4	15.1	0.0	20.9	3.8	19.4	2.3	3.7	13.3	1.8
Prop In Lane	1.00		0.44	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	0	445	280	0	413	157	1125	466	155	1249	602
V/C Ratio(X)	0.31	0.00	0.52	0.33	0.00	1.09	0.59	0.73	0.12	0.56	0.55	0.09
Avail Cap(c_a), veh/h	108	0	445	280	0	413	157	1125	466	155	1249	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	25.3	30.4	0.0	29.6	35.2	21.1	15.8	35.2	19.2	15.7
Incr Delay (d2), s/veh	1.6	0.0	1.1	0.7	0.0	72.3	15.1	4.3	0.5	13.8	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	4.1	1.7	0.0	16.4	2.3	6.9	0.7	2.2	5.0	0.6
Lane Grp Delay (d), s/veh	41.2	0.0	26.4	31.1	0.0	101.8	50.3	25.3	16.3	49.0	21.0	16.0
Lane Grp LOS	D		C	C		F	D	C	B	D	C	B
Approach Vol, veh/h		266			544			972			831	
Approach Delay, s/veh		28.2			89.9			27.2			23.6	
Approach LOS		C			F			C			C	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		30.0			30.0		13.0	37.0		13.0	37.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		20.9			20.9		6.8	30.8		6.8	30.8	
Max Q Clear Time (g_c+I1), s		24.4			22.9		5.8	21.4		5.7	15.3	
Green Ext Time (p_c), s		0.0			0.0		0.0	4.6		0.0	5.9	

Intersection Summary	
HCM 2010 Ctrl Delay	39.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	45	55	115	50	20	40	795	70	15	1130	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	444	229	280	412	378	154	215	1865	164	327	1892	141
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1318	763	935	1279	1259	513	414	3376	297	594	3424	256
Grp Volume(v), veh/h	76	0	109	125	0	76	43	477	463	16	667	653
Grp Sat Flow(s),veh/h/ln	1318	0	1698	1279	0	1772	414	1863	1810	594	1863	1818
Q Serve(g_s), s	3.6	0.0	3.8	6.5	0.0	2.5	6.5	12.3	12.3	1.3	20.0	20.1
Cycle Q Clear(g_c), s	6.1	0.0	3.8	10.3	0.0	2.5	26.5	12.3	12.3	13.6	20.0	20.1
Prop In Lane	1.00		0.55	1.00		0.29	1.00		0.16	1.00		0.14
Lane Grp Cap(c), veh/h	444	0	509	412	0	532	215	1029	1000	327	1029	1004
V/C Ratio(X)	0.17	0.00	0.21	0.30	0.00	0.14	0.20	0.46	0.46	0.05	0.65	0.65
Avail Cap(c_a), veh/h	444	0	509	412	0	532	215	1029	1000	327	1029	1004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	20.9	24.8	0.0	20.5	21.8	10.8	10.8	14.9	12.5	12.5
Incr Delay (d2), s/veh	0.8	0.0	1.0	1.9	0.0	0.6	2.1	1.5	1.5	0.3	3.2	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	0.0	1.7	2.2	0.0	1.2	0.7	5.2	5.1	0.2	8.7	8.5
Lane Grp Delay (d), s/veh	23.5	0.0	21.9	26.7	0.0	21.0	23.9	12.3	12.3	15.2	15.6	15.8
Lane Grp LOS	C		C	C		C	C	B	B	B	B	B
Approach Vol, veh/h		185			201			983			1336	
Approach Delay, s/veh		22.6			24.6			12.8			15.7	
Approach LOS		C			C			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	50.0	50.0
Change Period (Y+Rc), s	6.0	6.0	5.8	5.8
Max Green Setting (Gmax), s	24.0	24.0	44.2	44.2
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Notes

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	0	0	850	805	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	16	12	12	16
Total Lost time (s)				7.7	6.0	
Lane Util. Factor				0.95	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3539	3433	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3539	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	924	875	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	924	875	0
Turn Type				NA	NA	
Protected Phases				1	2	
Permitted Phases						
Actuated Green, G (s)				36.3	30.0	
Effective Green, g (s)				36.3	30.0	
Actuated g/C Ratio				0.45	0.38	
Clearance Time (s)				7.7	6.0	
Vehicle Extension (s)				0.2	0.2	
Lane Grp Cap (vph)				1605	1287	
v/s Ratio Prot				c0.26	c0.25	
v/s Ratio Perm						
v/c Ratio				0.58	0.68	
Uniform Delay, d1				16.2	21.0	
Progression Factor				1.00	0.04	
Incremental Delay, d2				1.5	1.9	
Delay (s)				17.7	2.8	
Level of Service				B	A	
Approach Delay (s)	0.0			17.7	2.8	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NWL	NWR
Lane Configurations										
Volume (vph)	0	555	0	0	0	0	0	0	0	805
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	16	12	16	16	16	16	13	16	16	16
Total Lost time (s)		7.7								6.0
Lane Util. Factor		0.95								0.88
Frt		1.00								0.85
Flt Protected		1.00								1.00
Satd. Flow (prot)		3539								3158
Flt Permitted		1.00								1.00
Satd. Flow (perm)		3539								3158
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	603	0	0	0	0	0	0	0	875
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	603	0	0	0	0	0	0	0	875
Turn Type		NA								custom
Protected Phases		1								
Permitted Phases										2
Actuated Green, G (s)		36.3								30.0
Effective Green, g (s)		36.3								30.0
Actuated g/C Ratio		0.45								0.38
Clearance Time (s)		7.7								6.0
Vehicle Extension (s)		0.2								0.2
Lane Grp Cap (vph)		1605								1184
v/s Ratio Prot		c0.17								
v/s Ratio Perm										c0.28
v/c Ratio		0.38								0.74
Uniform Delay, d1		14.4								21.6
Progression Factor		1.00								1.77
Incremental Delay, d2		0.7								3.7
Delay (s)		15.1								42.0
Level of Service		B								D
Approach Delay (s)		15.1			0.0		0.0		42.0	
Approach LOS		B			A		A		D	

Intersection Summary			
HCM 2000 Control Delay	31.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.7
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	120	440	65	170	680	125	90	310	120	125	425	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	184.4	177.0	195.6
Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Cap, veh/h	277	1430	211	404	1380	254	283	1044	395	361	977	388
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.41	0.38	0.38	0.41	0.38
Sat Flow, veh/h	631	3173	469	854	3062	563	780	2577	976	913	2412	958
Grp Volume(v), veh/h	130	280	269	185	450	425	98	242	225	136	338	309
Grp Sat Flow(s),veh/h/ln	631	1863	1779	854	1863	1762	780	1863	1690	913	1770	1600
Q Serve(g_s), s	13.2	6.8	6.9	12.5	12.2	12.3	7.7	6.2	6.5	8.8	9.8	10.2
Cycle Q Clear(g_c), s	25.4	6.8	6.9	19.4	12.2	12.3	17.9	6.2	6.5	15.3	9.8	10.2
Prop In Lane	1.00		0.26	1.00		0.32	1.00		0.58	1.00		0.60
Lane Grp Cap(c), veh/h	277	840	802	404	840	794	283	755	685	361	717	648
V/C Ratio(X)	0.47	0.33	0.34	0.46	0.54	0.54	0.35	0.32	0.33	0.38	0.47	0.48
Avail Cap(c_a), veh/h	277	840	802	404	840	794	283	755	685	361	717	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	12.4	12.5	18.7	13.9	13.9	23.7	14.3	14.7	21.2	15.3	15.9
Incr Delay (d2), s/veh	5.6	1.1	1.1	3.7	2.4	2.6	3.3	1.1	1.3	3.0	2.2	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.3	3.0	2.9	2.8	5.4	5.2	1.6	2.7	2.7	2.1	4.2	4.1
Lane Grp Delay (d), s/veh	28.8	13.5	13.6	22.4	16.4	16.5	27.0	15.4	16.0	24.1	17.6	18.4
Lane Grp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		679			1060			565			783	
Approach Delay, s/veh		16.5			17.5			17.6			19.0	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		37.7			37.7			32.4			32.4	
Change Period (Y+Rc), s		6.1			6.1			6.0			6.0	
Max Green Setting (Gmax), s		31.6			31.5			26.4			26.4	
Max Q Clear Time (g_c+I1), s		27.4			21.4			19.9			17.3	
Green Ext Time (p_c), s		3.1			6.5			3.1			3.8	

Intersection Summary												
HCM 2010 Ctrl Delay			17.7									
HCM 2010 LOS			B									

Notes

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE & US 41

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	795	135	0	285	0	0	395	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			2%			0%			6%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3397	1555		1781			1771	1413
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3397	1555		1781			1771	1413
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	864	147	0	310	0	0	429	257
RTOR Reduction (vph)	0	0	0	0	0	83	0	0	0	0	0	47
Lane Group Flow (vph)	0	0	0	0	864	64	0	310	0	0	429	210
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	2%	6%	11%	2%	5%	2%	2%	2%	4%	2%	2%	9%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1490	682		819			726	579
v/s Ratio Prot					c0.25			0.17			c0.24	
v/s Ratio Perm						0.04						0.15
v/c Ratio					0.58	0.09		0.38			0.59	0.36
Uniform Delay, d1					16.9	13.1		14.1			18.4	16.4
Progression Factor					1.00	1.00		0.07			1.00	1.00
Incremental Delay, d2					1.7	0.3		1.3			3.5	1.8
Delay (s)					18.6	13.4		2.3			21.9	18.1
Level of Service					B	B		A			C	B
Approach Delay (s)		0.0			17.8			2.3			20.5	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
110: McCLELLAN AVE/McCLELLEN AVE & US 41

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	860	350	0	0	0	0	285	210	0	395	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	20	20	20	20	20	20
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2006					2359	2006		2359	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2006					2359	2006		2359	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	935	380	0	0	0	0	310	228	0	429	0
RTOR Reduction (vph)	0	0	175	0	0	0	0	0	38	0	0	0
Lane Group Flow (vph)	0	935	205	0	0	0	0	310	190	0	429	0
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1552	880					928	789		1046	
v/s Ratio Prot		c0.26						0.13			c0.18	
v/s Ratio Perm			0.10						0.09			
v/c Ratio		0.60	0.23					0.33	0.24		0.41	
Uniform Delay, d1		17.1	14.0					16.9	16.2		15.1	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		1.7	0.6					1.0	0.7		1.0	
Delay (s)		18.9	14.7					17.9	17.0		1.0	
Level of Service		B	B					B	B		A	
Approach Delay (s)		17.7			0.0			17.5			1.0	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	70	150	20	115	10	145	95	20	10	150	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.79	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	191.9	177.9	167.8	196.6	199.6	192.5	199.6	195.6	184.2	195.6
Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Cap, veh/h	478	147	316	344	479	42	499	311	60	82	803	104
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.33	0.52	0.52	0.50	0.52	0.52	0.50
Sat Flow, veh/h	1258	420	902	1084	1368	120	785	601	117	35	1553	201
Grp Volume(v), veh/h	38	0	239	22	0	136	283	0	0	196	0	0
Grp Sat Flow(s),veh/h/ln	1258	0	1322	1084	0	1488	1503	0	0	1789	0	0
Q Serve(g_s), s	1.3	0.0	8.6	1.0	0.0	3.9	2.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	8.6	9.6	0.0	3.9	5.6	0.0	0.0	3.5	0.0	0.0
Prop In Lane	1.00		0.68	1.00		0.08	0.56		0.08	0.06		0.11
Lane Grp Cap(c), veh/h	478	0	463	344	0	521	870	0	0	988	0	0
V/C Ratio(X)	0.08	0.00	0.52	0.06	0.00	0.26	0.33	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	478	0	463	344	0	521	870	0	0	988	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.8	0.0	15.5	19.3	0.0	14.0	8.3	0.0	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	4.1	0.4	0.0	1.2	1.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.4	0.0	3.1	0.3	0.0	1.5	2.2	0.0	0.0	1.4	0.0	0.0
Lane Grp Delay (d), s/veh	16.2	0.0	19.6	19.6	0.0	15.2	9.3	0.0	0.0	8.3	0.0	0.0
Lane Grp LOS	B		B	B		B	A			A		
Approach Vol, veh/h		277			158			283			196	
Approach Delay, s/veh		19.1			15.8			9.3			8.3	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	35.0	35.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	20.0	30.0	30.0
Max Q Clear Time (g_c+I1), s	10.6	11.6	7.6	5.5
Green Ext Time (p_c), s	1.3	1.2	2.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	30	25	105	10	110	15	140	55	105	200	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	193.7	197.6	178.8	178.8	197.6	178.8	178.8	197.6	178.8	178.8	197.6
Lanes	0	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	78	178	133	318	23	251	742	740	292	743	1084	0
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.61	0.61	0.61	0.61	0.61	0.00
Sat Flow, veh/h	47	988	736	1269	128	1392	1113	1221	482	1118	1788	0
Grp Volume(v), veh/h	65	0	0	114	0	131	16	0	212	114	217	0
Grp Sat Flow(s),veh/h/ln	1772	0	0	1269	0	1520	1113	0	1703	1118	1788	0
Q Serve(g_s), s	0.0	0.0	0.0	4.7	0.0	4.3	0.4	0.0	3.1	2.9	3.1	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	6.4	0.0	4.3	3.4	0.0	3.1	6.0	3.1	0.0
Prop In Lane	0.08		0.42	1.00		0.92	1.00		0.28	1.00		0.00
Lane Grp Cap(c), veh/h	388	0	0	318	0	274	742	0	1032	743	1084	0
V/C Ratio(X)	0.17	0.00	0.00	0.36	0.00	0.48	0.02	0.00	0.21	0.15	0.20	0.00
Avail Cap(c_a), veh/h	817	0	0	632	0	650	742	0	1032	743	1084	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	22.3	0.0	20.6	5.7	0.0	5.0	6.3	5.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.7	0.0	1.3	0.1	0.0	0.5	0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	0.0	1.4	0.0	1.6	0.1	0.0	1.0	0.7	1.0	0.0
Lane Grp Delay (d), s/veh	19.8	0.0	0.0	23.0	0.0	21.9	5.8	0.0	5.4	6.8	5.4	0.0
Lane Grp LOS	B			C		C	A		A	A	A	
Approach Vol, veh/h		65			245			228			331	
Approach Delay, s/veh		19.8			22.4			5.4			5.9	
Approach LOS		B			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	16.1	16.1	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	3.7	8.4	5.4	8.0
Green Ext Time (p_c), s	1.4	1.3	2.9	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	85	495	25	15	685	70	55	15	35	125	5	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	190.0	193.7	197.6	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	0	1	0	1	1	0
Cap, veh/h	243	990	50	417	936	96	225	71	108	318	12	442
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	664	1759	88	842	1663	170	507	247	377	1345	43	1547
Grp Volume(v), veh/h	92	0	565	16	0	821	114	0	0	136	0	184
Grp Sat Flow(s),veh/h/ln	664	0	1847	842	0	1833	1131	0	0	1345	0	1590
Q Serve(g_s), s	8.7	0.0	13.2	0.8	0.0	24.3	2.3	0.0	0.0	6.5	0.0	6.4
Cycle Q Clear(g_c), s	33.1	0.0	13.2	14.1	0.0	24.3	8.7	0.0	0.0	15.2	0.0	6.4
Prop In Lane	1.00		0.05	1.00		0.09	0.53		0.33	1.00		0.97
Lane Grp Cap(c), veh/h	243	0	1040	417	0	1032	403	0	0	318	0	454
V/C Ratio(X)	0.38	0.00	0.54	0.04	0.00	0.80	0.28	0.00	0.00	0.43	0.00	0.41
Avail Cap(c_a), veh/h	256	0	1076	433	0	1068	403	0	0	318	0	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	9.4	13.9	0.0	11.9	20.5	0.0	0.0	27.0	0.0	19.8
Incr Delay (d2), s/veh	1.0	0.0	0.5	0.0	0.0	4.1	1.8	0.0	0.0	4.2	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	0.0	4.9	0.2	0.0	9.9	1.7	0.0	0.0	2.4	0.0	2.7
Lane Grp Delay (d), s/veh	25.9	0.0	10.0	13.9	0.0	16.0	22.3	0.0	0.0	31.2	0.0	22.5
Lane Grp LOS	C		A	B		B	C			C		C
Approach Vol, veh/h		657			837			114			320	
Approach Delay, s/veh		12.2			16.0			22.3			26.2	
Approach LOS		B			B			C			C	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	43.7	43.7	25.0	25.0
Change Period (Y+Rc), s	5.0	5.0	5.4	5.4
Max Green Setting (Gmax), s	40.0	40.0	19.6	19.6
Max Q Clear Time (g_c+I1), s	35.1	26.3	10.7	17.2
Green Ext Time (p_c), s	3.6	8.0	1.4	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
74: 7th St & MAGNETIC ST

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	75	30	55	95	20	20	220	25	20	250	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	199.6	195.1	199.6	194.6	190.8	194.6	200.6	196.6	200.6	194.6	190.8	194.6
Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Cap, veh/h	62	471	182	225	367	71	89	820	88	87	882	16
Arrive On Green	0.36	0.36	0.34	0.36	0.36	0.34	0.50	0.50	0.49	1.00	1.00	0.97
Sat Flow, veh/h	22	1318	509	440	1028	198	67	1640	177	63	1765	31
Grp Volume(v), veh/h	120	0	0	185	0	0	288	0	0	299	0	0
Grp Sat Flow(s),veh/h/ln	1849	0	0	1667	0	0	1884	0	0	1859	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.1	0.0	0.0	5.1	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.04		0.27	0.32		0.12	0.08		0.09	0.07		0.02
Lane Grp Cap(c), veh/h	714	0	0	663	0	0	997	0	0	985	0	0
V/C Ratio(X)	0.17	0.00	0.00	0.28	0.00	0.00	0.29	0.00	0.00	0.30	0.00	0.00
Avail Cap(c_a), veh/h	714	0	0	663	0	0	997	0	0	985	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.6	0.0	0.0	16.1	0.0	0.0	10.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.0	0.0	0.0	0.7	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	0.0	0.0	2.4	0.0	0.0	2.8	0.0	0.0	0.2	0.0	0.0
Lane Grp Delay (d), s/veh	16.1	0.0	0.0	17.2	0.0	0.0	11.0	0.0	0.0	0.8	0.0	0.0
Lane Grp LOS	B			B			B			A		
Approach Vol, veh/h		120			185			288			299	
Approach Delay, s/veh		16.1			17.2			11.0			0.8	
Approach LOS		B			B			B			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0	40.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	24.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	5.1	7.1	8.1	2.0
Green Ext Time (p_c), s	1.1	1.1	2.5	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Notes

HCM 2010 Signalized Intersection Summary
75: Washington St & 7th St

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	435	105	25	440	30	55	100	30	40	185	110
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	197.6	186.3	186.3	197.6	186.3	186.3	197.6	184.2	191.9	203.5
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	317	644	155	257	765	53	380	530	161	522	435	260
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	884	1449	349	824	1722	119	1054	1374	416	1227	1127	673
Grp Volume(v), veh/h	98	0	587	27	0	511	60	0	142	43	0	321
Grp Sat Flow(s),veh/h/ln	884	0	1799	824	0	1841	1054	0	1789	1227	0	1800
Q Serve(g_s), s	6.1	0.0	17.1	1.8	0.0	13.6	2.9	0.0	3.4	1.5	0.0	8.5
Cycle Q Clear(g_c), s	19.7	0.0	17.1	18.9	0.0	13.6	11.4	0.0	3.4	4.9	0.0	8.5
Prop In Lane	1.00		0.19	1.00		0.06	1.00		0.23	1.00		0.37
Lane Grp Cap(c), veh/h	317	0	799	257	0	818	380	0	691	522	0	695
V/C Ratio(X)	0.31	0.00	0.73	0.10	0.00	0.62	0.16	0.00	0.21	0.08	0.00	0.46
Avail Cap(c_a), veh/h	404	0	977	339	0	1000	380	0	691	522	0	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	14.6	22.4	0.0	13.6	18.9	0.0	13.0	14.7	0.0	14.6
Incr Delay (d2), s/veh	0.5	0.0	2.3	0.2	0.0	0.9	0.9	0.0	0.7	0.3	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	0.0	7.0	0.4	0.0	5.4	0.8	0.0	1.4	0.5	0.0	4.0
Lane Grp Delay (d), s/veh	21.7	0.0	16.9	22.6	0.0	14.5	19.7	0.0	13.7	15.0	0.0	16.8
Lane Grp LOS	C		B	C		B	B		B	B		B
Approach Vol, veh/h		685			538			202			364	
Approach Delay, s/veh		17.6			14.9			15.5			16.6	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	33.7	33.7	30.0	30.0
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	34.6	34.6	24.6	24.6
Max Q Clear Time (g_c+I1), s	21.7	20.9	13.4	10.5
Green Ext Time (p_c), s	6.1	6.3	2.5	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	405	35	15	405	10	40	10	35	5	10	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	188.1	188.1	199.6	186.3	193.7	197.6	186.3	186.3	197.6	186.3	178.8	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	443	871	75	413	960	24	552	123	424	526	274	274
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	944	1708	147	912	1882	47	1382	367	1269	1349	821	821
Grp Volume(v), veh/h	11	0	478	16	0	451	43	0	49	5	0	22
Grp Sat Flow(s),veh/h/ln	944	0	1855	912	0	1929	1382	0	1637	1349	0	1642
Q Serve(g_s), s	0.5	0.0	11.9	0.8	0.0	10.5	1.5	0.0	1.4	0.2	0.0	0.6
Cycle Q Clear(g_c), s	11.0	0.0	11.9	12.7	0.0	10.5	2.1	0.0	1.4	1.6	0.0	0.6
Prop In Lane	1.00		0.08	1.00		0.02	1.00		0.78	1.00		0.50
Lane Grp Cap(c), veh/h	443	0	946	413	0	984	552	0	547	526	0	549
V/C Ratio(X)	0.02	0.00	0.51	0.04	0.00	0.46	0.08	0.00	0.09	0.01	0.00	0.04
Avail Cap(c_a), veh/h	443	0	946	413	0	984	552	0	547	526	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	11.3	15.5	0.0	11.0	16.4	0.0	16.0	16.5	0.0	15.7
Incr Delay (d2), s/veh	0.1	0.0	1.9	0.2	0.0	1.5	0.3	0.0	0.3	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	5.2	0.2	0.0	4.6	0.5	0.0	0.6	0.1	0.0	0.3
Lane Grp Delay (d), s/veh	14.6	0.0	13.2	15.7	0.0	12.5	16.7	0.0	16.3	16.6	0.0	15.9
Lane Grp LOS	B		B	B		B	B		B	B		B
Approach Vol, veh/h		489			467			92			27	
Approach Delay, s/veh		13.3			12.6			16.5			16.0	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	41.2	41.2	28.8	28.8
Change Period (Y+Rc), s	5.5	5.5	5.4	5.4
Max Green Setting (Gmax), s	35.7	35.7	23.4	23.4
Max Q Clear Time (g_c+I1), s	13.9	14.7	4.1	3.6
Green Ext Time (p_c), s	6.1	6.0	0.4	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	85	300	35	10	215	30	40	105	15	40	155	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	1.00	1.00	0.99
Adj Sat Flow veh/h/ln	195.7	184.3	191.9	184.4	191.8	195.6	178.0	186.9	190.7	189.1	190.6	200.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	435	563	66	342	572	81	592	666	93	729	568	311
Arrive On Green	0.35	0.35	0.30	0.35	0.35	0.30	0.50	0.50	0.45	0.50	0.50	0.45
Sat Flow, veh/h	1156	1618	189	998	1642	232	1061	1338	188	1268	1142	626
Grp Volume(v), veh/h	92	0	364	11	0	267	43	0	130	43	0	260
Grp Sat Flow(s),veh/h/ln	1156	0	1807	998	0	1873	1061	0	1526	1268	0	1768
Q Serve(g_s), s	3.0	0.0	7.5	0.4	0.0	4.9	1.1	0.0	2.1	0.9	0.0	4.0
Cycle Q Clear(g_c), s	7.9	0.0	7.5	7.9	0.0	4.9	5.2	0.0	2.1	3.0	0.0	4.0
Prop In Lane	1.00		0.10	1.00		0.12	1.00		0.12	1.00		0.35
Lane Grp Cap(c), veh/h	435	0	629	342	0	652	592	0	759	729	0	879
V/C Ratio(X)	0.21	0.00	0.58	0.03	0.00	0.41	0.07	0.00	0.17	0.06	0.00	0.30
Avail Cap(c_a), veh/h	1068	0	1617	888	0	1677	592	0	759	729	0	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	12.1	15.3	0.0	11.3	8.3	0.0	6.3	7.1	0.0	7.0
Incr Delay (d2), s/veh	0.2	0.0	0.8	0.0	0.0	0.4	0.2	0.0	0.5	0.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.0	2.8	0.1	0.0	1.9	0.3	0.0	0.7	0.2	0.0	1.6
Lane Grp Delay (d), s/veh	14.5	0.0	13.0	15.3	0.0	11.7	8.5	0.0	6.8	7.2	0.0	7.8
Lane Grp LOS	B		B	B		B	A		A	A		A
Approach Vol, veh/h		456			278			173			303	
Approach Delay, s/veh		13.3			11.9			7.2			7.7	
Approach LOS		B			B			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	19.3	19.3	26.0	26.0
Change Period (Y+Rc), s	5.7	5.7	5.7	5.7
Max Green Setting (Gmax), s	38.3	38.3	20.3	20.3
Max Q Clear Time (g_c+I1), s	9.9	9.9	7.2	6.0
Green Ext Time (p_c), s	3.1	3.1	1.7	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	135	195	65	10	125	35	65	195	20	30	175	120
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.96	0.98		0.96	0.99		0.98	0.99		0.98
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	197.6	178.8	178.8	197.6	186.3	186.3	197.6	178.8	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	329	371	124	250	359	100	581	916	95	638	566	387
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1170	1372	459	1024	1331	372	1045	1657	172	1084	1024	701
Grp Volume(v), veh/h	147	0	283	11	0	174	71	0	234	33	0	320
Grp Sat Flow(s),veh/h/ln	1170	0	1831	1024	0	1702	1045	0	1829	1084	0	1725
Q Serve(g_s), s	7.6	0.0	8.7	0.6	0.0	5.4	2.6	0.0	4.3	1.1	0.0	6.7
Cycle Q Clear(g_c), s	13.1	0.0	8.7	9.4	0.0	5.4	9.3	0.0	4.3	5.4	0.0	6.7
Prop In Lane	1.00		0.25	1.00		0.22	1.00		0.09	1.00		0.41
Lane Grp Cap(c), veh/h	329	0	495	250	0	460	581	0	1011	638	0	954
V/C Ratio(X)	0.45	0.00	0.57	0.04	0.00	0.38	0.12	0.00	0.23	0.05	0.00	0.34
Avail Cap(c_a), veh/h	409	0	621	321	0	577	581	0	1011	638	0	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	0.0	20.6	24.7	0.0	19.4	10.6	0.0	7.5	8.9	0.0	8.0
Incr Delay (d2), s/veh	1.0	0.0	1.0	0.1	0.0	0.5	0.4	0.0	0.5	0.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.2	0.0	3.8	0.2	0.0	2.1	0.6	0.0	1.7	0.3	0.0	2.5
Lane Grp Delay (d), s/veh	25.7	0.0	21.7	24.7	0.0	19.9	11.0	0.0	8.0	9.0	0.0	9.0
Lane Grp LOS	C		C	C		B	B		A	A		A
Approach Vol, veh/h		430			185			305			353	
Approach Delay, s/veh		23.1			20.2			8.7			9.0	
Approach LOS		C			C			A			A	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	23.5	23.5	42.0	42.0
Change Period (Y+Rc), s	5.8	5.8	5.8	5.8
Max Green Setting (Gmax), s	22.2	22.2	36.2	36.2
Max Q Clear Time (g_c+I1), s	15.1	11.4	11.3	8.7
Green Ext Time (p_c), s	1.9	2.4	3.7	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	15.3
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
79: Front St

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	35	140	0	0	0	105	245	5	0	240	60
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.99	1.00		0.88
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	197.6	186.3	178.8				197.6	186.3	197.6	197.6	186.3	197.6
Lanes	0	1	1				0	1	0	0	1	0
Cap, veh/h	427	198	522				0	0	0	0	0	0
Arrive On Green	0.35	0.35	0.35				0.97	0.97	0.97	0.00	0.00	0.00
Sat Flow, veh/h	1231	570	1502				0	1822	34		-80995	-20171
Grp Volume(v), veh/h	120	0	152				0	0	271		0	326
Grp Sat Flow(s),veh/h/ln	1801	0	1502				0	0	1856		0	-101167
Q Serve(g_s), s	3.3	0.0	5.1				0.0	0.0	70.0		0.0	0.1
Cycle Q Clear(g_c), s	3.3	0.0	5.1				0.0	0.0	70.0		0.0	0.1
Prop In Lane	0.68		1.00				0.00		0.02			0.20
Lane Grp Cap(c), veh/h	625	0	522				0	0	0		0	-145
V/C Ratio(X)	0.19	0.00	0.29				0.00	0.00	0.00		0.00	-2.26
Avail Cap(c_a), veh/h	625	0	522				0	0	0		0	-29916
HCM Platoon Ratio	1.00	1.00	1.00				2.00	2.00	2.00		1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00		0.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	16.6				0.0	0.0	0.0		0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.4				0.0	0.0	0.0		0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	0.0	5.0				0.0	0.0	0.0		0.0	0.0
Lane Grp Delay (d), s/veh	16.7	0.0	18.0				0.0	0.0	0.0		0.0	0.0
Lane Grp LOS	B		B									
Approach Vol, veh/h		272						271			326	
Approach Delay, s/veh		17.4						0.0			0.0	
Approach LOS		B						A			A	

Timer												
Assigned Phs		4					5	2			6	
Phs Duration (G+Y+Rc), s		30.1					39.9	39.9			0.0	
Change Period (Y+Rc), s		5.8					5.8	5.8			5.8	
Max Green Setting (Gmax), s		24.3					7.6	34.1			20.7	
Max Q Clear Time (g_c+I1), s		7.1					0.0	72.0			0.0	
Green Ext Time (p_c), s		1.0					0.0	0.0			0.0	

Intersection Summary												
HCM 2010 Ctrl Delay			5.5									
HCM 2010 LOS			A									

Notes

APPENDIX I

UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

2030 NO-BUILD

AM PEAK HOUR
MID-DAY PEAK HOUR
PM PEAK HOUR

AM PEAK HOUR

HCM Unsignalized Intersection Capacity Analysis
1: Lake Shore Blvd & Peter White Dr

4/24/2014

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	0	0	15	5	0	0	5	25	5	0	15	0
Sign Control		Yield			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	16	5	0	0	5	27	5	0	16	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	57	60	16	73	57	30	16			33		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	57	60	16	73	57	30	16			33		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	99	100	100	100			100		
cM capacity (veh/h)	937	828	1063	901	831	1045	1601			1579		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	16	5	38	16
Volume Left	0	5	5	0
Volume Right	16	0	5	0
cSH	1063	901	1601	1700
Volume to Capacity	0.02	0.01	0.00	0.01
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	8.4	9.0	1.1	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.4	9.0	1.1	0.0
Approach LOS	A	A		

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	15	30	45	35	20	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	33	49	38	22	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	169	33	43	0	-	0
Stage 1	33	-	-	-	-	-
Stage 2	136	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	821	1041	1566	-	-	-
Stage 1	989	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	795	1041	1566	-	-	-
Mov Capacity-2 Maneuver	795	-	-	-	-	-
Stage 1	989	-	-	-	-	-
Stage 2	862	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	4.1	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1566	-	944	-	-
HCM Lane V/C Ratio	0.031	-	0.052	-	-
HCM Control Delay (s)	7.373	0	9	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.097	-	0.164	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	30	25	10	35	20	35	35	25	0	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	82	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	33	27	11	38	22	38	38	27	0	11	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	60	0	0	198	204	46	226	207	49
Stage 1	-	-	-	-	-	-	122	122	-	71	71	-
Stage 2	-	-	-	-	-	-	76	82	-	155	136	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1544	-	-	1544	-	-	761	692	1023	729	690	1020
Stage 1	-	-	-	-	-	-	882	795	-	939	836	-
Stage 2	-	-	-	-	-	-	933	827	-	847	784	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1544	-	-	1544	-	-	725	669	1023	662	667	1020
Mov Capacity-2 Maneuver	-	-	-	-	-	-	725	669	-	662	667	-
Stage 1	-	-	-	-	-	-	859	774	-	915	830	-
Stage 2	-	-	-	-	-	-	905	821	-	764	764	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	1.1	10.2	9.5
HCM LOS			B	A

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	725	772	1544	-	-	1544	-	-	730	1020
HCM Lane V/C Ratio	0.035	0.101	0.025	-	-	0.007	-	-	0.02	0.007
HCM Control Delay (s)	10.1	10.2	7.39	0	-	7.348	0	-	10	8.6
HCM Lane LOS	B	B	A	A		A	A		B	A
HCM 95th %tile Q(veh)	0.109	0.335	0.076	-	-	0.021	-	-	0.061	0.021

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	50	85	35	45	85	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	67	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	92	38	49	92	71

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	226	101
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	125	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1435	-	762	954
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	901	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1435	-	741	954
Mov Capacity-2 Maneuver	-	-	-	-	741	-
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	9.9
HCM LOS			A

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	741	954	-	-	1435	-
HCM Lane V/C Ratio	0.125	0.074	-	-	0.027	-
HCM Control Delay (s)	10.5	9.1	-	-	7.577	0
HCM Lane LOS	B	A			A	A
HCM 95th %tile Q(veh)	0.425	0.239	-	-	0.082	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	5	45	5	10	5	480	50	10	240	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	5	49	5	11	5	522	54	11	261	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	9.7	17.8	10.6
HCM LOS	A	A	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	33%	75%	4%
Vol Thru, %	90%	33%	8%	94%
Vol Right, %	9%	33%	17%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	535	15	60	255
LT Vol	480	5	5	240
Through Vol	50	5	10	5
RT Vol	5	5	45	10
Lane Flow Rate	582	16	65	277
Geometry Grp	1	1	1	1
Degree of Util (X)	0.715	0.027	0.107	0.368
Departure Headway (Hd)	4.426	5.906	5.88	4.775
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	610	604	748
Service Time	2.469	3.906	3.969	2.83
HCM Lane V/C Ratio	0.715	0.026	0.108	0.37
HCM Control Delay	17.8	9.1	9.7	10.6
HCM Lane LOS	C	A	A	B
HCM 95th-tile Q	6.2	0.1	0.4	1.7

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	30	0	5	0	20	225	0	0	155	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	33	0	5	0	22	245	0	0	168	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	462	459	171	478	462	245	174	0	0	245	0	0
Stage 1	171	171	-	288	288	-	-	-	-	-	-	-
Stage 2	291	288	-	190	174	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	510	499	873	498	497	794	1403	-	-	1321	-	-
Stage 1	831	757	-	720	674	-	-	-	-	-	-	-
Stage 2	717	674	-	812	755	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	499	490	873	469	488	794	1403	-	-	1321	-	-
Mov Capacity-2 Maneuver	499	490	-	469	488	-	-	-	-	-	-	-
Stage 1	816	757	-	707	662	-	-	-	-	-	-	-
Stage 2	698	662	-	776	755	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	12.5	0.6	0
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1403	-	-	733	488	1321	-	-
HCM Lane V/C Ratio	0.015	-	-	0.059	0.011	-	-	-
HCM Control Delay (s)	7.606	0	-	10.2	12.5	0	-	-
HCM Lane LOS	A	A		B	B	A		
HCM 95th %tile Q(veh)	0.047	-	-	0.189	0.034	0	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.1
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	38	131	60
Demand Flow Rate, veh/h	39	134	61
Vehicles Circulating, veh/h	50	11	50
Vehicles Exiting, veh/h	61	78	95
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.7	4.3	3.9
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	39	134	61
Cap Entry Lane, veh/h	1075	1118	1075
Entry HV Adj Factor	0.974	0.980	0.984
Flow Entry, veh/h	38	131	60
Cap Entry, veh/h	1047	1096	1058
V/C Ratio	0.036	0.120	0.057
Control Delay, s/veh	3.7	4.3	3.9
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection	
Intersection Delay, s/veh	1.5

Movement	NBL	NBT	SBT	SBR	NEL	NER
Vol, veh/h	5	105	60	10	20	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	114	65	11	22	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	76	0	-	0	196	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	125	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1523	-	-	-	793	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	901	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1523	-	-	-	790	991
Mov Capacity-2 Maneuver	-	-	-	-	790	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	897	-

Approach	NB	SB	NE
HCM Control Delay, s	0.3	0	9.5
HCM LOS			A

Minor Lane / Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	823	1523	-	-	-
HCM Lane V/C Ratio	0.033	0.004	-	-	-
HCM Control Delay (s)	9.5	7.372	0	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.102	0.011	-	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	35	10	5	50	5	30	15	5	5	5	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	5	5	2	2	11	2	2	5	2	2	2	2
Mvmt Flow	11	38	11	5	54	5	33	16	5	5	5	11
Number of Lanes	0	2	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	7.7	7.6	7.6	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	60%	36%	0%	8%	25%
Vol Thru, %	30%	64%	64%	83%	25%
Vol Right, %	10%	0%	36%	8%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	28	28	60	20
LT Vol	15	18	18	50	5
Through Vol	5	0	10	5	10
RT Vol	30	10	0	5	5
Lane Flow Rate	54	30	30	65	22
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.064	0.041	0.037	0.076	0.024
Departure Headway (Hd)	4.224	4.933	4.496	4.178	3.939
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	836	722	792	850	893
Service Time	2.307	2.686	2.248	2.239	2.033
HCM Lane V/C Ratio	0.065	0.042	0.038	0.076	0.025
HCM Control Delay	7.6	7.9	7.4	7.6	7.1
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.1	0.2	0.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	5	25	5	10	35	95
Conflicting Peds, #/hr	10	5	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	19	2	2	10	2
Mvmt Flow	5	27	5	11	38	103

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	200	23	0	0	26	0
Stage 1	21	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Follow-up Headway	3.518	3.471	-	-	2.29	-
Pot Capacity-1 Maneuver	789	1007	-	-	1538	-
Stage 1	1002	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	759	994	-	-	1536	-
Mov Capacity-2 Maneuver	759	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	8.9	0	2
HCM LOS	A		

Minor Lane / Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	1536	-	945	-	-
HCM Lane V/C Ratio	0.025	-	0.035	-	-
HCM Control Delay (s)	7.403	0	8.9	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.076	-	0.107	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	50	130	120	55	100	105
Conflicting Peds, #/hr	0	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-5	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	11	2	4	4	3
Mvmt Flow	54	141	130	60	109	114

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	495	164	0	0	193	0
Stage 1	163	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Follow-up Headway	3.518	3.399	-	-	2.236	-
Pot Capacity-1 Maneuver	534	858	-	-	1368	-
Stage 1	866	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	490	855	-	-	1367	-
Mov Capacity-2 Maneuver	490	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	668	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	3.8
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	490	855	1367	-
HCM Lane V/C Ratio	-	-	0.111	0.165	0.08	-
HCM Control Delay (s)	-	-	13.3	10	7.861	-
HCM Lane LOS			B	B	A	
HCM 95th %tile Q(veh)	-	-	0.372	0.59	0.259	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	45	55	25	85	20	55	20	15	5	30	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	74	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	49	60	27	92	22	60	22	16	5	33	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	114	0	0	109	0	0	272	323	54	269	343	57
Stage 1	-	-	-	-	-	-	155	155	-	158	158	-
Stage 2	-	-	-	-	-	-	117	168	-	111	185	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	1473	-	-	1479	-	-	659	593	1002	662	578	997
Stage 1	-	-	-	-	-	-	832	768	-	828	766	-
Stage 2	-	-	-	-	-	-	875	758	-	882	746	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1473	-	-	1479	-	-	583	565	1002	609	551	997
Mov Capacity-2 Maneuver	-	-	-	-	-	-	583	565	-	609	551	-
Stage 1	-	-	-	-	-	-	809	746	-	805	751	-
Stage 2	-	-	-	-	-	-	789	743	-	819	725	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	1.4	11.3	10.6
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	583	652	1473	-	-	1479	-	-	716
HCM Lane V/C Ratio	0.068	0.089	0.026	-	-	0.018	-	-	0.106
HCM Control Delay (s)	11.6	11.1	7.509	0	-	7.48	0	-	10.6
HCM Lane LOS	B	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.219	0.292	0.08	-	-	0.056	-	-	0.355

Notes

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Intersection	
Intersection Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	40	20	10	80	55	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	22	11	87	60	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	65	0	119	33
Stage 1	-	-	-	-	54	-
Stage 2	-	-	-	-	65	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1535	-	864	1033
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	950	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1535	-	857	1033
Mov Capacity-2 Maneuver	-	-	-	-	857	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	942	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.4
HCM LOS			A

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	880	-	-	1535	-
HCM Lane V/C Ratio	0.08	-	-	0.007	-
HCM Control Delay (s)	9.4	-	-	7.362	0
HCM Lane LOS	A			A	A
HCM 95th %tile Q(veh)	0.261	-	-	0.021	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	15	40	5	50	5	85	165	5	5	125	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	16	43	5	54	5	92	179	5	5	136	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	549	522	141	549	525	182	147	0	0	185	0	0
Stage 1	152	152	-	367	367	-	-	-	-	-	-	-
Stage 2	397	370	-	182	158	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	446	459	907	420	432	852	1435	-	-	1390	-	-
Stage 1	850	772	-	626	597	-	-	-	-	-	-	-
Stage 2	629	620	-	803	754	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	375	425	907	366	400	852	1435	-	-	1390	-	-
Mov Capacity-2 Maneuver	375	425	-	366	400	-	-	-	-	-	-	-
Stage 1	790	769	-	582	555	-	-	-	-	-	-	-
Stage 2	524	576	-	745	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	15.3	2.6	0.3
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1435	-	-	613	415	1390	-	-
HCM Lane V/C Ratio	0.064	-	-	0.115	0.157	0.004	-	-
HCM Control Delay (s)	7.681	0	-	11.6	15.3	7.6	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.206	-	-	0.389	0.552	0.012	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	5	0	5	5	5	50	0	5	20	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	5	0	5	5	5	54	0	5	22	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	106	100	24	106	103	54	27	0	0	54	0	0
Stage 1	35	35	-	65	65	-	-	-	-	-	-	-
Stage 2	71	65	-	41	38	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	873	790	1052	873	787	1013	1587	-	-	1551	-	-
Stage 1	981	866	-	946	841	-	-	-	-	-	-	-
Stage 2	939	841	-	974	863	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	860	785	1052	860	782	1013	1587	-	-	1551	-	-
Mov Capacity-2 Maneuver	860	785	-	860	782	-	-	-	-	-	-	-
Stage 1	978	863	-	943	838	-	-	-	-	-	-	-
Stage 2	925	838	-	960	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.1	0.7	1.2
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1587	-	-	886	883	1551	-	-
HCM Lane V/C Ratio	0.003	-	-	0.018	0.012	0.004	-	-
HCM Control Delay (s)	7.276	0	-	9.1	9.1	7.329	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.01	-	-	0.056	0.037	0.011	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	10	10	5	15	5	10	95	0	5	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	11	11	5	16	5	11	103	0	5	43	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	190	179	43	190	179	103	43	0	0	103	0	0
Stage 1	54	54	-	125	125	-	-	-	-	-	-	-
Stage 2	136	125	-	65	54	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	770	715	1027	770	715	952	1566	-	-	1489	-	-
Stage 1	958	850	-	879	792	-	-	-	-	-	-	-
Stage 2	867	792	-	946	850	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	746	708	1027	747	708	952	1566	-	-	1489	-	-
Mov Capacity-2 Maneuver	746	708	-	747	708	-	-	-	-	-	-	-
Stage 1	951	847	-	873	786	-	-	-	-	-	-	-
Stage 2	838	786	-	921	847	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.9	0.7	0.8
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1566	-	-	818	755	1489	-	-
HCM Lane V/C Ratio	0.007	-	-	0.033	0.036	0.004	-	-
HCM Control Delay (s)	7.315	0	-	9.6	9.9	7.427	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.021	-	-	0.103	0.112	0.011	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	10	15	5	20	5	20	240	10	5	165	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	16	5	22	5	22	261	11	5	179	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	519	511	185	519	511	266	190	0	0	272	0	0
Stage 1	196	196	-	310	310	-	-	-	-	-	-	-
Stage 2	323	315	-	209	201	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	467	466	857	467	466	773	1384	-	-	1291	-	-
Stage 1	806	739	-	700	659	-	-	-	-	-	-	-
Stage 2	689	656	-	793	735	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	439	455	857	442	455	773	1384	-	-	1291	-	-
Mov Capacity-2 Maneuver	439	455	-	442	455	-	-	-	-	-	-	-
Stage 1	791	736	-	687	646	-	-	-	-	-	-	-
Stage 2	649	644	-	763	732	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	12.9	0.6	0.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	633	486	1291	-	-
HCM Lane V/C Ratio	0.016	-	-	0.043	0.067	0.004	-	-
HCM Control Delay (s)	7.643	0	-	10.9	12.9	7.8	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.048	-	-	0.134	0.215	0.013	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	15	20	10	35	5	85	195	5	10	150	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	16	22	11	38	5	92	212	5	11	163	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	614	595	171	611	600	215	179	0	0	217	0	0
Stage 1	193	193	-	399	399	-	-	-	-	-	-	-
Stage 2	421	402	-	212	201	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	404	417	873	406	415	825	1397	-	-	1353	-	-
Stage 1	809	741	-	627	602	-	-	-	-	-	-	-
Stage 2	610	600	-	790	735	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	347	382	873	359	380	825	1397	-	-	1353	-	-
Mov Capacity-2 Maneuver	347	382	-	359	380	-	-	-	-	-	-	-
Stage 1	748	734	-	580	557	-	-	-	-	-	-	-
Stage 2	522	555	-	746	728	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	15.5	2.3	0.4
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1397	-	-	495	397	1353	-	-
HCM Lane V/C Ratio	0.066	-	-	0.099	0.137	0.008	-	-
HCM Control Delay (s)	7.759	0	-	13.1	15.5	7.682	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.212	-	-	0.327	0.471	0.024	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	15	20	20	115	65	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	22	22	125	71	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	244	76	82	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	168	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	744	985	1515	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	732	985	1515	-	-	-
Mov Capacity-2 Maneuver	732	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	848	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.1	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1515	-	858	-	-
HCM Lane V/C Ratio	0.014	-	0.044	-	-
HCM Control Delay (s)	7.411	0	9.4	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.044	-	0.139	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	15	15	125	80	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	16	16	136	87	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	258	90	92	0	-	0
Stage 1	90	-	-	-	-	-
Stage 2	168	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	731	968	1503	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	722	968	1503	-	-	-
Mov Capacity-2 Maneuver	722	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	852	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.8	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1503	-	852	-	-
HCM Lane V/C Ratio	0.011	-	0.032	-	-
HCM Control Delay (s)	7.421	0	9.4	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.033	-	0.099	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	10	5	15	5	5	10	5	5	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	11	5	16	5	5	11	5	5	11	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	59	51	14	57	51	14	16	0	0	16	0	0
Stage 1	24	24	-	24	24	-	-	-	-	-	-	-
Stage 2	35	27	-	33	27	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	937	840	1066	940	840	1066	1602	-	-	1602	-	-
Stage 1	994	875	-	994	875	-	-	-	-	-	-	-
Stage 2	981	873	-	983	873	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	914	835	1066	922	835	1066	1602	-	-	1602	-	-
Mov Capacity-2 Maneuver	914	835	-	922	835	-	-	-	-	-	-	-
Stage 1	991	872	-	991	872	-	-	-	-	-	-	-
Stage 2	955	870	-	964	870	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.2	1.8	1.8
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	960	890	1602	-	-
HCM Lane V/C Ratio	0.003	-	-	0.023	0.031	0.003	-	-
HCM Control Delay (s)	7.255	0	-	8.8	9.2	7.255	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.01	-	-	0.069	0.094	0.01	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	20	5	5	10	5	5	35	5	5	35	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	22	5	5	11	5	5	38	5	5	38	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.2	7.3	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	17%	25%	11%
Vol Thru, %	78%	67%	50%	78%
Vol Right, %	11%	17%	25%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	30	20	45
LT Vol	35	20	10	35
Through Vol	5	5	5	5
RT Vol	5	5	5	5
Lane Flow Rate	49	33	22	49
Geometry Grp	1	1	1	1
Degree of Util (X)	0.055	0.037	0.024	0.055
Departure Headway (Hd)	4.02	4.051	4.026	4.02
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	888	878	883	888
Service Time	2.056	2.102	2.08	2.056
HCM Lane V/C Ratio	0.055	0.038	0.025	0.055
HCM Control Delay	7.3	7.3	7.2	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.1	0.2

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	10	10	10	20	15	5	240	10	15	195	10
Conflicting Peds, #/hr	0	0	3	3	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	30	-	-	50	-	-	74	-	-	71	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	-2	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	4	2	2	2	2	2	3	2
Mvmt Flow	5	11	11	11	22	16	5	261	11	16	212	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	552	539	230	544	538	279	226	0	0	275	0	0
Stage 1	253	253	-	280	280	-	-	-	-	-	-	-
Stage 2	299	286	-	264	258	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.036	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	568	571	852	411	409	742	1342	-	-	1288	-	-
Stage 1	841	781	-	694	645	-	-	-	-	-	-	-
Stage 2	811	767	-	709	662	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	520	559	843	391	400	733	1332	-	-	1276	-	-
Mov Capacity-2 Maneuver	520	559	-	391	400	-	-	-	-	-	-	-
Stage 1	836	769	-	690	641	-	-	-	-	-	-	-
Stage 2	756	762	-	676	652	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	13.3	0.2	0.5
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1332	-	-	520	657	391	485	1276	-	-
HCM Lane V/C Ratio	0.004	-	-	0.007	0.036	0.019	0.086	0.013	-	-
HCM Control Delay (s)	7.714	-	-	12	10.7	14.4	13.1	7.858	-	-
HCM Lane LOS	A			B	B	B	B	A		
HCM 95th %tile Q(veh)	0.012	-	-	0.021	0.111	0.057	0.281	0.039	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	10	15	35	20	5	15	115	10	5	115	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	16	38	22	5	16	125	11	5	125	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	8.1	8.2	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	0%	58%	4%
Vol Thru, %	82%	40%	33%	92%
Vol Right, %	7%	60%	8%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	25	60	125
LT Vol	115	10	20	115
Through Vol	10	15	5	5
RT Vol	15	0	35	5
Lane Flow Rate	152	27	65	136
Geometry Grp	1	1	1	1
Degree of Util (X)	0.177	0.032	0.085	0.158
Departure Headway (Hd)	4.28	4.292	4.67	4.302
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	843	839	772	838
Service Time	2.28	2.295	2.671	2.302
HCM Lane V/C Ratio	0.18	0.032	0.084	0.162
HCM Control Delay	8.2	7.4	8.1	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.1	0.3	0.6

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	20	35	5	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	22	38	5	0	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	43	0	-	0	128	41
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	87	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1566	-	-	-	866	1030
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	936	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1566	-	-	-	848	1030
Mov Capacity-2 Maneuver	-	-	-	-	848	-
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	916	-

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	8.5
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1566	-	-	-	1030
HCM Lane V/C Ratio	0.021	-	-	-	0.011
HCM Control Delay (s)	7.348	0	-	-	8.5
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.064	-	-	-	0.032

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	0	5	0	20	135	10	5	65	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	5	0	22	147	11	5	71	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	296	299	87	294	310	152	103	0	0	158	0	0
Stage 1	98	98	-	196	196	-	-	-	-	-	-	-
Stage 2	198	201	-	98	114	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	656	613	971	658	605	894	1489	-	-	1422	-	-
Stage 1	908	814	-	806	739	-	-	-	-	-	-	-
Stage 2	804	735	-	908	801	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	642	601	971	648	593	894	1489	-	-	1422	-	-
Mov Capacity-2 Maneuver	642	601	-	648	593	-	-	-	-	-	-	-
Stage 1	893	811	-	793	727	-	-	-	-	-	-	-
Stage 2	785	723	-	904	798	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	11.1	0.9	0.4
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1489	-	-	0	593	1422	-	-
HCM Lane V/C Ratio	0.015	-	-	+	0.009	0.004	-	-
HCM Control Delay (s)	7.454	0	-	0	11.1	7.541	0	-
HCM Lane LOS	A	A		A	B	A	A	
HCM 95th %tile Q(veh)	0.044	-	-	+	0.028	0.012	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	80	80	5	5	15	5	25	90	15	5	50	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	87	87	5	5	16	5	27	98	16	5	54	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	92	0	0	332	297	90	351	296	19
Stage 1	-	-	-	-	-	-	264	264	-	30	30	-
Stage 2	-	-	-	-	-	-	68	33	-	321	266	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1593	-	-	1503	-	-	621	615	968	604	616	1059
Stage 1	-	-	-	-	-	-	741	690	-	987	870	-
Stage 2	-	-	-	-	-	-	942	868	-	691	689	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1593	-	-	1503	-	-	539	578	968	493	579	1059
Mov Capacity-2 Maneuver	-	-	-	-	-	-	539	578	-	493	579	-
Stage 1	-	-	-	-	-	-	698	650	-	930	867	-
Stage 2	-	-	-	-	-	-	862	865	-	544	649	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.6	1.5	12.9	11.3
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	597	1593	-	-	1503	-	-	650
HCM Lane V/C Ratio	0.237	0.055	-	-	0.004	-	-	0.125
HCM Control Delay (s)	12.9	7.39	0	-	7.404	0	-	11.3
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.916	0.173	-	-	0.011	-	-	0.428

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	30	35	25	15	15	100	350	110	25	205	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	33	38	27	16	16	109	380	120	27	223	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	951	1002	231	960	951	440	239	0	0	500	0	0
Stage 1	285	285	-	658	658	-	-	-	-	-	-	-
Stage 2	666	717	-	302	293	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	240	242	808	236	260	617	1328	-	-	1064	-	-
Stage 1	722	676	-	453	461	-	-	-	-	-	-	-
Stage 2	449	434	-	707	670	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	204	217	808	183	233	617	1328	-	-	1064	-	-
Mov Capacity-2 Maneuver	204	217	-	183	233	-	-	-	-	-	-	-
Stage 1	663	659	-	416	423	-	-	-	-	-	-	-
Stage 2	386	398	-	624	653	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.8	23.7	1.4	0.9
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1328	-	-	263	808	215	617	1064	-	-
HCM Lane V/C Ratio	0.082	-	-	0.193	0.031	0.228	0.018	0.026	-	-
HCM Control Delay (s)	7.952	-	-	21.9	9.6	26.6	10.9	8.472	-	-
HCM Lane LOS	A			C	A	D	B	A		
HCM 95th %tile Q(veh)	0.267	-	-	0.698	0.097	0.849	0.054	0.079	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	30	5	5	45	60	15	155	10	35	85	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	33	5	5	49	65	16	168	11	38	92	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	438	386	98	400	386	174	103	0	0	179	0	0
Stage 1	174	174	-	207	207	-	-	-	-	-	-	-
Stage 2	264	212	-	193	179	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	529	548	958	560	548	869	1489	-	-	1397	-	-
Stage 1	828	755	-	795	731	-	-	-	-	-	-	-
Stage 2	741	727	-	809	751	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	441	526	958	514	526	869	1489	-	-	1397	-	-
Mov Capacity-2 Maneuver	441	526	-	514	526	-	-	-	-	-	-	-
Stage 1	818	733	-	785	722	-	-	-	-	-	-	-
Stage 2	631	718	-	746	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	11.5	0.6	2.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1489	-	-	530	669	1397	-	-
HCM Lane V/C Ratio	0.011	-	-	0.092	0.179	0.027	-	-
HCM Control Delay (s)	7.444	0	-	12.5	11.5	7.649	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.033	-	-	0.303	0.647	0.084	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	5	10	30	30	25	140	10	15	95	20
Conflicting Peds, #/hr	29	0	4	4	0	29	2	0	4	4	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	6	-	-	-2	-	-	5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	2	2	2	2	2	2	2	7	2	9
Mvmt Flow	11	22	5	11	33	33	27	152	11	16	103	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	450	422	147	430	428	191	154	0	0	192	0	0
Stage 1	176	176	-	241	241	-	-	-	-	-	-	-
Stage 2	274	246	-	189	187	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.126	3.318	3.518	4.018	3.318	2.218	-	-	2.263	-	-
Pot Capacity-1 Maneuver	574	555	915	464	450	824	1426	-	-	1352	-	-
Stage 1	859	760	-	704	652	-	-	-	-	-	-	-
Stage 2	778	719	-	763	700	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	488	505	888	419	410	794	1420	-	-	1346	-	-
Mov Capacity-2 Maneuver	488	505	-	419	410	-	-	-	-	-	-	-
Stage 1	819	730	-	667	618	-	-	-	-	-	-	-
Stage 2	689	681	-	723	673	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	13.1	1.1	0.9
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1420	-	-	533	519	1346	-	-
HCM Lane V/C Ratio	0.019	-	-	0.071	0.147	0.012	-	-
HCM Control Delay (s)	7.585	0	-	12.3	13.1	7.707	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.059	-	-	0.23	0.511	0.037	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	5	15	0	30	5	365	20	10	165	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	-3	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	14	25	2	2	2	11	2	2	2
Mvmt Flow	0	0	5	16	0	33	5	397	22	11	179	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	639	633	182	625	625	408	185	0	0	418	0	0
Stage 1	204	204	-	418	418	-	-	-	-	-	-	-
Stage 2	435	429	-	207	207	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.626	4.225	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	432	441	874	368	360	636	1390	-	-	1141	-	-
Stage 1	826	758	-	576	540	-	-	-	-	-	-	-
Stage 2	645	627	-	760	682	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	405	434	874	361	354	636	1390	-	-	1141	-	-
Mov Capacity-2 Maneuver	405	434	-	361	354	-	-	-	-	-	-	-
Stage 1	822	750	-	573	537	-	-	-	-	-	-	-
Stage 2	609	624	-	747	674	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	12.9	0.1	0.5
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1390	-	-	874	507	1141	-	-
HCM Lane V/C Ratio	0.004	-	-	0.006	0.096	0.01	-	-
HCM Control Delay (s)	7.6	0	-	9.1	12.9	8.185	0	-
HCM Lane LOS	A	A		A	B	A	A	
HCM 95th %tile Q(veh)	0.012	-	-	0.019	0.319	0.029	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	30	40	5	30	10	30	345	10	10	145	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-3	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	33	43	5	33	11	33	375	11	11	158	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	663	647	174	680	658	380	190	0	0	386	0	0
Stage 1	196	196	-	446	446	-	-	-	-	-	-	-
Stage 2	467	451	-	234	212	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	375	390	869	365	384	667	1384	-	-	1172	-	-
Stage 1	806	739	-	591	574	-	-	-	-	-	-	-
Stage 2	576	571	-	769	727	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	333	374	869	314	368	667	1384	-	-	1172	-	-
Mov Capacity-2 Maneuver	333	374	-	314	368	-	-	-	-	-	-	-
Stage 1	782	731	-	573	557	-	-	-	-	-	-	-
Stage 2	517	554	-	690	719	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	15.3	0.6	0.4
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	496	400	1172	-	-
HCM Lane V/C Ratio	0.024	-	-	0.186	0.122	0.009	-	-
HCM Control Delay (s)	7.664	0	-	13.9	15.3	8.1	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.072	-	-	0.678	0.414	0.028	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	50	0	0	0	75	580	5	5	245	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	52	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	54	0	0	0	82	630	5	5	266	16

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	763	1078	141				283	0	0	630	0	0
Stage 1	285	285	-				-	-	-	-	-	-
Stage 2	478	793	-				-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32				2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	341	217	881				1276	-	-	948	-	-
Stage 1	738	674	-				-	-	-	-	-	-
Stage 2	590	398	-				-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	305	# 0	881				1276	-	-	948	-	-
Mov Capacity-2 Maneuver	305	# 0	-				-	-	-	-	-	-
Stage 1	734	# 0	-				-	-	-	-	-	-
Stage 2	532	# 0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	1.1	0.2
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1276	-	-	516	881	948	-	-
HCM Lane V/C Ratio	0.064	-	-	0.067	0.041	0.006	-	-
HCM Control Delay (s)	8.014	0.2	-	12.5	9.3	8.819	0	-
HCM Lane LOS	A	A		B	A	A	A	
HCM 95th %tile Q(veh)	0.204	-	-	0.214	0.129	0.017	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	70	5	0	110	135	10	5	5	60	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	86	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	76	5	0	120	147	11	5	5	65	0	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	307	177	14	215	188	8	27	0	0	11	0	0
Stage 1	144	144	-	30	30	-	-	-	-	-	-	-
Stage 2	163	33	-	185	158	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	645	717	1066	742	707	1074	1587	-	-	1608	-	-
Stage 1	859	778	-	987	870	-	-	-	-	-	-	-
Stage 2	839	868	-	817	767	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	464	683	1066	651	674	1074	1587	-	-	1608	-	-
Mov Capacity-2 Maneuver	464	683	-	651	674	-	-	-	-	-	-	-
Stage 1	853	747	-	980	864	-	-	-	-	-	-	-
Stage 2	620	862	-	701	736	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	11.2	3.6	5.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1587	-	-	595	848	1608	-	-
HCM Lane V/C Ratio	0.007	-	-	0.21	0.314	0.041	-	-
HCM Control Delay (s)	7.284	0	-	12.7	11.2	7.333	-	-
HCM Lane LOS	A	A		B	B	A		
HCM 95th %tile Q(veh)	0.021	-	-	0.787	1.348	0.127	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	85	70	3	0	95	50	5	5	5	40	10	60
Conflicting Peds, #/hr	2	0	3	3	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	4	-	-	-6	-	-	7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	2	3
Mvmt Flow	92	76	3	0	103	54	5	5	5	43	11	65

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	234	158	46	195	188	11	79	0	0	14	0	0
Stage 1	133	133	-	22	22	-	-	-	-	-	-	-
Stage 2	101	25	-	173	166	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Capacity-1 Maneuver	779	774	1031	732	678	1069	1519	-	-	1578	-	-
Stage 1	910	822	-	992	873	-	-	-	-	-	-	-
Stage 2	936	882	-	798	733	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	632	744	1028	654	652	1065	1519	-	-	1578	-	-
Mov Capacity-2 Maneuver	632	744	-	654	652	-	-	-	-	-	-	-
Stage 1	905	796	-	985	867	-	-	-	-	-	-	-
Stage 2	780	876	-	699	710	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	11	2.5	2.7
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	683	753	1578	-	-
HCM Lane V/C Ratio	0.004	-	-	0.251	0.209	0.028	-	-
HCM Control Delay (s)	7.378	0	-	12	11	7.346	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.011	-	-	0.992	0.786	0.085	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	75	150	15	15	95	10	5	0	5	15	5	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	163	16	16	103	11	5	0	5	16	5	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	114	0	0	179	0	0	492	481	171	478	483	109
Stage 1	-	-	-	-	-	-	334	334	-	141	141	-
Stage 2	-	-	-	-	-	-	158	147	-	337	342	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1475	-	-	1397	-	-	487	485	873	498	483	945
Stage 1	-	-	-	-	-	-	680	643	-	862	780	-
Stage 2	-	-	-	-	-	-	844	775	-	677	638	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1475	-	-	1397	-	-	445	453	873	470	451	945
Mov Capacity-2 Maneuver	-	-	-	-	-	-	445	453	-	470	451	-
Stage 1	-	-	-	-	-	-	642	607	-	814	771	-
Stage 2	-	-	-	-	-	-	804	766	-	635	603	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	1	11.2	11
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	590	1475	-	-	1397	-	-	648
HCM Lane V/C Ratio	0.018	0.055	-	-	0.012	-	-	0.075
HCM Control Delay (s)	11.2	7.583	-	-	7.607	0	-	11
HCM Lane LOS	B	A			A	A		B
HCM 95th %tile Q(veh)	0.056	0.175	-	-	0.035	-	-	0.244

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	155	70	30	75	5	135	45	95	0	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	168	76	33	82	5	147	49	103	0	5	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	245	0	0	362	359	207	432	394	84
Stage 1	-	-	-	-	-	-	207	207	-	149	149	-
Stage 2	-	-	-	-	-	-	155	152	-	283	245	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1509	-	-	1321	-	-	594	568	833	534	542	975
Stage 1	-	-	-	-	-	-	795	731	-	854	774	-
Stage 2	-	-	-	-	-	-	847	772	-	724	703	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1509	-	-	1321	-	-	574	553	833	428	528	975
Mov Capacity-2 Maneuver	-	-	-	-	-	-	574	553	-	428	528	-
Stage 1	-	-	-	-	-	-	795	731	-	854	754	-
Stage 2	-	-	-	-	-	-	814	752	-	592	703	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.1	15.5	10.3
HCM LOS			C	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	639	1509	-	-	1321	-	-	685
HCM Lane V/C Ratio	0.468	-	-	-	0.025	-	-	0.016
HCM Control Delay (s)	15.5	0	-	-	7.794	0	-	10.3
HCM Lane LOS	C	A			A	A		B
HCM 95th %tile Q(veh)	2.491	0	-	-	0.076	-	-	0.048

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	5	115	5	105	5	285	145	80	110	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Yield	Yield	Yield	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	7	-	-	-4	-	-	8	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	33	2	14	2	33	2	2	6	2	6	2	2
Mvmt Flow	5	5	5	125	5	114	5	310	158	87	120	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	372	370	0	547	313	63
Stage 1	-	-	-	0	0	-	313	313	-
Stage 2	-	-	-	372	370	-	234	0	-
Follow-up Headway	-	-	-	3.518	4.054	-	3.554	4.018	3.318
Pot Capacity-1 Maneuver	-	-	-	496	469	-	469	624	1005
Stage 1	-	-	-	-	-	-	714	680	-
Stage 2	-	-	-	550	520	-	-	-	-
Time blocked-Platoon, %		-	-						
Mov Capacity-1 Maneuver	-	-	-	423	469	-	-	624	1005
Mov Capacity-2 Maneuver	-	-	-	423	469	-	-	624	-
Stage 1	-	-	-	-	-	-	714	680	-
Stage 2	-	-	-	453	520	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	+	+
HCM LOS		-	-

Minor Lane / Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	-	-	-	+
HCM Lane V/C Ratio	+	-	-	-	+
HCM Control Delay (s)	+	-	-	-	+
HCM Lane LOS	+				+
HCM 95th %tile Q(veh)	+	-	-	-	+

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	25	5	95	15	5	5	15	225	15	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	5	103	16	5	5	16	245	16	16	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	209	321	16	214	198	139	16	0	0	261	0	0
Stage 1	49	49	-	149	149	-	-	-	-	-	-	-
Stage 2	160	272	-	65	49	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	748	596	1063	743	698	909	1602	-	-	1303	-	-
Stage 1	964	854	-	854	774	-	-	-	-	-	-	-
Stage 2	842	685	-	946	854	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	721	586	1063	704	687	909	1602	-	-	1303	-	-
Mov Capacity-2 Maneuver	721	586	-	704	687	-	-	-	-	-	-	-
Stage 1	960	844	-	851	771	-	-	-	-	-	-	-
Stage 2	816	682	-	900	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	11.2	0.1	3.9
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	633	709	1303	-	-
HCM Lane V/C Ratio	0.003	-	-	0.052	0.176	0.013	-	-
HCM Control Delay (s)	7.255	0	-	11	11.2	7.798	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.01	-	-	0.163	0.637	0.038	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	5	5	0	10	0	240	0	10	125	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	5	5	0	11	0	261	0	11	136	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	429	424	141	429	429	261	147	0	0	261	0	0
Stage 1	163	163	-	261	261	-	-	-	-	-	-	-
Stage 2	266	261	-	168	168	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	536	522	907	536	518	778	1435	-	-	1303	-	-
Stage 1	839	763	-	744	692	-	-	-	-	-	-	-
Stage 2	739	692	-	834	759	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	525	517	907	525	513	778	1435	-	-	1303	-	-
Mov Capacity-2 Maneuver	525	517	-	525	513	-	-	-	-	-	-	-
Stage 1	839	756	-	744	692	-	-	-	-	-	-	-
Stage 2	729	692	-	816	752	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	10.5	0	0.5
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1435	-	-	607	670	1303	-	-
HCM Lane V/C Ratio	-	-	-	0.027	0.024	0.008	-	-
HCM Control Delay (s)	0	-	-	11.1	10.5	7.786	0	-
HCM Lane LOS	A			B	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.083	0.075	0.025	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	55	90	5	10	150	25	5	40	5	10	10	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	98	5	11	163	27	5	43	5	11	11	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	190	0	0	103	0	0	432	432	101	443	421	177
Stage 1	-	-	-	-	-	-	220	220	-	198	198	-
Stage 2	-	-	-	-	-	-	212	212	-	245	223	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1384	-	-	1489	-	-	534	516	954	525	524	866
Stage 1	-	-	-	-	-	-	782	721	-	804	737	-
Stage 2	-	-	-	-	-	-	790	727	-	759	719	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1384	-	-	1489	-	-	494	488	954	467	496	866
Mov Capacity-2 Maneuver	-	-	-	-	-	-	494	488	-	467	496	-
Stage 1	-	-	-	-	-	-	746	688	-	767	731	-
Stage 2	-	-	-	-	-	-	757	721	-	674	686	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.4	12.8	11.5
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	514	1384	-	-	1489	-	-	594
HCM Lane V/C Ratio	0.106	0.043	-	-	0.007	-	-	0.064
HCM Control Delay (s)	12.8	7.719	0	-	7.436	0	-	11.5
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.353	0.135	-	-	0.022	-	-	0.205

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	50	25	10	50	25	110	175	10	15	60	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	54	27	11	54	27	120	190	11	16	65	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	587	551	79	587	560	196	92	0	0	201	0	0
Stage 1	111	111	-	435	435	-	-	-	-	-	-	-
Stage 2	476	440	-	152	125	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	421	442	981	421	437	845	1503	-	-	1371	-	-
Stage 1	894	804	-	600	580	-	-	-	-	-	-	-
Stage 2	570	578	-	850	792	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	337	397	981	339	393	845	1503	-	-	1371	-	-
Mov Capacity-2 Maneuver	337	397	-	339	393	-	-	-	-	-	-	-
Stage 1	814	794	-	546	528	-	-	-	-	-	-	-
Stage 2	450	526	-	761	782	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.1	14.9	2.8	1.1
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1503	-	-	437	456	1371	-	-
HCM Lane V/C Ratio	0.08	-	-	0.261	0.203	0.012	-	-
HCM Control Delay (s)	7.602	0	-	16.1	14.9	7.657	0	-
HCM Lane LOS	A	A		C	B	A	A	
HCM 95th %tile Q(veh)	0.259	-	-	1.034	0.75	0.036	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	50	5	5	50	55	1045	10	40	425	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	340	-	-	99	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	54	5	5	54	60	1136	11	43	462	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1247	1823	239	1582	1826	573	478	0	0	1147	0	0
Stage 1	557	557	-	1261	1261	-	-	-	-	-	-	-
Stage 2	690	1266	-	321	565	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	130	76	762	73	76	463	1081	-	-	605	-	-
Stage 1	482	510	-	180	240	-	-	-	-	-	-	-
Stage 2	401	238	-	665	506	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	98	67	762	58	67	463	1081	-	-	605	-	-
Mov Capacity-2 Maneuver	98	67	-	58	67	-	-	-	-	-	-	-
Stage 1	455	474	-	170	227	-	-	-	-	-	-	-
Stage 2	326	225	-	567	470	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.2	27.7	0.4	1
HCM LOS	C	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1081	-	-	268	223	605	-	-
HCM Lane V/C Ratio	0.055	-	-	0.264	0.292	0.072	-	-
HCM Control Delay (s)	8.525	-	-	23.2	27.7	11.411	-	-
HCM Lane LOS	A			C	D	B		
HCM 95th %tile Q(veh)	0.175	-	-	1.031	1.171	0.232	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Vol, veh/h	5	0	5	25	0	55	0	160	10	15	75	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	27	0	60	0	174	11	16	82	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	323	299	82	296	293	179	82	0	0	185	0	0
Stage 1	114	114	-	179	179	-	-	-	-	-	-	-
Stage 2	209	185	-	117	114	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	630	613	978	656	618	864	1515	-	-	1390	-	-
Stage 1	891	801	-	823	751	-	-	-	-	-	-	-
Stage 2	793	747	-	888	801	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	581	606	978	646	611	864	1515	-	-	1390	-	-
Mov Capacity-2 Maneuver	581	606	-	646	611	-	-	-	-	-	-	-
Stage 1	891	791	-	823	751	-	-	-	-	-	-	-
Stage 2	738	747	-	872	791	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	10	10.2	0	1.3
HCM LOS	B	B		

Minor Lane / Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1515	-	-	782	729	1390	-	-
HCM Lane V/C Ratio	-	-	-	0.111	0.015	0.012	-	-
HCM Control Delay (s)	0	-	-	10.2	10	7.621	0	-
HCM Lane LOS	A			B	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.374	0.045	0.036	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	40	10	10	120	45	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	11	11	130	49	65

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	234	82	114	0	-	0
Stage 1	82	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	754	978	1475	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	748	978	1475	-	-	-
Mov Capacity-2 Maneuver	748	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	869	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	9.9	0.6	0
HCM LOS	A		

Minor Lane / Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1475	-	785	-	-
HCM Lane V/C Ratio	0.007	-	0.069	-	-
HCM Control Delay (s)	7.459	0	9.9	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.022	-	0.223	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	20	40	60	10	10	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	43	65	11	11	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	76	0	-	0	158	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	87	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1523	-	-	-	833	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	936	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1523	-	-	-	821	991
Mov Capacity-2 Maneuver	-	-	-	-	821	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	922	-

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	9
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1523	-	-	-	947
HCM Lane V/C Ratio	0.014	-	-	-	0.052
HCM Control Delay (s)	7.398	0	-	-	9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.043	-	-	-	0.163

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Vol, veh/h	345	100	10	105	35	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	1000	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	6	40	18	28	25
Mvmt Flow	375	109	11	114	38	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	484	0	508	242
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	79	-
Follow-up Headway	-	-	2.6	-	3.78	3.55
Pot Capacity-1 Maneuver	-	-	849	-	411	684
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	856	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	849	-	406	684
Mov Capacity-2 Maneuver	-	-	-	-	406	-
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	845	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0.8	13.6
HCM LOS			B

Minor Lane / Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	849	-	476
HCM Lane V/C Ratio	-	-	0.013	-	0.126
HCM Control Delay (s)	-	-	9.295	-	13.6
HCM Lane LOS			A		B
HCM 95th %tile Q(veh)	-	-	0.039	-	0.427

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	0	5	10	20	25	15	185	0	0	95	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	84	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	11	22	27	16	201	0	0	103	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	367	343	109	345	348	201	114	0	0	201	0	0
Stage 1	109	109	-	234	234	-	-	-	-	-	-	-
Stage 2	258	234	-	111	114	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	589	579	945	609	576	840	1475	-	-	1371	-	-
Stage 1	896	805	-	769	711	-	-	-	-	-	-	-
Stage 2	747	711	-	894	801	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	548	572	945	600	569	840	1475	-	-	1371	-	-
Mov Capacity-2 Maneuver	548	572	-	600	569	-	-	-	-	-	-	-
Stage 1	885	805	-	760	702	-	-	-	-	-	-	-
Stage 2	692	702	-	889	801	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	10.7	0.6	0
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1475	-	-	694	600	686	1371	-	-
HCM Lane V/C Ratio	0.011	-	-	0.016	0.012	0.077	-	-	-
HCM Control Delay (s)	7.468	0	-	10.3	11.1	10.7	0	-	-
HCM Lane LOS	A	A		B	B	B	A		
HCM 95th %tile Q(veh)	0.034	-	-	0.048	0.037	0.248	0	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	50	20	40	5	10	10	55	465	15	15	260	45
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	108	-	-	60	-	-	120	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	2	2	14	18	2	2	4	2	2	3	7
Mvmt Flow	54	22	43	5	11	11	60	505	16	16	283	49

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	986	983	310	1007	999	517	333	0	0	523	0	0
Stage 1	341	341	-	634	634	-	-	-	-	-	-	-
Stage 2	645	642	-	373	365	-	-	-	-	-	-	-
Follow-up Headway	3.644	4.018	3.318	3.626	4.162	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	214	249	730	209	228	558	1226	-	-	1043	-	-
Stage 1	646	639	-	448	449	-	-	-	-	-	-	-
Stage 2	438	469	-	624	596	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	191	233	727	173	213	556	1223	-	-	1041	-	-
Mov Capacity-2 Maneuver	191	233	-	173	213	-	-	-	-	-	-	-
Stage 1	614	629	-	426	427	-	-	-	-	-	-	-
Stage 2	397	446	-	556	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.9	19.5	0.8	0.4
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1223	-	-	191	336	173	291	1041	-	-
HCM Lane V/C Ratio	0.049	-	-	0.19	0.248	0.021	0.081	0.016	-	-
HCM Control Delay (s)	8.095	-	-	28.2	19.2	26.3	18.5	8.513	-	-
HCM Lane LOS	A			D	C	D	C	A		
HCM 95th %tile Q(veh)	0.154	-	-	0.679	0.96	0.064	0.262	0.048	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	10	10	15	5	35	30	545	25	60	175	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	6	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	11	11	16	5	38	33	592	27	65	190	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	696	1017	106	902	1013	310	212	0	0	620	0	0
Stage 1	332	332	-	671	671	-	-	-	-	-	-	-
Stage 2	364	685	-	231	342	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	328	236	928	233	237	686	1356	-	-	956	-	-
Stage 1	655	643	-	412	453	-	-	-	-	-	-	-
Stage 2	627	447	-	751	637	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	278	210	928	202	211	686	1356	-	-	956	-	-
Mov Capacity-2 Maneuver	278	210	-	202	211	-	-	-	-	-	-	-
Stage 1	631	593	-	397	436	-	-	-	-	-	-	-
Stage 2	563	430	-	672	588	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.1	16.6	0.5	2.3
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1356	-	-	312	369	956	-	-
HCM Lane V/C Ratio	0.024	-	-	0.122	0.162	0.068	-	-
HCM Control Delay (s)	7.72	0.1	-	18.1	16.6	9.041	0.2	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.074	-	-	0.412	0.572	0.219	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	55	0	25	5	0	5	30	470	0	5	175	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	244	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	0	27	5	0	5	33	511	0	5	190	76

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	560	815	133	682	853	255	266	0	0	511	0	0
Stage 1	239	239	-	576	576	-	-	-	-	-	-	-
Stage 2	321	576	-	106	277	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	411	310	892	336	295	744	1295	-	-	1050	-	-
Stage 1	743	706	-	470	500	-	-	-	-	-	-	-
Stage 2	665	500	-	888	680	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	395	297	892	315	283	744	1295	-	-	1050	-	-
Mov Capacity-2 Maneuver	395	297	-	315	283	-	-	-	-	-	-	-
Stage 1	716	702	-	453	482	-	-	-	-	-	-	-
Stage 2	636	482	-	856	676	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	13.3	0.6	0.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1295	-	-	395	892	443	1050	-	-
HCM Lane V/C Ratio	0.025	-	-	0.151	0.03	0.025	0.005	-	-
HCM Control Delay (s)	7.852	0.1	-	15.7	9.2	13.3	8.446	0	-
HCM Lane LOS	A	A		C	A	B	A	A	
HCM 95th %tile Q(veh)	0.077	-	-	0.528	0.094	0.075	0.016	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	55	90	40	30	30	30	30	410	65	10	140	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	5	8	12	2	2	2	2	8	2	15	19
Mvmt Flow	60	98	43	33	33	33	33	446	71	11	152	16
Number of Lanes	1	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	11.7	10.8	13.7	11.3
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	68%	0%	69%	0%	50%	0%	100%	76%
Vol Right, %	0%	0%	32%	0%	31%	0%	50%	0%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	273	202	55	130	30	60	10	93	62
LT Vol	0	273	137	0	90	0	30	0	93	47
Through Vol	0	0	65	0	40	0	30	0	0	15
RT Vol	30	0	0	55	0	30	0	10	0	0
Lane Flow Rate	33	297	219	60	141	33	65	11	101	67
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.06	0.508	0.367	0.123	0.264	0.071	0.124	0.022	0.2	0.13
Departure Headway (Hd)	6.663	6.158	6.033	7.419	6.737	7.858	6.833	7.389	7.106	7.002
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	536	585	594	482	531	454	522	483	503	510
Service Time	4.417	3.911	3.786	5.186	4.503	5.635	4.609	5.162	4.879	4.775
HCM Lane V/C Ratio	0.062	0.508	0.369	0.124	0.266	0.073	0.125	0.023	0.201	0.131
HCM Control Delay	9.8	15.1	12.3	11.2	11.9	11.2	10.6	10.3	11.7	10.8
HCM Lane LOS	A	C	B	B	B	B	B	B	B	B
HCM 95th-tile Q	0.2	2.9	1.7	0.4	1.1	0.2	0.4	0.1	0.7	0.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	0	0	5	0	150	0	350	15	80	110	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	42	45	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	5	-	-	1	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	2	2	2	2	6	2	3	13	38
Mvmt Flow	5	0	0	5	0	163	0	380	16	87	120	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	485	692	64	625	684	202	121	0	0	398	0	0
Stage 1	294	294	-	390	390	-	-	-	-	-	-	-
Stage 2	191	398	-	235	294	-	-	-	-	-	-	-
Follow-up Headway	3.62	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.23	-	-
Pot Capacity-1 Maneuver	480	410	992	310	306	783	1464	-	-	1150	-	-
Stage 1	696	702	-	543	544	-	-	-	-	-	-	-
Stage 2	789	642	-	700	616	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	356	378	989	291	282	780	1460	-	-	1147	-	-
Mov Capacity-2 Maneuver	356	378	-	291	282	-	-	-	-	-	-	-
Stage 1	696	648	-	542	543	-	-	-	-	-	-	-
Stage 2	623	641	-	645	569	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	11.1	0	3.5
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1460	-	-	356	0	291	766	1147	-	-
HCM Lane V/C Ratio	-	-	-	0.015	+	0.012	0.215	0.076	-	-
HCM Control Delay (s)	0	-	-	15.3	0	17.5	11	8.396	-	-
HCM Lane LOS	A			C	A	C	B	A		
HCM 95th %tile Q(veh)	0	-	-	0.046	+	0.038	0.814	0.246	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	315	105	90	230	5	25	0	70	5	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Yield	Yield	Yield
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	342	114	98	250	5	27	0	76	5	5	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	255	0	0	457	0	0	858	861	399
Stage 1	-	-	-	-	-	-	410	410	-
Stage 2	-	-	-	-	-	-	448	451	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1310	-	-	1104	-	-	277	293	651
Stage 1	-	-	-	-	-	-	619	595	-
Stage 2	-	-	-	-	-	-	590	571	-
Time blocked-Platoon, %		-	-		-	-			
Mov Capacity-1 Maneuver	1310	-	-	1104	-	-	254	261	651
Mov Capacity-2 Maneuver	-	-	-	-	-	-	254	261	-
Stage 1	-	-	-	-	-	-	616	592	-
Stage 2	-	-	-	-	-	-	529	512	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	2.4	15
HCM LOS			C

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	461	1310	-	-	1104	-	-
HCM Lane V/C Ratio	0.224	0.004	-	-	0.089	-	-
HCM Control Delay (s)	15	7.76	0	-	8.578	0	-
HCM Lane LOS	C	A	A		A	A	
HCM 95th %tile Q(veh)	0.85	0.012	-	-	0.291	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	85	15	5	260	160	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	16	5	283	174	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	486	193	212	0	-	0
Stage 1	193	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	540	849	1358	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	538	849	1358	-	-	-
Mov Capacity-2 Maneuver	538	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	0.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1358	-	569	-	-
HCM Lane V/C Ratio	0.004	-	0.191	-	-
HCM Control Delay (s)	7.662	0	12.8	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.012	-	0.7	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	10	5	5	10	25	295	5	15	200	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	11	5	5	11	27	321	5	16	217	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	644	638	226	644	644	323	234	0	0	326	0	0
Stage 1	258	258	-	378	378	-	-	-	-	-	-	-
Stage 2	386	380	-	266	266	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	386	394	813	386	391	718	1333	-	-	1234	-	-
Stage 1	747	694	-	644	615	-	-	-	-	-	-	-
Stage 2	637	614	-	739	689	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	365	378	813	365	376	718	1333	-	-	1234	-	-
Mov Capacity-2 Maneuver	365	378	-	365	376	-	-	-	-	-	-	-
Stage 1	728	684	-	628	600	-	-	-	-	-	-	-
Stage 2	606	599	-	712	679	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	12.7	0.6	0.5
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1333	-	-	510	489	1234	-	-
HCM Lane V/C Ratio	0.02	-	-	0.043	0.044	0.013	-	-
HCM Control Delay (s)	7.757	0	-	12.4	12.7	7.956	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.062	-	-	0.133	0.139	0.04	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	15	20	0	95	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	22	0	103	87	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	190	87	87	0	-	0
Stage 1	87	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	799	971	1509	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	799	971	1509	-	-	-
Mov Capacity-2 Maneuver	799	-	-	-	-	-
Stage 1	936	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1509	-	889	-	-
HCM Lane V/C Ratio	-	-	0.043	-	-
HCM Control Delay (s)	0	-	9.2	-	-
HCM Lane LOS	A		A		
HCM 95th %tile Q(veh)	0	-	0.134	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

MID-DAY PEAK HOUR

HCM Unsignalized Intersection Capacity Analysis
1: Lake Shore Blvd & Peter White Dr

4/24/2014

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	5	0	20	10	0	0	20	120	5	0	80	5
Sign Control		Yield			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	0	22	11	0	0	22	130	5	0	87	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	266	269	90	288	269	133	92			136		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	266	269	90	288	269	133	92			136		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	98	98	100	100	99			100		
cM capacity (veh/h)	679	628	968	642	628	916	1502			1448		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	27	11	158	92
Volume Left	5	11	22	0
Volume Right	22	0	5	5
cSH	892	642	1502	1700
Volume to Capacity	0.03	0.02	0.01	0.05
Queue Length 95th (ft)	2	1	1	0
Control Delay (s)	9.2	10.7	1.1	0.0
Lane LOS	A	B	A	
Approach Delay (s)	9.2	10.7	1.1	0.0
Approach LOS	A	B		

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	24.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	40	35	50	115	60	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	38	54	125	65	71

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	335	101	136	0	-	0
Stage 1	101	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	660	954	1448	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	634	954	1448	-	-	-
Mov Capacity-2 Maneuver	634	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	773	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	2.3	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1448	-	752	-	-
HCM Lane V/C Ratio	0.038	-	0.108	-	-
HCM Control Delay (s)	7.583	0	10.4	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.117	-	0.363	-	-

Notes

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Intersection	
Intersection Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	30	45	40	35	10	45	25	40	10	30	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	82	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	33	49	43	38	11	49	27	43	11	33	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	82	0	0	237	226	57	255	244	43
Stage 1	-	-	-	-	-	-	90	90	-	130	130	-
Stage 2	-	-	-	-	-	-	147	136	-	125	114	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1558	-	-	1515	-	-	717	673	1009	698	658	1027
Stage 1	-	-	-	-	-	-	917	820	-	874	789	-
Stage 2	-	-	-	-	-	-	856	784	-	879	801	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1558	-	-	1515	-	-	657	646	1009	627	632	1027
Mov Capacity-2 Maneuver	-	-	-	-	-	-	657	646	-	627	632	-
Stage 1	-	-	-	-	-	-	907	811	-	864	766	-
Stage 2	-	-	-	-	-	-	783	761	-	804	792	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	3.5	10.3	10.5
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	657	791	1558	-	-	1515	-	-	659	1027
HCM Lane V/C Ratio	0.05	0.11	0.01	-	-	0.029	-	-	0.074	0.011
HCM Control Delay (s)	10.8	10.1	7.335	0	-	7.446	0	-	10.9	8.5
HCM Lane LOS	B	B	A	A		A	A		B	A
HCM 95th %tile Q(veh)	0.156	0.369	0.032	-	-	0.089	-	-	0.24	0.032

Notes
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Intersection	
Intersection Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	50	95	80	70	100	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	67	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	103	87	76	109	82

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	158	0	356	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	250	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1422	-	642	948
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	792	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1422	-	601	948
Mov Capacity-2 Maneuver	-	-	-	-	601	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	741	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.1	11
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	601	948	-	-	1422	-
HCM Lane V/C Ratio	0.181	0.086	-	-	0.061	-
HCM Control Delay (s)	12.3	9.2	-	-	7.696	0
HCM Lane LOS	B	A			A	A
HCM 95th %tile Q(veh)	0.655	0.282	-	-	0.195	-

Notes

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Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	5	65	5	15	5	100	95	20	380	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	5	71	5	16	5	109	103	22	413	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9.4	9.1	12.8
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	33%	76%	5%
Vol Thru, %	50%	33%	6%	94%
Vol Right, %	47%	33%	18%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	200	15	85	405
LT Vol	100	5	5	380
Through Vol	95	5	15	5
RT Vol	5	5	65	20
Lane Flow Rate	217	16	92	440
Geometry Grp	1	1	1	1
Degree of Util (X)	0.267	0.024	0.14	0.546
Departure Headway (Hd)	4.426	5.403	5.445	4.465
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	809	657	655	806
Service Time	2.466	3.478	3.507	2.498
HCM Lane V/C Ratio	0.268	0.024	0.14	0.546
HCM Control Delay	9.1	8.6	9.4	12.8
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.1	0.1	0.5	3.4

Notes

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Intersection	
Intersection Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	10	55	10	5	0	35	400	0	5	355	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	11	60	11	5	0	38	435	0	5	386	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	916	913	391	949	919	435	397	0	0	435	0	0
Stage 1	402	402	-	511	511	-	-	-	-	-	-	-
Stage 2	514	511	-	438	408	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	253	273	658	240	271	621	1162	-	-	1125	-	-
Stage 1	625	600	-	545	537	-	-	-	-	-	-	-
Stage 2	543	537	-	597	597	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	240	260	658	203	258	621	1162	-	-	1125	-	-
Mov Capacity-2 Maneuver	240	260	-	203	258	-	-	-	-	-	-	-
Stage 1	598	596	-	522	514	-	-	-	-	-	-	-
Stage 2	514	514	-	530	593	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.4	22.8	0.7	0.1
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1162	-	-	433	219	1125	-	-
HCM Lane V/C Ratio	0.033	-	-	0.201	0.074	0.005	-	-
HCM Control Delay (s)	8.203	0	-	15.4	22.8	8.216	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.101	-	-	0.741	0.239	0.015	-	-

Notes
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Intersection	
Intersection Delay, s/veh	4.8
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	98	218	109
Demand Flow Rate, veh/h	100	222	111
Vehicles Circulating, veh/h	100	34	61
Vehicles Exiting, veh/h	72	166	195
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.5	5.2	4.4
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	100	222	111
Cap Entry Lane, veh/h	1022	1092	1063
Entry HV Adj Factor	0.980	0.981	0.982
Flow Entry, veh/h	98	218	109
Cap Entry, veh/h	1002	1072	1044
V/C Ratio	0.098	0.203	0.104
Control Delay, s/veh	4.5	5.2	4.4
LOS	A	A	A
95th %tile Queue, veh	0	1	0

Intersection	
Intersection Delay, s/veh	1.5

Movement	NBL	NBT	SBT	SBR	NEL	NER
Vol, veh/h	10	165	125	30	40	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	179	136	33	43	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	168	0	-	0	353	152
Stage 1	-	-	-	-	152	-
Stage 2	-	-	-	-	201	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1410	-	-	-	645	894
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	833	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1410	-	-	-	639	894
Mov Capacity-2 Maneuver	-	-	-	-	639	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	826	-

Approach	NB	SB	NE
HCM Control Delay, s	0.4	0	10.9
HCM LOS			B

Minor Lane / Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	660	1410	-	-	-
HCM Lane V/C Ratio	0.074	0.008	-	-	-
HCM Control Delay (s)	10.9	7.573	0	-	-
HCM Lane LOS	B	A	A		
HCM 95th %tile Q(veh)	0.239	0.023	-	-	-

Notes

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Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	120	25	5	85	5	20	15	10	5	15	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	5	5	2	2	11	2	2	5	2	2	2	2
Mvmt Flow	33	130	27	5	92	5	22	16	11	5	16	38
Number of Lanes	0	2	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.4	8.1	8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	44%	33%	0%	5%	9%
Vol Thru, %	33%	67%	71%	89%	27%
Vol Right, %	22%	0%	29%	5%	64%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	90	85	95	55
LT Vol	15	60	60	85	15
Through Vol	10	0	25	5	35
RT Vol	20	30	0	5	5
Lane Flow Rate	49	98	92	103	60
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.063	0.136	0.119	0.128	0.072
Departure Headway (Hd)	4.644	5.097	4.723	4.473	4.315
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	774	707	763	803	833
Service Time	2.654	2.797	2.423	2.488	2.323
HCM Lane V/C Ratio	0.063	0.139	0.121	0.128	0.072
HCM Control Delay	8	8.6	8.1	8.1	7.7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.5	0.4	0.4	0.2

Notes

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Intersection	
Intersection Delay, s/veh	3.7

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	25	80	110	10	65	155
Conflicting Peds, #/hr	10	5	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	19	2	2	10	2
Mvmt Flow	27	87	120	11	71	168

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	445	137	0	0	140	0
Stage 1	135	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Follow-up Headway	3.518	3.471	-	-	2.29	-
Pot Capacity-1 Maneuver	571	868	-	-	1395	-
Stage 1	891	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	532	857	-	-	1393	-
Mov Capacity-2 Maneuver	532	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	701	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	10.7	0	2.3
HCM LOS	B		

Minor Lane / Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	1393	-	748	-	-
HCM Lane V/C Ratio	0.051	-	0.153	-	-
HCM Control Delay (s)	7.722	0	10.7	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.16	-	0.537	-	-

Notes

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Intersection	
Intersection Delay, s/veh	7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	70	250	220	85	230	220
Conflicting Peds, #/hr	0	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-5	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	11	2	4	4	3
Mvmt Flow	76	272	239	92	250	239

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1027	289	0	0	335	0
Stage 1	288	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Follow-up Headway	3.518	3.399	-	-	2.236	-
Pot Capacity-1 Maneuver	260	729	-	-	1213	-
Stage 1	761	-	-	-	-	-
Stage 2	472	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	206	727	-	-	1212	-
Mov Capacity-2 Maneuver	206	-	-	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	374	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.2	0	4.5
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	206	727	1212	-
HCM Lane V/C Ratio	-	-	0.369	0.374	0.206	-
HCM Control Delay (s)	-	-	32.4	12.9	8.741	-
HCM Lane LOS			D	B	A	
HCM 95th %tile Q(veh)	-	-	1.599	1.738	0.775	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	65	95	160	55	130	20	120	35	65	10	50	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	74	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	103	174	60	141	22	130	38	71	11	54	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	163	0	0	277	0	0	549	615	139	484	690	82
Stage 1	-	-	-	-	-	-	332	332	-	272	272	-
Stage 2	-	-	-	-	-	-	217	283	-	212	418	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	1413	-	-	1283	-	-	419	405	884	466	367	961
Stage 1	-	-	-	-	-	-	655	643	-	711	683	-
Stage 2	-	-	-	-	-	-	765	676	-	770	589	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1413	-	-	1283	-	-	317	361	884	362	327	961
Mov Capacity-2 Maneuver	-	-	-	-	-	-	317	361	-	362	327	-
Stage 1	-	-	-	-	-	-	615	604	-	668	647	-
Stage 2	-	-	-	-	-	-	627	641	-	623	553	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	2.2	17.8	15.2
HCM LOS			C	C

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	317	472	1413	-	-	1283	-	-	473
HCM Lane V/C Ratio	0.274	0.322	0.05	-	-	0.047	-	-	0.253
HCM Control Delay (s)	20.6	16.2	7.682	0.1	-	7.943	0.1	-	15.2
HCM Lane LOS	C	C	A	A		A	A		C
HCM 95th %tile Q(veh)	1.092	1.38	0.158	-	-	0.146	-	-	0.993

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	130	25	10	135	70	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	141	27	11	147	76	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	168	0	250	84
Stage 1	-	-	-	-	155	-
Stage 2	-	-	-	-	95	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1407	-	717	958
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	918	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1407	-	711	958
Mov Capacity-2 Maneuver	-	-	-	-	711	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	910	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	10.5
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	763	-	-	1407	-
HCM Lane V/C Ratio	0.135	-	-	0.008	-
HCM Control Delay (s)	10.5	-	-	7.579	0
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.467	-	-	0.023	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	115	10	30	15	85	255	15	10	300	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	22	125	11	33	16	92	277	16	11	326	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	859	842	342	908	850	285	359	0	0	293	0	0
Stage 1	364	364	-	470	470	-	-	-	-	-	-	-
Stage 2	495	478	-	438	380	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	277	301	701	232	271	742	1200	-	-	1269	-	-
Stage 1	655	624	-	545	532	-	-	-	-	-	-	-
Stage 2	556	556	-	569	589	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	224	270	701	165	243	742	1200	-	-	1269	-	-
Mov Capacity-2 Maneuver	224	270	-	165	243	-	-	-	-	-	-	-
Stage 1	595	617	-	495	483	-	-	-	-	-	-	-
Stage 2	460	505	-	446	583	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.1	22.2	2	0.2
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1200	-	-	513	269	1269	-	-
HCM Lane V/C Ratio	0.077	-	-	0.307	0.222	0.009	-	-
HCM Control Delay (s)	8.25	0	-	15.1	22.2	7.861	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.25	-	-	1.293	0.831	0.026	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	5	0	5	5	10	35	0	5	40	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	5	0	5	5	11	38	0	5	43	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	122	117	46	123	120	38	49	0	0	38	0	0
Stage 1	57	57	-	60	60	-	-	-	-	-	-	-
Stage 2	65	60	-	63	60	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	853	773	1023	852	770	1034	1558	-	-	1572	-	-
Stage 1	955	847	-	951	845	-	-	-	-	-	-	-
Stage 2	946	845	-	948	845	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	837	765	1023	836	762	1034	1558	-	-	1572	-	-
Mov Capacity-2 Maneuver	837	765	-	836	762	-	-	-	-	-	-	-
Stage 1	948	844	-	944	839	-	-	-	-	-	-	-
Stage 2	928	839	-	934	842	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	9.2	1.6	0.7
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1558	-	-	862	877	1572	-	-
HCM Lane V/C Ratio	0.007	-	-	0.019	0.012	0.003	-	-
HCM Control Delay (s)	7.327	0	-	9.3	9.2	7.298	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.021	-	-	0.058	0.038	0.01	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	15	5	10	5	15	125	10	0	55	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	16	5	11	5	16	136	11	0	60	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	242	239	60	245	234	141	60	0	0	147	0	0
Stage 1	60	60	-	174	174	-	-	-	-	-	-	-
Stage 2	182	179	-	71	60	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	712	662	1005	709	666	907	1544	-	-	1435	-	-
Stage 1	951	845	-	828	755	-	-	-	-	-	-	-
Stage 2	820	751	-	939	845	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	693	655	1005	687	659	907	1544	-	-	1435	-	-
Mov Capacity-2 Maneuver	693	655	-	687	659	-	-	-	-	-	-	-
Stage 1	941	845	-	819	747	-	-	-	-	-	-	-
Stage 2	794	743	-	918	845	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.2	0.7	0
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1544	-	-	840	715	1435	-	-
HCM Lane V/C Ratio	0.011	-	-	0.032	0.03	-	-	-
HCM Control Delay (s)	7.356	0	-	9.4	10.2	0	-	-
HCM Lane LOS	A	A		A	B	A		
HCM 95th %tile Q(veh)	0.032	-	-	0.1	0.094	0	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	20	5	15	15	50	330	10	10	405	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	22	5	16	16	54	359	11	11	440	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	962	951	451	959	957	364	462	0	0	370	0	0
Stage 1	473	473	-	473	473	-	-	-	-	-	-	-
Stage 2	489	478	-	486	484	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	235	260	608	237	258	681	1099	-	-	1189	-	-
Stage 1	572	558	-	572	558	-	-	-	-	-	-	-
Stage 2	561	556	-	563	552	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	205	241	608	212	239	681	1099	-	-	1189	-	-
Mov Capacity-2 Maneuver	205	241	-	212	239	-	-	-	-	-	-	-
Stage 1	537	551	-	537	523	-	-	-	-	-	-	-
Stage 2	498	522	-	531	545	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.2	17.6	1.1	0.2
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1099	-	-	384	323	1189	-	-
HCM Lane V/C Ratio	0.049	-	-	0.085	0.118	0.009	-	-
HCM Control Delay (s)	8.446	0	-	15.2	17.6	8.056	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.156	-	-	0.277	0.396	0.028	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	30	10	55	25	55	230	20	20	305	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	22	33	11	60	27	60	250	22	22	332	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	810	777	342	793	777	261	353	0	0	272	0	0
Stage 1	386	386	-	380	380	-	-	-	-	-	-	-
Stage 2	424	391	-	413	397	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	298	328	701	306	328	778	1206	-	-	1291	-	-
Stage 1	637	610	-	642	614	-	-	-	-	-	-	-
Stage 2	608	607	-	616	603	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	230	302	701	259	302	778	1206	-	-	1291	-	-
Mov Capacity-2 Maneuver	230	302	-	259	302	-	-	-	-	-	-	-
Stage 1	599	597	-	604	578	-	-	-	-	-	-	-
Stage 2	495	571	-	554	590	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16	18.9	1.5	0.5
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1206	-	-	393	356	1291	-	-
HCM Lane V/C Ratio	0.05	-	-	0.166	0.275	0.017	-	-
HCM Control Delay (s)	8.141	0	-	16	18.9	7.836	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.156	-	-	0.588	1.099	0.051	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	15	15	180	185	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	16	16	196	201	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	437	209	217	0	-	0
Stage 1	209	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	577	831	1353	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	569	831	1353	-	-	-
Mov Capacity-2 Maneuver	569	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.6	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1353	-	702	-	-
HCM Lane V/C Ratio	0.012	-	0.039	-	-
HCM Control Delay (s)	7.693	0	10.3	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.037	-	0.121	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	15	15	20	180	185	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	22	196	201	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	448	209	217	0	-	0
Stage 1	209	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	568	831	1353	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	558	831	1353	-	-	-
Mov Capacity-2 Maneuver	558	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	787	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.8	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1353	-	668	-	-
HCM Lane V/C Ratio	0.016	-	0.049	-	-
HCM Control Delay (s)	7.704	0	10.7	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.049	-	0.154	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	20	5	10	20	5	5	20	5	5	15	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	22	5	11	22	5	5	22	5	5	16	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	79	68	19	78	68	24	22	0	0	27	0	0
Stage 1	30	30	-	35	35	-	-	-	-	-	-	-
Stage 2	49	38	-	43	33	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	910	823	1059	911	823	1052	1593	-	-	1587	-	-
Stage 1	987	870	-	981	866	-	-	-	-	-	-	-
Stage 2	964	863	-	971	868	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	883	818	1059	884	818	1052	1593	-	-	1587	-	-
Mov Capacity-2 Maneuver	883	818	-	884	818	-	-	-	-	-	-	-
Stage 1	984	867	-	978	863	-	-	-	-	-	-	-
Stage 2	932	860	-	939	865	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	9.4	1.2	1.5
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1593	-	-	861	864	1587	-	-
HCM Lane V/C Ratio	0.003	-	-	0.038	0.044	0.003	-	-
HCM Control Delay (s)	7.268	0	-	9.3	9.4	7.276	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.01	-	-	0.118	0.138	0.01	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	20	5	5	30	5	10	35	10	10	40	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	22	5	5	33	5	11	38	11	11	43	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.4	7.4	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	17%	12%	18%
Vol Thru, %	64%	67%	75%	73%
Vol Right, %	18%	17%	12%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	30	40	55
LT Vol	35	20	30	40
Through Vol	10	5	5	5
RT Vol	10	5	5	10
Lane Flow Rate	60	33	43	60
Geometry Grp	1	1	1	1
Degree of Util (X)	0.067	0.037	0.05	0.068
Departure Headway (Hd)	4.039	4.107	4.115	4.094
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	881	863	862	870
Service Time	2.09	2.173	2.179	2.144
HCM Lane V/C Ratio	0.068	0.038	0.05	0.069
HCM Control Delay	7.4	7.3	7.4	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.2	0.2

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	20	10	10	20	25	5	260	15	25	280	10
Conflicting Peds, #/hr	0	0	3	3	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	30	-	-	50	-	-	74	-	-	71	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	-2	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	4	2	2	2	2	2	3	2
Mvmt Flow	5	22	11	11	22	27	5	283	16	27	304	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	696	680	323	688	678	304	318	0	0	302	0	0
Stage 1	367	367	-	305	305	-	-	-	-	-	-	-
Stage 2	329	313	-	383	373	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.036	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	485	505	771	321	332	717	1242	-	-	1259	-	-
Stage 1	768	732	-	670	626	-	-	-	-	-	-	-
Stage 2	792	755	-	600	578	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	429	490	763	297	322	709	1233	-	-	1248	-	-
Mov Capacity-2 Maneuver	429	490	-	297	322	-	-	-	-	-	-	-
Stage 1	763	714	-	665	622	-	-	-	-	-	-	-
Stage 2	725	750	-	557	564	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	14.6	0.1	0.6
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1233	-	-	429	548	297	445	1248	-	-
HCM Lane V/C Ratio	0.004	-	-	0.008	0.063	0.024	0.118	0.022	-	-
HCM Control Delay (s)	7.933	-	-	13.5	12	17.4	14.2	7.949	-	-
HCM Lane LOS	A			B	B	C	B	A		
HCM 95th %tile Q(veh)	0.013	-	-	0.026	0.2	0.075	0.398	0.067	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	30	15	55	20	10	25	155	15	5	130	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	33	16	60	22	11	27	168	16	5	141	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.2	8.6	9.1	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	18%	65%	4%
Vol Thru, %	79%	55%	24%	93%
Vol Right, %	8%	27%	12%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	195	55	85	140
LT Vol	155	30	20	130
Through Vol	15	15	10	5
RT Vol	25	10	55	5
Lane Flow Rate	212	60	92	152
Geometry Grp	1	1	1	1
Degree of Util (X)	0.263	0.079	0.126	0.191
Departure Headway (Hd)	4.46	4.758	4.898	4.53
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	805	751	731	791
Service Time	2.486	2.797	2.934	2.56
HCM Lane V/C Ratio	0.263	0.08	0.126	0.192
HCM Control Delay	9.1	8.2	8.6	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.3	0.4	0.7

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	40	50	40	5	15	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	54	43	5	16	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	49	0	-	0	187	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	141	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1558	-	-	-	802	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	886	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1558	-	-	-	780	1023
Mov Capacity-2 Maneuver	-	-	-	-	780	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	861	-

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	9.2
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1558	-	-	-	885
HCM Lane V/C Ratio	0.028	-	-	-	0.037
HCM Control Delay (s)	7.377	0	-	-	9.2
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.086	-	-	-	0.115

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	10	5	0	10	165	5	0	135	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	11	5	0	11	179	5	0	147	60

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	384	384	177	381	411	182	207	0	0	185	0	0
Stage 1	177	177	-	204	204	-	-	-	-	-	-	-
Stage 2	207	207	-	177	207	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	574	550	866	577	531	861	1364	-	-	1390	-	-
Stage 1	825	753	-	798	733	-	-	-	-	-	-	-
Stage 2	795	731	-	825	731	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	566	545	866	573	526	861	1364	-	-	1390	-	-
Mov Capacity-2 Maneuver	566	545	-	573	526	-	-	-	-	-	-	-
Stage 1	818	753	-	791	726	-	-	-	-	-	-	-
Stage 2	782	724	-	825	731	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	11.7	0.4	0
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1364	-	-	0	556	1390	-	-
HCM Lane V/C Ratio	0.008	-	-	+	0.029	-	-	-
HCM Control Delay (s)	7.66	0	-	0	11.7	0	-	-
HCM Lane LOS	A	A		A	B	A		
HCM 95th %tile Q(veh)	0.024	-	-	+	0.091	0	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	70	55	20	10	50	10	20	85	15	10	115	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	60	22	11	54	11	22	92	16	11	125	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	82	0	0	381	310	71	359	316	60
Stage 1	-	-	-	-	-	-	223	223	-	82	82	-
Stage 2	-	-	-	-	-	-	158	87	-	277	234	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1537	-	-	1515	-	-	577	605	991	596	600	1005
Stage 1	-	-	-	-	-	-	780	719	-	926	827	-
Stage 2	-	-	-	-	-	-	844	823	-	729	711	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1537	-	-	1515	-	-	445	569	991	490	564	1005
Mov Capacity-2 Maneuver	-	-	-	-	-	-	445	569	-	490	564	-
Stage 1	-	-	-	-	-	-	739	682	-	878	820	-
Stage 2	-	-	-	-	-	-	690	816	-	588	674	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.6	1.1	13.1	13.2
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	573	1537	-	-	1515	-	-	602
HCM Lane V/C Ratio	0.228	0.05	-	-	0.007	-	-	0.271
HCM Control Delay (s)	13.1	7.464	0	-	7.393	0	-	13.2
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	0.87	0.156	-	-	0.022	-	-	1.093

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	40	70	35	30	30	55	345	90	25	265	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	43	76	38	33	33	60	375	98	27	288	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	921	953	307	926	923	424	326	0	0	473	0	0
Stage 1	361	361	-	543	543	-	-	-	-	-	-	-
Stage 2	560	592	-	383	380	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	251	259	733	249	270	630	1234	-	-	1089	-	-
Stage 1	657	626	-	524	520	-	-	-	-	-	-	-
Stage 2	513	494	-	640	614	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	203	240	733	182	251	630	1234	-	-	1089	-	-
Mov Capacity-2 Maneuver	203	240	-	182	251	-	-	-	-	-	-	-
Stage 1	625	610	-	499	495	-	-	-	-	-	-	-
Stage 2	432	470	-	519	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.8	25.3	0.9	0.6
HCM LOS	C	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1234	-	-	270	733	229	630	1089	-	-
HCM Lane V/C Ratio	0.048	-	-	0.376	0.069	0.356	0.035	0.025	-	-
HCM Control Delay (s)	8.066	-	-	26.1	10.3	29.2	10.9	8.39	-	-
HCM Lane LOS	A			D	B	D	B	A		
HCM 95th %tile Q(veh)	0.153	-	-	1.673	0.222	1.531	0.107	0.077	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	55	10	10	50	45	10	120	15	70	155	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	60	11	11	54	49	11	130	16	76	168	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	546	502	182	530	508	139	196	0	0	147	0	0
Stage 1	334	334	-	160	160	-	-	-	-	-	-	-
Stage 2	212	168	-	370	348	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	448	471	861	460	468	909	1377	-	-	1435	-	-
Stage 1	680	643	-	842	766	-	-	-	-	-	-	-
Stage 2	790	759	-	650	634	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	364	439	861	386	436	909	1377	-	-	1435	-	-
Mov Capacity-2 Maneuver	364	439	-	386	436	-	-	-	-	-	-	-
Stage 1	674	604	-	834	759	-	-	-	-	-	-	-
Stage 2	688	752	-	544	596	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	13.2	0.5	2.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1377	-	-	456	552	1435	-	-
HCM Lane V/C Ratio	0.008	-	-	0.179	0.207	0.053	-	-
HCM Control Delay (s)	7.635	0	-	14.6	13.2	7.649	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.024	-	-	0.644	0.771	0.168	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	45	5	10	40	35	5	85	15	30	120	15
Conflicting Peds, #/hr	29	0	4	4	0	29	2	0	4	4	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	6	-	-	-2	-	-	5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	2	2	2	2	2	2	2	7	2	9
Mvmt Flow	16	49	5	11	43	38	5	92	16	33	130	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	414	382	172	400	381	134	176	0	0	138	0	0
Stage 1	233	233	-	140	140	-	-	-	-	-	-	-
Stage 2	181	149	-	260	241	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.126	3.318	3.518	4.018	3.318	2.218	-	-	2.263	-	-
Pot Capacity-1 Maneuver	602	580	888	491	486	895	1400	-	-	1415	-	-
Stage 1	811	727	-	824	745	-	-	-	-	-	-	-
Stage 2	854	777	-	683	652	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	504	530	861	427	444	862	1395	-	-	1409	-	-
Mov Capacity-2 Maneuver	504	530	-	427	444	-	-	-	-	-	-	-
Stage 1	787	690	-	794	718	-	-	-	-	-	-	-
Stage 2	760	749	-	612	618	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	12.8	0.4	1.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1395	-	-	540	552	1409	-	-
HCM Lane V/C Ratio	0.004	-	-	0.131	0.167	0.023	-	-
HCM Control Delay (s)	7.591	0	-	12.7	12.8	7.616	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.012	-	-	0.448	0.597	0.071	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	0	5	30	5	35	0	185	20	25	215	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	-3	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	14	25	2	2	2	11	2	2	2
Mvmt Flow	5	0	5	33	5	38	0	201	22	27	234	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	525	514	236	505	505	212	239	0	0	223	0	0
Stage 1	291	291	-	212	212	-	-	-	-	-	-	-
Stage 2	234	223	-	293	293	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.626	4.225	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	505	506	819	446	426	823	1328	-	-	1346	-	-
Stage 1	753	705	-	755	678	-	-	-	-	-	-	-
Stage 2	800	746	-	679	620	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	469	494	819	435	416	823	1328	-	-	1346	-	-
Mov Capacity-2 Maneuver	469	494	-	435	416	-	-	-	-	-	-	-
Stage 1	753	689	-	755	678	-	-	-	-	-	-	-
Stage 2	757	746	-	659	606	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	12.3	0	0.8
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1328	-	-	596	567	1346	-	-
HCM Lane V/C Ratio	-	-	-	0.018	0.134	0.02	-	-
HCM Control Delay (s)	0	-	-	11.2	12.3	7.73	0	-
HCM Lane LOS	A			B	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.056	0.462	0.062	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	35	40	10	30	15	20	175	10	20	205	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-3	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	38	43	11	33	16	22	190	11	22	223	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	547	528	239	562	538	196	255	0	0	201	0	0
Stage 1	283	283	-	239	239	-	-	-	-	-	-	-
Stage 2	264	245	-	323	299	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	448	456	800	438	450	845	1310	-	-	1371	-	-
Stage 1	724	677	-	764	708	-	-	-	-	-	-	-
Stage 2	741	703	-	689	666	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	402	439	800	376	433	845	1310	-	-	1371	-	-
Mov Capacity-2 Maneuver	402	439	-	376	433	-	-	-	-	-	-	-
Stage 1	710	664	-	749	695	-	-	-	-	-	-	-
Stage 2	679	690	-	603	653	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	13.5	0.8	0.6
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1310	-	-	529	484	1371	-	-
HCM Lane V/C Ratio	0.017	-	-	0.195	0.124	0.016	-	-
HCM Control Delay (s)	7.794	0	-	13.4	13.5	7.668	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.051	-	-	0.718	0.419	0.048	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	0	65	0	0	0	25	480	5	5	395	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	54	-	-	-	-	-	52	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	0	71	0	0	0	27	522	5	5	429	16

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	763	1024	223				446	0	0	522	0	0
Stage 1	448	448	-				-	-	-	-	-	-
Stage 2	315	576	-				-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32				2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	341	234	780				1111	-	-	1041	-	-
Stage 1	611	571	-				-	-	-	-	-	-
Stage 2	713	500	-				-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	327	0	780				1111	-	-	1041	-	-
Mov Capacity-2 Maneuver	327	0	-				-	-	-	-	-	-
Stage 1	607	0	-				-	-	-	-	-	-
Stage 2	689	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.5	0.1
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1111	-	-	498	780	1041	-	-
HCM Lane V/C Ratio	0.024	-	-	0.08	0.06	0.005	-	-
HCM Control Delay (s)	8.322	0.1	-	12.9	9.9	8.476	0	-
HCM Lane LOS	A	A		B	A	A	A	
HCM 95th %tile Q(veh)	0.075	-	-	0.26	0.192	0.016	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	65	5	5	35	45	10	5	0	75	5	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	86	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	71	5	5	38	49	11	5	0	82	5	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	267	223	33	261	250	5	60	0	0	5	0	0
Stage 1	196	196	-	27	27	-	-	-	-	-	-	-
Stage 2	71	27	-	234	223	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	686	676	1041	692	653	1078	1544	-	-	1616	-	-
Stage 1	806	739	-	990	873	-	-	-	-	-	-	-
Stage 2	939	873	-	769	719	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	597	637	1041	603	616	1078	1544	-	-	1616	-	-
Mov Capacity-2 Maneuver	597	637	-	603	616	-	-	-	-	-	-	-
Stage 1	800	702	-	983	867	-	-	-	-	-	-	-
Stage 2	851	867	-	653	683	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	10.1	4.9	4.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1544	-	-	637	795	1616	-	-
HCM Lane V/C Ratio	0.007	-	-	0.171	0.116	0.05	-	-
HCM Control Delay (s)	7.348	0	-	11.8	10.1	7.346	-	-
HCM Lane LOS	A	A		B	B	A		
HCM 95th %tile Q(veh)	0.021	-	-	0.612	0.393	0.159	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	75	90	5	0	100	20	5	5	5	45	5	80
Conflicting Peds, #/hr	2	0	3	3	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	4	-	-	-6	-	-	7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	2	3
Mvmt Flow	82	98	5	0	109	22	5	5	5	49	5	87

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	237	175	52	223	215	11	95	0	0	14	0	0
Stage 1	150	150	-	22	22	-	-	-	-	-	-	-
Stage 2	87	25	-	201	193	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Capacity-1 Maneuver	776	762	1025	697	651	1069	1499	-	-	1578	-	-
Stage 1	896	813	-	992	873	-	-	-	-	-	-	-
Stage 2	948	882	-	766	710	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	639	730	1022	603	623	1065	1499	-	-	1578	-	-
Mov Capacity-2 Maneuver	639	730	-	603	623	-	-	-	-	-	-	-
Stage 1	891	784	-	985	867	-	-	-	-	-	-	-
Stage 2	810	876	-	645	685	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	11.7	2.5	2.5
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1499	-	-	692	669	1578	-	-
HCM Lane V/C Ratio	0.004	-	-	0.267	0.195	0.031	-	-
HCM Control Delay (s)	7.41	0	-	12.1	11.7	7.354	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.011	-	-	1.075	0.719	0.096	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	130	5	10	160	15	10	10	10	15	5	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	141	5	11	174	16	11	11	11	16	5	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	190	0	0	147	0	0	443	432	144	435	427	182
Stage 1	-	-	-	-	-	-	220	220	-	204	204	-
Stage 2	-	-	-	-	-	-	223	212	-	231	223	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1384	-	-	1435	-	-	525	516	903	531	520	861
Stage 1	-	-	-	-	-	-	782	721	-	798	733	-
Stage 2	-	-	-	-	-	-	780	727	-	772	719	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1384	-	-	1435	-	-	487	497	903	502	501	861
Mov Capacity-2 Maneuver	-	-	-	-	-	-	487	497	-	502	501	-
Stage 1	-	-	-	-	-	-	761	701	-	776	726	-
Stage 2	-	-	-	-	-	-	738	720	-	730	699	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0.4	11.6	10.9
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	580	1384	-	-	1435	-	-	669
HCM Lane V/C Ratio	0.056	0.027	-	-	0.008	-	-	0.081
HCM Control Delay (s)	11.6	7.675	-	-	7.528	0	-	10.9
HCM Lane LOS	B	A			A	A		B
HCM 95th %tile Q(veh)	0.178	0.085	-	-	0.023	-	-	0.264

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	155	60	45	180	5	60	25	45	5	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	168	65	49	196	5	65	27	49	5	11	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	201	0	0	234	0	0	516	511	201	546	541	198
Stage 1	-	-	-	-	-	-	212	212	-	296	296	-
Stage 2	-	-	-	-	-	-	304	299	-	250	245	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1371	-	-	1333	-	-	470	466	840	448	448	843
Stage 1	-	-	-	-	-	-	790	727	-	712	668	-
Stage 2	-	-	-	-	-	-	705	666	-	754	703	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1371	-	-	1333	-	-	442	445	840	389	428	843
Mov Capacity-2 Maneuver	-	-	-	-	-	-	442	445	-	389	428	-
Stage 1	-	-	-	-	-	-	787	724	-	709	641	-
Stage 2	-	-	-	-	-	-	660	639	-	681	700	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.5	14.2	12.9
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	530	1371	-	-	1333	-	-	475
HCM Lane V/C Ratio	0.267	0.004	-	-	0.037	-	-	0.046
HCM Control Delay (s)	14.2	7.636	0	-	7.804	0	-	12.9
HCM Lane LOS	B	A	A		A	A		B
HCM 95th %tile Q(veh)	1.067	0.012	-	-	0.114	-	-	0.144

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	5	185	0	60	5	135	145	80	165	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Yield	Yield	Yield	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	7	-	-	-4	-	-	8	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	33	2	14	2	33	2	2	6	2	6	2	2
Mvmt Flow	0	0	5	201	0	65	5	147	158	87	179	5

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	527	467	0	587	435	33
Stage 1	-	-	-	0	0	-	435	435	-
Stage 2	-	-	-	527	467	-	152	0	-
Follow-up Headway	-	-	-	3.518	4.054	-	3.554	4.018	3.318
Pot Capacity-1 Maneuver	-	-	-	365	396	-	443	540	1042
Stage 1	-	-	-	-	-	-	621	609	-
Stage 2	-	-	-	423	451	-	-	-	-
Time blocked-Platoon, %		-	-						
Mov Capacity-1 Maneuver	-	-	-	270	396	-	-	540	1042
Mov Capacity-2 Maneuver	-	-	-	270	396	-	-	540	-
Stage 1	-	-	-	-	-	-	621	609	-
Stage 2	-	-	-	297	451	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	+	+
HCM LOS		-	-

Minor Lane / Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	-	-	-	+
HCM Lane V/C Ratio	+	-	-	-	+
HCM Control Delay (s)	+	-	-	-	+
HCM Lane LOS	+				+
HCM 95th %tile Q(veh)	+	-	-	-	+

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	20	5	120	15	5	5	15	140	10	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	22	5	130	16	5	5	16	152	11	11	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	147	212	11	149	136	92	11	0	0	168	0	0
Stage 1	33	33	-	103	103	-	-	-	-	-	-	-
Stage 2	114	179	-	46	33	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	821	685	1070	819	755	965	1608	-	-	1410	-	-
Stage 1	983	868	-	903	810	-	-	-	-	-	-	-
Stage 2	891	751	-	968	868	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	796	677	1070	788	747	965	1608	-	-	1410	-	-
Mov Capacity-2 Maneuver	796	677	-	788	747	-	-	-	-	-	-	-
Stage 1	980	861	-	900	808	-	-	-	-	-	-	-
Stage 2	865	749	-	931	861	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.7	0.2	3.8
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	741	789	1410	-	-
HCM Lane V/C Ratio	0.003	-	-	0.044	0.193	0.008	-	-
HCM Control Delay (s)	7.246	0	-	10.1	10.7	7.573	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.01	-	-	0.138	0.711	0.023	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	5	5	0	20	5	70	5	15	90	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	5	5	0	22	5	76	5	16	98	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	237	228	103	231	231	79	109	0	0	82	0	0
Stage 1	136	136	-	90	90	-	-	-	-	-	-	-
Stage 2	101	92	-	141	141	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	717	671	952	724	669	981	1481	-	-	1515	-	-
Stage 1	867	784	-	917	820	-	-	-	-	-	-	-
Stage 2	905	819	-	862	780	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	693	661	952	707	659	981	1481	-	-	1515	-	-
Mov Capacity-2 Maneuver	693	661	-	707	659	-	-	-	-	-	-	-
Stage 1	864	775	-	913	817	-	-	-	-	-	-	-
Stage 2	881	816	-	842	771	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	9.1	0.5	1
HCM LOS	B	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1481	-	-	734	910	1515	-	-
HCM Lane V/C Ratio	0.004	-	-	0.03	0.03	0.011	-	-
HCM Control Delay (s)	7.44	0	-	10.1	9.1	7.402	0	-
HCM Lane LOS	A	A		B	A	A	A	
HCM 95th %tile Q(veh)	0.011	-	-	0.091	0.092	0.033	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	5	10	15	10	0	15	10	20	15	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	5	11	16	11	0	16	11	22	16	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	27	0	0	11	0	0	87	79	8	86	76	22
Stage 1	-	-	-	-	-	-	30	30	-	43	43	-
Stage 2	-	-	-	-	-	-	57	49	-	43	33	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1587	-	-	1608	-	-	899	811	1074	900	814	1055
Stage 1	-	-	-	-	-	-	987	870	-	971	859	-
Stage 2	-	-	-	-	-	-	955	854	-	971	868	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1587	-	-	1608	-	-	867	800	1074	868	803	1055
Mov Capacity-2 Maneuver	-	-	-	-	-	-	867	800	-	868	803	-
Stage 1	-	-	-	-	-	-	980	864	-	964	853	-
Stage 2	-	-	-	-	-	-	921	848	-	936	862	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.6	2.1	9.2	9.3
HCM LOS			A	A

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	891	1587	-	-	1608	-	-	879
HCM Lane V/C Ratio	0.03	0.007	-	-	0.007	-	-	0.056
HCM Control Delay (s)	9.2	7.284	0	-	7.254	0	-	9.3
HCM Lane LOS	A	A	A		A	A		A
HCM 95th %tile Q(veh)	0.094	0.021	-	-	0.02	-	-	0.176

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	10	15	15	20	45	5	130	10	25	100	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	11	16	16	22	49	5	141	11	27	109	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	364	334	117	343	337	147	125	0	0	152	0	0
Stage 1	171	171	-	158	158	-	-	-	-	-	-	-
Stage 2	193	163	-	185	179	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	592	586	935	611	584	900	1462	-	-	1429	-	-
Stage 1	831	757	-	844	767	-	-	-	-	-	-	-
Stage 2	809	763	-	817	751	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	534	572	935	581	570	900	1462	-	-	1429	-	-
Mov Capacity-2 Maneuver	534	572	-	581	570	-	-	-	-	-	-	-
Stage 1	828	742	-	841	764	-	-	-	-	-	-	-
Stage 2	740	760	-	775	736	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	10.7	0.3	1.4
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1462	-	-	634	721	1429	-	-
HCM Lane V/C Ratio	0.004	-	-	0.077	0.121	0.019	-	-
HCM Control Delay (s)	7.472	0	-	11.2	10.7	7.568	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.011	-	-	0.25	0.409	0.058	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	20	5	5	45	30	645	10	55	735	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	340	-	-	99	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	22	5	5	49	33	701	11	60	799	49

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1361	1720	424	1294	1739	356	848	0	0	712	0	0
Stage 1	943	943	-	772	772	-	-	-	-	-	-	-
Stage 2	418	777	-	522	967	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	107	89	579	120	86	640	785	-	-	884	-	-
Stage 1	282	339	-	358	407	-	-	-	-	-	-	-
Stage 2	583	405	-	506	331	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	86	79	579	101	77	640	785	-	-	884	-	-
Mov Capacity-2 Maneuver	86	79	-	101	77	-	-	-	-	-	-	-
Stage 1	270	316	-	343	390	-	-	-	-	-	-	-
Stage 2	509	388	-	446	309	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.7	20.1	0.4	0.6
HCM LOS	D	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	785	-	-	163	298	884	-	-
HCM Lane V/C Ratio	0.042	-	-	0.233	0.201	0.068	-	-
HCM Control Delay (s)	9.785	-	-	33.7	20.1	9.368	-	-
HCM Lane LOS	A			D	C	A		
HCM 95th %tile Q(veh)	0.13	-	-	0.865	0.735	0.217	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Vol, veh/h	15	0	5	15	0	30	0	100	20	20	95	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	0	5	16	0	33	0	109	22	22	103	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	285	279	106	272	272	120	109	0	0	130	0	0
Stage 1	149	149	-	120	120	-	-	-	-	-	-	-
Stage 2	136	130	-	152	152	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	667	629	948	680	635	931	1481	-	-	1455	-	-
Stage 1	854	774	-	884	796	-	-	-	-	-	-	-
Stage 2	867	789	-	850	772	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	636	619	948	668	625	931	1481	-	-	1455	-	-
Mov Capacity-2 Maneuver	636	619	-	668	625	-	-	-	-	-	-	-
Stage 1	854	762	-	884	796	-	-	-	-	-	-	-
Stage 2	837	789	-	832	760	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	10.4	9.7	0	1.3
HCM LOS	B	A		

Minor Lane / Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1481	-	-	823	693	1455	-	-
HCM Lane V/C Ratio	-	-	-	0.059	0.031	0.015	-	-
HCM Control Delay (s)	0	-	-	9.7	10.4	7.512	0	-
HCM Lane LOS	A			A	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.189	0.097	0.045	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.6

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	85	15	15	60	65	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	16	16	65	71	87

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	212	114	158	0	-	0
Stage 1	114	-	-	-	-	-
Stage 2	98	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	776	939	1422	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	926	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	767	939	1422	-	-	-
Mov Capacity-2 Maneuver	767	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	915	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	10.3	1.5	0
HCM LOS	B		

Minor Lane / Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1422	-	789	-	-
HCM Lane V/C Ratio	0.011	-	0.138	-	-
HCM Control Delay (s)	7.561	0	10.3	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.035	-	0.477	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	15	100	75	5	5	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	109	82	5	5	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	87	0	-	0	225	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	141	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1509	-	-	-	763	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	886	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1509	-	-	-	755	975
Mov Capacity-2 Maneuver	-	-	-	-	755	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	9
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	921
HCM Lane V/C Ratio	0.011	-	-	-	0.03
HCM Control Delay (s)	7.412	0	-	-	9
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.033	-	-	-	0.091

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Vol, veh/h	195	45	15	170	50	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	1000	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	6	40	18	28	25
Mvmt Flow	212	49	16	185	54	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	261	0	361	130
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	125	-
Follow-up Headway	-	-	2.6	-	3.78	3.55
Pot Capacity-1 Maneuver	-	-	1065	-	526	821
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	804	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1065	-	518	821
Mov Capacity-2 Maneuver	-	-	-	-	518	-
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	792	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0.7	12.2
HCM LOS			B

Minor Lane / Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	1065	-	579
HCM Lane V/C Ratio	-	-	0.015	-	0.131
HCM Control Delay (s)	-	-	8.433	-	12.2
HCM Lane LOS			A		B
HCM 95th %tile Q(veh)	-	-	0.047	-	0.451

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	0	15	25	30	50	20	180	0	0	230	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	84	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	0	16	27	33	54	22	196	0	0	250	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	538	494	255	503	500	196	261	0	0	196	0	0
Stage 1	255	255	-	239	239	-	-	-	-	-	-	-
Stage 2	283	239	-	264	261	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	454	476	784	479	473	845	1303	-	-	1377	-	-
Stage 1	749	696	-	764	708	-	-	-	-	-	-	-
Stage 2	724	708	-	741	692	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	396	467	784	462	464	845	1303	-	-	1377	-	-
Mov Capacity-2 Maneuver	396	467	-	462	464	-	-	-	-	-	-	-
Stage 1	735	696	-	749	695	-	-	-	-	-	-	-
Stage 2	633	695	-	726	692	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12	0.8	0
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1303	-	-	526	462	623	1377	-	-
HCM Lane V/C Ratio	0.017	-	-	0.062	0.039	0.154	-	-	-
HCM Control Delay (s)	7.81	0	-	12.3	13.1	11.8	0	-	-
HCM Lane LOS	A	A		B	B	B	A		
HCM 95th %tile Q(veh)	0.051	-	-	0.198	0.122	0.542	0	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	75	25	110	10	30	25	90	385	30	35	375	60
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	108	-	-	60	-	-	120	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	2	2	14	18	2	2	4	2	2	3	7
Mvmt Flow	82	27	120	11	33	27	98	418	33	38	408	65

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1178	1165	443	1222	1181	438	474	0	0	452	0	0
Stage 1	517	517	-	631	631	-	-	-	-	-	-	-
Stage 2	661	648	-	591	550	-	-	-	-	-	-	-
Follow-up Headway	3.644	4.018	3.318	3.626	4.162	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	157	194	615	148	177	619	1088	-	-	1109	-	-
Stage 1	516	534	-	449	450	-	-	-	-	-	-	-
Stage 2	429	466	-	473	491	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	114	170	613	95	155	617	1085	-	-	1107	-	-
Mov Capacity-2 Maneuver	114	170	-	95	155	-	-	-	-	-	-	-
Stage 1	469	515	-	408	409	-	-	-	-	-	-	-
Stage 2	343	423	-	347	474	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	40.6	30.1	1.5	0.6
HCM LOS	E	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1085	-	-	114	293	95	217	1107	-	-
HCM Lane V/C Ratio	0.09	-	-	0.477	0.594	0.076	0.292	0.034	-	-
HCM Control Delay (s)	8.647	-	-	62.5	33.7	46	28.3	8.368	-	-
HCM Lane LOS	A			F	D	E	D	A		
HCM 95th %tile Q(veh)	0.297	-	-	2.127	3.54	0.242	1.167	0.107	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	55	20	100	20	20	80	75	415	20	70	295	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	6	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	22	109	22	22	87	82	451	22	76	321	98

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	921	1158	209	948	1196	236	418	0	0	473	0	0
Stage 1	522	522	-	625	625	-	-	-	-	-	-	-
Stage 2	399	636	-	323	571	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	225	195	797	215	185	766	1138	-	-	1085	-	-
Stage 1	506	529	-	439	475	-	-	-	-	-	-	-
Stage 2	598	470	-	663	503	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	153	160	797	144	151	766	1138	-	-	1085	-	-
Mov Capacity-2 Maneuver	153	160	-	144	151	-	-	-	-	-	-	-
Stage 1	456	480	-	396	428	-	-	-	-	-	-	-
Stage 2	454	424	-	496	456	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.1	23.9	1.5	1.5
HCM LOS	E	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1138	-	-	287	319	1085	-	-
HCM Lane V/C Ratio	0.072	-	-	0.663	0.409	0.07	-	-
HCM Control Delay (s)	8.407	0.3	-	39.1	23.9	8.568	0.3	-
HCM Lane LOS	A	A		E	C	A	A	
HCM 95th %tile Q(veh)	0.231	-	-	4.34	1.919	0.226	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	170	0	60	0	5	10	35	305	5	10	285	170
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	244	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	185	0	65	0	5	11	38	332	5	11	310	185

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	669	837	247	587	926	168	495	0	0	337	0	0
Stage 1	424	424	-	410	410	-	-	-	-	-	-	-
Stage 2	245	413	-	177	516	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	343	301	753	393	267	847	1065	-	-	1219	-	-
Stage 1	578	585	-	589	594	-	-	-	-	-	-	-
Stage 2	737	592	-	808	533	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	319	284	753	343	252	847	1065	-	-	1219	-	-
Mov Capacity-2 Maneuver	319	284	-	343	252	-	-	-	-	-	-	-
Stage 1	553	577	-	563	568	-	-	-	-	-	-	-
Stage 2	689	566	-	728	526	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.4	12.9	1	0.2
HCM LOS	D	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1065	-	-	319	753	474	1219	-	-
HCM Lane V/C Ratio	0.036	-	-	0.579	0.087	0.034	0.009	-	-
HCM Control Delay (s)	8.505	0.2	-	30.7	10.2	12.9	7.98	0	-
HCM Lane LOS	A	A		D	B	B	A	A	
HCM 95th %tile Q(veh)	0.111	-	-	3.429	0.284	0.107	0.027	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	55	25	25	55	30	20	230	30	25	240	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	5	8	12	2	2	2	2	8	2	15	19
Mvmt Flow	38	60	27	27	60	33	22	250	33	27	261	49
Number of Lanes	1	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	10.6	10.6	11	11.4
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	72%	0%	69%	0%	65%	0%	100%	64%
Vol Right, %	0%	0%	28%	0%	31%	0%	35%	0%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	153	107	35	80	25	85	25	160	125
LT Vol	0	153	77	0	55	0	55	0	160	80
Through Vol	0	0	30	0	25	0	30	0	0	45
RT Vol	20	0	0	35	0	25	0	25	0	0
Lane Flow Rate	22	167	116	38	87	27	92	27	174	136
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.041	0.289	0.198	0.077	0.159	0.056	0.167	0.05	0.309	0.234
Departure Headway (Hd)	6.753	6.248	6.152	7.259	6.573	7.43	6.51	6.672	6.39	6.204
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	529	573	582	493	544	481	550	536	562	577
Service Time	4.505	3.999	3.903	5.018	4.331	5.19	4.27	4.421	4.139	3.954
HCM Lane V/C Ratio	0.042	0.291	0.199	0.077	0.16	0.056	0.167	0.05	0.31	0.236
HCM Control Delay	9.8	11.5	10.4	10.6	10.6	10.6	10.6	9.8	12	10.9
HCM Lane LOS	A	B	B	B	B	B	B	A	B	B
HCM 95th-tile Q	0.1	1.2	0.7	0.2	0.6	0.2	0.6	0.2	1.3	0.9

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	5	0	5	5	75	5	180	15	95	185	10
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	42	45	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	5	-	-	1	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	2	2	2	2	6	2	3	13	38
Mvmt Flow	11	5	0	5	5	82	5	196	16	103	201	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	526	638	110	527	635	110	213	0	0	213	0	0
Stage 1	414	414	-	216	216	-	-	-	-	-	-	-
Stage 2	112	224	-	311	419	-	-	-	-	-	-	-
Follow-up Headway	3.62	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.23	-	-
Pot Capacity-1 Maneuver	451	437	931	375	331	908	1355	-	-	1347	-	-
Stage 1	600	634	-	722	681	-	-	-	-	-	-	-
Stage 2	869	744	-	618	524	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	379	401	928	347	304	905	1352	-	-	1344	-	-
Mov Capacity-2 Maneuver	379	401	-	347	304	-	-	-	-	-	-	-
Stage 1	597	585	-	719	678	-	-	-	-	-	-	-
Stage 2	780	741	-	564	484	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	10.4	0.2	2.6
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1352	-	-	386	0	347	784	1344	-	-
HCM Lane V/C Ratio	0.004	-	-	0.042	+	0.01	0.113	0.077	-	-
HCM Control Delay (s)	7.673	-	-	14.7	0	15.5	10.2	7.901	-	-
HCM Lane LOS	A			B	A	C	B	A		
HCM 95th %tile Q(veh)	0.012	-	-	0.132	+	0.032	0.381	0.249	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	11.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	380	80	120	375	5	75	5	150	5	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Yield	Yield	Yield
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	413	87	130	408	5	82	5	163	5	5	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	413	0	0	500	0	0	1138	1141	457
Stage 1	-	-	-	-	-	-	467	467	-
Stage 2	-	-	-	-	-	-	671	674	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1146	-	-	1064	-	-	179	201	604
Stage 1	-	-	-	-	-	-	576	562	-
Stage 2	-	-	-	-	-	-	446	454	-
Time blocked-Platoon, %		-	-		-	-			
Mov Capacity-1 Maneuver	1146	-	-	1064	-	-	156	168	604
Mov Capacity-2 Maneuver	-	-	-	-	-	-	156	168	-
Stage 1	-	-	-	-	-	-	573	559	-
Stage 2	-	-	-	-	-	-	375	382	-

Approach	EB	WB	NB
HCM Control Delay, s	0.1	2.1	54.7
HCM LOS			F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	303	1146	-	-	1064	-	-
HCM Lane V/C Ratio	0.825	0.005	-	-	0.123	-	-
HCM Control Delay (s)	54.7	8.156	0	-	8.856	0	-
HCM Lane LOS	F	A	A		A	A	
HCM 95th %tile Q(veh)	6.921	0.014	-	-	0.418	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	90	10	5	165	230	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	11	5	179	250	82

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	481	291	332	0	-	0
Stage 1	291	-	-	-	-	-
Stage 2	190	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	544	748	1227	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	541	748	1227	-	-	-
Mov Capacity-2 Maneuver	541	-	-	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	838	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.2	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1227	-	556	-	-
HCM Lane V/C Ratio	0.004	-	0.195	-	-
HCM Control Delay (s)	7.947	0	13	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.013	-	0.72	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	30	5	10	25	25	275	10	25	250	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	33	5	11	27	27	299	11	27	272	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	723	709	291	723	723	304	310	0	0	310	0	0
Stage 1	345	345	-	359	359	-	-	-	-	-	-	-
Stage 2	378	364	-	364	364	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	342	359	748	342	352	736	1250	-	-	1250	-	-
Stage 1	671	636	-	659	627	-	-	-	-	-	-	-
Stage 2	644	624	-	655	624	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	309	341	748	310	334	736	1250	-	-	1250	-	-
Mov Capacity-2 Maneuver	309	341	-	310	334	-	-	-	-	-	-	-
Stage 1	654	619	-	642	611	-	-	-	-	-	-	-
Stage 2	593	608	-	605	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	12.9	0.6	0.6
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1250	-	-	564	500	1250	-	-
HCM Lane V/C Ratio	0.022	-	-	0.077	0.087	0.022	-	-
HCM Control Delay (s)	7.944	0	-	11.9	12.9	7.944	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.067	-	-	0.25	0.284	0.067	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	35	20	0	105	110	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	22	0	114	120	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	234	120	120	0	-	0
Stage 1	120	-	-	-	-	-
Stage 2	114	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	754	931	1468	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	754	931	1468	-	-	-
Mov Capacity-2 Maneuver	754	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	911	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1468	-	810	-	-
HCM Lane V/C Ratio	-	-	0.074	-	-
HCM Control Delay (s)	0	-	9.8	-	-
HCM Lane LOS	A		A		
HCM 95th %tile Q(veh)	0	-	0.238	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

PM PEAK HOUR

HCM Unsignalized Intersection Capacity Analysis
1: Lake Shore Blvd & Peter White Dr

4/24/2014

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	5	5	10	10	0	5	25	135	5	5	125	5
Sign Control		Yield			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	11	11	0	5	27	147	5	5	136	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	359	356	139	367	356	149	141			152		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	359	356	139	367	356	149	141			152		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	99	98	100	99	98			100		
cM capacity (veh/h)	583	557	910	568	557	897	1442			1429		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	22	16	179	147
Volume Left	5	11	27	5
Volume Right	11	5	5	5
cSH	701	647	1442	1429
Volume to Capacity	0.03	0.03	0.02	0.00
Queue Length 95th (ft)	2	2	1	0
Control Delay (s)	10.3	10.7	1.3	0.3
Lane LOS	B	B	A	A
Approach Delay (s)	10.3	10.7	1.3	0.3
Approach LOS	B	B		

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	65	100	70	115	110	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	109	76	125	120	65

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	429	152	185	0	-	0
Stage 1	152	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	583	894	1390	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	549	894	1390	-	-	-
Mov Capacity-2 Maneuver	549	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	2.9	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1390	-	717	-	-
HCM Lane V/C Ratio	0.055	-	0.25	-	-
HCM Control Delay (s)	7.74	0	11.7	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.174	-	0.986	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	45	45	40	60	5	40	5	40	20	35	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Stop
Storage Length	-	-	-	-	-	-	82	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	49	49	43	65	5	43	5	43	22	38	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	98	0	0	269	253	73	275	275	68
Stage 1	-	-	-	-	-	-	95	95	-	155	155	-
Stage 2	-	-	-	-	-	-	174	158	-	120	120	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1529	-	-	1495	-	-	684	650	989	677	632	995
Stage 1	-	-	-	-	-	-	912	816	-	847	769	-
Stage 2	-	-	-	-	-	-	828	767	-	884	796	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1529	-	-	1495	-	-	609	625	989	624	608	995
Mov Capacity-2 Maneuver	-	-	-	-	-	-	609	625	-	624	608	-
Stage 1	-	-	-	-	-	-	905	809	-	840	746	-
Stage 2	-	-	-	-	-	-	733	744	-	833	790	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	2.8	10.2	10.5
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	609	829	1529	-	-	1495	-	-	658	995
HCM Lane V/C Ratio	0.048	0.076	0.007	-	-	0.029	-	-	0.11	0.025
HCM Control Delay (s)	11.2	9.7	7.371	0	-	7.48	0	-	11.1	8.7
HCM Lane LOS	B	A	A	A		A	A		B	A
HCM 95th %tile Q(veh)	0.15	0.248	0.021	-	-	0.09	-	-	0.369	0.078

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	95	150	120	100	155	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	67	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	163	130	109	168	103

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	266	0	555	185
Stage 1	-	-	-	-	185	-
Stage 2	-	-	-	-	370	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1298	-	493	857
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	699	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1298	-	440	857
Mov Capacity-2 Maneuver	-	-	-	-	440	-
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	15
HCM LOS			C

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	440	857	-	-	1298	-
HCM Lane V/C Ratio	0.383	0.12	-	-	0.1	-
HCM Control Delay (s)	18.2	9.8	-	-	8.083	0
HCM Lane LOS	C	A			A	A
HCM 95th %tile Q(veh)	1.769	0.409	-	-	0.334	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	24.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	10	5	85	10	15	5	385	75	25	525	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	11	5	92	11	16	5	418	82	27	571	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	11.7	20.3	30.7
HCM LOS	B	B	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	25%	77%	5%
Vol Thru, %	83%	50%	9%	95%
Vol Right, %	16%	25%	14%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	465	20	110	555
LT Vol	385	10	10	525
Through Vol	75	5	15	5
RT Vol	5	5	85	25
Lane Flow Rate	505	22	120	603
Geometry Grp	1	1	1	1
Degree of Util (X)	0.72	0.042	0.223	0.855
Departure Headway (Hd)	5.13	6.886	6.7	5.103
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	703	517	534	712
Service Time	3.17	4.965	4.76	3.14
HCM Lane V/C Ratio	0.718	0.043	0.225	0.847
HCM Control Delay	20.3	10.3	11.7	30.7
HCM Lane LOS	C	B	B	D
HCM 95th-tile Q	6.2	0.1	0.8	9.9

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	10	60	0	15	0	45	480	5	5	355	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	11	65	0	16	0	49	522	5	5	386	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1032	1027	391	1062	1030	524	397	0	0	527	0	0
Stage 1	402	402	-	622	622	-	-	-	-	-	-	-
Stage 2	630	625	-	440	408	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	211	234	658	201	233	553	1162	-	-	1040	-	-
Stage 1	625	600	-	474	479	-	-	-	-	-	-	-
Stage 2	470	477	-	596	597	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	189	219	658	166	218	553	1162	-	-	1040	-	-
Mov Capacity-2 Maneuver	189	219	-	166	218	-	-	-	-	-	-	-
Stage 1	588	596	-	446	450	-	-	-	-	-	-	-
Stage 2	426	448	-	524	593	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17	22.8	0.7	0.1
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1162	-	-	393	218	1040	-	-
HCM Lane V/C Ratio	0.042	-	-	0.235	0.075	0.005	-	-
HCM Control Delay (s)	8.234	0	-	17	22.8	8.48	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.132	-	-	0.9	0.24	0.016	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.7
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	163	245	229
Demand Flow Rate, veh/h	166	250	233
Vehicles Circulating, veh/h	211	44	84
Vehicles Exiting, veh/h	106	333	210
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.8	5.6	5.7
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	166	250	233
Cap Entry Lane, veh/h	915	1081	1039
Entry HV Adj Factor	0.982	0.979	0.982
Flow Entry, veh/h	163	245	229
Cap Entry, veh/h	898	1059	1020
V/C Ratio	0.181	0.231	0.224
Control Delay, s/veh	5.8	5.6	5.7
LOS	A	A	A
95th %tile Queue, veh	1	1	1

Intersection	
Intersection Delay, s/veh	1.8

Movement	NBL	NBT	SBT	SBR	NEL	NER
Vol, veh/h	10	155	250	50	65	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	168	272	54	71	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	326	0	-	0	489	299
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	190	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1234	-	-	-	538	741
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	842	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1234	-	-	-	533	741
Mov Capacity-2 Maneuver	-	-	-	-	533	-
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	834	-

Approach	NB	SB	NE
HCM Control Delay, s	0.5	0	12.7
HCM LOS			B

Minor Lane / Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	544	1234	-	-	-
HCM Lane V/C Ratio	0.14	0.009	-	-	-
HCM Control Delay (s)	12.7	7.943	0	-	-
HCM Lane LOS	B	A	A		
HCM 95th %tile Q(veh)	0.484	0.027	-	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	40	145	30	10	100	10	35	30	25	10	35	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	5	5	2	2	11	2	2	5	2	2	2	2
Mvmt Flow	43	158	33	11	109	11	38	33	27	11	38	49
Number of Lanes	0	2	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9	8.8	8.6	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	39%	36%	0%	8%	11%
Vol Thru, %	33%	64%	71%	83%	39%
Vol Right, %	28%	0%	29%	8%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	113	103	120	90
LT Vol	30	73	73	100	35
Through Vol	25	0	30	10	45
RT Vol	35	40	0	10	10
Lane Flow Rate	98	122	111	130	98
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.131	0.182	0.154	0.172	0.126
Departure Headway (Hd)	4.836	5.347	4.962	4.747	4.651
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	740	670	722	754	769
Service Time	2.878	3.085	2.7	2.79	2.693
HCM Lane V/C Ratio	0.132	0.182	0.154	0.172	0.127
HCM Control Delay	8.6	9.3	8.6	8.8	8.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0.7	0.5	0.6	0.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.7

Movement	EBL	EBR	SET	SER	NWL	NWT
Vol, veh/h	25	80	110	10	65	155
Conflicting Peds, #/hr	10	5	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	19	2	2	10	2
Mvmt Flow	27	87	120	11	71	168

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	445	137	0	0	140	0
Stage 1	135	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Follow-up Headway	3.518	3.471	-	-	2.29	-
Pot Capacity-1 Maneuver	571	868	-	-	1395	-
Stage 1	891	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	532	857	-	-	1393	-
Mov Capacity-2 Maneuver	532	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	701	-	-	-	-	-

Approach	EB	SE	NW
HCM Control Delay, s	10.7	0	2.3
HCM LOS	B		

Minor Lane / Major Mvmt	NWL	NWT	EBLn1	SET	SER
Capacity (veh/h)	1393	-	748	-	-
HCM Lane V/C Ratio	0.051	-	0.153	-	-
HCM Control Delay (s)	7.722	0	10.7	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.16	-	0.537	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	8.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	65	250	275	90	315	215
Conflicting Peds, #/hr	0	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-5	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	11	2	4	4	3
Mvmt Flow	71	272	299	98	342	234

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1269	352	0	0	400	0
Stage 1	351	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Follow-up Headway	3.518	3.399	-	-	2.236	-
Pot Capacity-1 Maneuver	186	672	-	-	1148	-
Stage 1	713	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	130	670	-	-	1147	-
Mov Capacity-2 Maneuver	130	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	273	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.8	0	5.6
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	130	670	1147	-
HCM Lane V/C Ratio	-	-	0.543	0.406	0.299	-
HCM Control Delay (s)	-	-	61.6	14	9.469	-
HCM Lane LOS			F	B	A	
HCM 95th %tile Q(veh)	-	-	2.635	1.969	1.261	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	55	170	170	70	155	15	120	20	75	15	55	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	74	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	185	185	76	168	16	130	22	82	16	60	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	185	0	0	370	0	0	663	734	185	552	818	92
Stage 1	-	-	-	-	-	-	397	397	-	329	329	-
Stage 2	-	-	-	-	-	-	266	337	-	223	489	-
Follow-up Headway	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Capacity-1 Maneuver	1387	-	-	1185	-	-	347	346	826	416	309	947
Stage 1	-	-	-	-	-	-	600	602	-	658	645	-
Stage 2	-	-	-	-	-	-	716	640	-	759	548	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1387	-	-	1185	-	-	251	303	826	321	271	947
Mov Capacity-2 Maneuver	-	-	-	-	-	-	251	303	-	321	271	-
Stage 1	-	-	-	-	-	-	566	568	-	621	599	-
Stage 2	-	-	-	-	-	-	574	594	-	621	517	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	2.5	21.1	19.2
HCM LOS			C	C

Minor Lane / Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	251	427	1387	-	-	1185	-	-	366
HCM Lane V/C Ratio	0.346	0.344	0.043	-	-	0.064	-	-	0.312
HCM Control Delay (s)	26.8	17.8	7.712	0.1	-	8.246	0.2	-	19.2
HCM Lane LOS	D	C	A	A		A	A		C
HCM 95th %tile Q(veh)	1.483	1.506	0.135	-	-	0.206	-	-	1.305

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	185	60	20	170	80	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	201	65	22	185	87	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	266	0	370	133
Stage 1	-	-	-	-	234	-
Stage 2	-	-	-	-	136	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1295	-	603	892
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	876	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1295	-	592	892
Mov Capacity-2 Maneuver	-	-	-	-	592	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	859	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	11.7
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	660	-	-	1295	-
HCM Lane V/C Ratio	0.189	-	-	0.017	-
HCM Control Delay (s)	11.7	-	-	7.827	0.1
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.694	-	-	0.051	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	45	105	10	30	10	75	265	20	5	345	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	49	114	11	33	11	82	288	22	5	375	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	881	870	386	940	870	299	397	0	0	310	0	0
Stage 1	397	397	-	462	462	-	-	-	-	-	-	-
Stage 2	484	473	-	478	408	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	267	290	662	220	263	728	1162	-	-	1250	-	-
Stage 1	629	603	-	551	536	-	-	-	-	-	-	-
Stage 2	564	558	-	539	570	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	220	264	662	146	239	728	1162	-	-	1250	-	-
Mov Capacity-2 Maneuver	220	264	-	146	239	-	-	-	-	-	-	-
Stage 1	576	600	-	504	490	-	-	-	-	-	-	-
Stage 2	475	511	-	408	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.1	24.2	1.7	0.1
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1162	-	-	415	241	1250	-	-
HCM Lane V/C Ratio	0.07	-	-	0.432	0.226	0.004	-	-
HCM Control Delay (s)	8.332	0	-	20.1	24.2	7.893	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.226	-	-	2.129	0.843	0.013	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	0	10	10	5	70	5	10	70	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	11	0	11	11	5	76	5	11	76	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	202	193	79	201	193	79	82	0	0	82	0	0
Stage 1	101	101	-	90	90	-	-	-	-	-	-	-
Stage 2	101	92	-	111	103	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	756	702	981	757	702	981	1515	-	-	1515	-	-
Stage 1	905	811	-	917	820	-	-	-	-	-	-	-
Stage 2	905	819	-	894	810	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	733	694	981	733	694	981	1515	-	-	1515	-	-
Mov Capacity-2 Maneuver	733	694	-	733	694	-	-	-	-	-	-	-
Stage 1	902	805	-	914	818	-	-	-	-	-	-	-
Stage 2	880	817	-	865	804	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	9.6	0.5	0.9
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	784	813	1515	-	-
HCM Lane V/C Ratio	0.004	-	-	0.042	0.027	0.007	-	-
HCM Control Delay (s)	7.385	0	-	9.8	9.6	7.393	0	-
HCM Lane LOS	A	A		A	A	A	A	
HCM 95th %tile Q(veh)	0.011	-	-	0.13	0.082	0.022	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	25	20	0	20	5	20	130	5	5	110	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	27	22	0	22	5	22	141	5	5	120	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	334	323	122	346	324	144	125	0	0	147	0	0
Stage 1	133	133	-	188	188	-	-	-	-	-	-	-
Stage 2	201	190	-	158	136	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	620	595	929	608	594	903	1462	-	-	1435	-	-
Stage 1	870	786	-	814	745	-	-	-	-	-	-	-
Stage 2	801	743	-	844	784	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	590	583	929	564	582	903	1462	-	-	1435	-	-
Mov Capacity-2 Maneuver	590	583	-	564	582	-	-	-	-	-	-	-
Stage 1	856	783	-	801	733	-	-	-	-	-	-	-
Stage 2	760	731	-	792	781	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	11	1	0.3
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1462	-	-	686	627	1435	-	-
HCM Lane V/C Ratio	0.015	-	-	0.079	0.043	0.004	-	-
HCM Control Delay (s)	7.5	0	-	10.7	11	7.518	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.045	-	-	0.257	0.136	0.011	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	35	15	15	20	45	350	25	15	470	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	22	38	16	16	22	49	380	27	16	511	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1065	1059	522	1076	1057	394	533	0	0	408	0	0
Stage 1	554	554	-	492	492	-	-	-	-	-	-	-
Stage 2	511	505	-	584	565	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	200	224	555	197	225	655	1035	-	-	1151	-	-
Stage 1	517	514	-	558	548	-	-	-	-	-	-	-
Stage 2	545	540	-	498	508	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	171	206	555	159	207	655	1035	-	-	1151	-	-
Mov Capacity-2 Maneuver	171	206	-	159	207	-	-	-	-	-	-	-
Stage 1	485	504	-	524	515	-	-	-	-	-	-	-
Stage 2	479	507	-	435	498	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.9	23.1	0.9	0.2
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1035	-	-	297	253	1151	-	-
HCM Lane V/C Ratio	0.047	-	-	0.238	0.215	0.014	-	-
HCM Control Delay (s)	8.651	0	-	20.9	23.1	8.173	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.149	-	-	0.907	0.795	0.043	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	30	60	10	40	20	45	235	25	30	360	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	33	65	11	43	22	49	255	27	33	391	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	864	845	399	881	840	269	408	0	0	283	0	0
Stage 1	465	465	-	367	367	-	-	-	-	-	-	-
Stage 2	399	380	-	514	473	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	274	300	651	267	302	770	1151	-	-	1279	-	-
Stage 1	578	563	-	653	622	-	-	-	-	-	-	-
Stage 2	627	614	-	543	558	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	220	275	651	205	277	770	1151	-	-	1279	-	-
Mov Capacity-2 Maneuver	220	275	-	205	277	-	-	-	-	-	-	-
Stage 1	549	544	-	620	590	-	-	-	-	-	-	-
Stage 2	536	583	-	444	540	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.1	19.8	1.2	0.6
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1151	-	-	405	319	1279	-	-
HCM Lane V/C Ratio	0.042	-	-	0.268	0.239	0.025	-	-
HCM Control Delay (s)	8.266	0	-	17.1	19.8	7.888	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.133	-	-	1.07	0.912	0.078	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	15	25	35	205	210	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	27	38	223	228	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	544	245	261	0	-	0
Stage 1	245	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	500	794	1303	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	484	794	1303	-	-	-
Mov Capacity-2 Maneuver	484	-	-	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	1.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1303	-	640	-	-
HCM Lane V/C Ratio	0.029	-	0.068	-	-
HCM Control Delay (s)	7.846	0	11	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.09	-	0.218	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	15	20	130	220	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	16	22	141	239	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	432	247	255	0	-	0
Stage 1	247	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	581	792	1310	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	571	792	1310	-	-	-
Mov Capacity-2 Maneuver	571	-	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1310	-	686	-	-
HCM Lane V/C Ratio	0.017	-	0.04	-	-
HCM Control Delay (s)	7.794	0	10.5	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.051	-	0.124	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	15	5	5	25	5	10	25	10	0	30	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	16	5	5	27	5	11	27	11	0	33	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	106	95	35	100	92	33	38	0	0	38	0	0
Stage 1	35	35	-	54	54	-	-	-	-	-	-	-
Stage 2	71	60	-	46	38	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	873	795	1038	881	798	1041	1572	-	-	1572	-	-
Stage 1	981	866	-	958	850	-	-	-	-	-	-	-
Stage 2	939	845	-	968	863	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	841	789	1038	858	792	1041	1572	-	-	1572	-	-
Mov Capacity-2 Maneuver	841	789	-	858	792	-	-	-	-	-	-	-
Stage 1	974	866	-	951	844	-	-	-	-	-	-	-
Stage 2	898	839	-	945	863	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.6	1.6	0
HCM LOS	A	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1572	-	-	840	829	1572	-	-
HCM Lane V/C Ratio	0.007	-	-	0.039	0.046	-	-	-
HCM Control Delay (s)	7.306	0	-	9.5	9.6	0	-	-
HCM Lane LOS	A	A		A	A	A		
HCM 95th %tile Q(veh)	0.021	-	-	0.121	0.144	0	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	30	10	10	30	10	10	40	20	10	60	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	33	11	11	33	11	11	43	22	11	65	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.6	7.5	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	20%	20%	12%
Vol Thru, %	57%	60%	60%	75%
Vol Right, %	29%	20%	20%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	50	50	80
LT Vol	40	30	30	60
Through Vol	20	10	10	10
RT Vol	10	10	10	10
Lane Flow Rate	76	54	54	87
Geometry Grp	1	1	1	1
Degree of Util (X)	0.085	0.063	0.063	0.1
Departure Headway (Hd)	4.045	4.178	4.178	4.13
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	844	844	857
Service Time	2.124	2.269	2.269	2.204
HCM Lane V/C Ratio	0.087	0.064	0.064	0.102
HCM Control Delay	7.5	7.6	7.6	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.2	0.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	30	10	15	30	25	10	280	25	45	390	25
Conflicting Peds, #/hr	0	0	3	3	0	0	10	0	6	6	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	30	-	-	50	-	-	74	-	-	71	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-8	-	-	3	-	-	-2	-	-	4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	4	2	2	2	2	2	3	2
Mvmt Flow	16	33	11	16	33	27	11	304	27	49	424	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	911	894	451	903	895	331	454	0	0	335	0	0
Stage 1	538	538	-	343	343	-	-	-	-	-	-	-
Stage 2	373	356	-	560	552	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.036	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	382	417	672	222	239	691	1107	-	-	1224	-	-
Stage 1	670	663	-	635	599	-	-	-	-	-	-	-
Stage 2	764	737	-	467	467	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	310	394	665	195	226	683	1099	-	-	1213	-	-
Mov Capacity-2 Maneuver	310	394	-	195	226	-	-	-	-	-	-	-
Stage 1	662	635	-	627	591	-	-	-	-	-	-	-
Stage 2	680	728	-	415	447	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.1	20.5	0.3	0.8
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1099	-	-	310	419	195	308	1213	-	-
HCM Lane V/C Ratio	0.01	-	-	0.035	0.117	0.056	0.212	0.04	-	-
HCM Control Delay (s)	8.308	-	-	17	14.7	24.5	19.8	8.093	-	-
HCM Lane LOS	A			C	B	C	C	A		
HCM 95th %tile Q(veh)	0.03	-	-	0.109	0.393	0.176	0.786	0.126	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	35	20	60	20	5	25	240	15	10	180	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	38	22	65	22	5	27	261	16	11	196	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	9.2	10.5	9.6
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	15%	71%	5%
Vol Thru, %	86%	54%	24%	92%
Vol Right, %	5%	31%	6%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	280	65	85	195
LT Vol	240	35	20	180
Through Vol	15	20	5	5
RT Vol	25	10	60	10
Lane Flow Rate	304	71	92	212
Geometry Grp	1	1	1	1
Degree of Util (X)	0.388	0.1	0.137	0.277
Departure Headway (Hd)	4.591	5.102	5.323	4.701
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	782	697	669	761
Service Time	2.638	3.176	3.393	2.752
HCM Lane V/C Ratio	0.389	0.102	0.138	0.279
HCM Control Delay	10.5	8.8	9.2	9.6
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.8	0.3	0.5	1.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	50	80	45	5	10	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	87	49	5	11	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	54	0	-	0	248	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	196	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1551	-	-	-	740	1016
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	837	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1551	-	-	-	713	1016
Mov Capacity-2 Maneuver	-	-	-	-	713	-
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	806	-

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	9.1
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1551	-	-	-	936
HCM Lane V/C Ratio	0.035	-	-	-	0.058
HCM Control Delay (s)	7.405	0	-	-	9.1
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.109	-	-	-	0.185

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	0	5	10	10	10	200	10	5	205	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	5	11	11	11	217	11	5	223	71

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	524	519	258	514	549	223	293	0	0	228	0	0
Stage 1	269	269	-	245	245	-	-	-	-	-	-	-
Stage 2	255	250	-	269	304	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	464	461	781	471	443	817	1269	-	-	1340	-	-
Stage 1	737	687	-	759	703	-	-	-	-	-	-	-
Stage 2	749	700	-	737	663	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	444	454	781	466	436	817	1269	-	-	1340	-	-
Mov Capacity-2 Maneuver	444	454	-	466	436	-	-	-	-	-	-	-
Stage 1	730	684	-	751	696	-	-	-	-	-	-	-
Stage 2	720	693	-	733	660	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12	0.4	0.1
HCM LOS	A	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1269	-	-	0	545	1340	-	-
HCM Lane V/C Ratio	0.009	-	-	+	0.05	0.004	-	-
HCM Control Delay (s)	7.861	0	-	0	12	7.698	0	-
HCM Lane LOS	A	A		A	B	A	A	
HCM 95th %tile Q(veh)	0.026	-	-	+	0.157	0.012	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	11.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	110	20	20	15	75	10	15	100	10	10	170	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	120	22	22	16	82	11	16	109	11	11	185	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	43	0	0	506	397	33	452	403	87
Stage 1	-	-	-	-	-	-	272	272	-	120	120	-
Stage 2	-	-	-	-	-	-	234	125	-	332	283	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1503	-	-	1566	-	-	477	540	1041	518	536	971
Stage 1	-	-	-	-	-	-	734	685	-	884	796	-
Stage 2	-	-	-	-	-	-	769	792	-	681	677	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1503	-	-	1566	-	-	300	490	1041	396	487	971
Mov Capacity-2 Maneuver	-	-	-	-	-	-	300	490	-	396	487	-
Stage 1	-	-	-	-	-	-	674	629	-	812	787	-
Stage 2	-	-	-	-	-	-	556	783	-	512	621	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.6	1.1	15.6	17.3
HCM LOS			C	C

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	474	1503	-	-	1566	-	-	529
HCM Lane V/C Ratio	0.287	0.08	-	-	0.01	-	-	0.452
HCM Control Delay (s)	15.6	7.602	0	-	7.323	0	-	17.3
HCM Lane LOS	C	A	A		A	A		C
HCM 95th %tile Q(veh)	1.173	0.259	-	-	0.032	-	-	2.326

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	25	35	130	55	40	30	55	425	100	20	465	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	38	141	60	43	33	60	462	109	22	505	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1226	1258	524	1223	1223	516	543	0	0	571	0	0
Stage 1	568	568	-	636	636	-	-	-	-	-	-	-
Stage 2	658	690	-	587	587	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	155	171	553	156	179	559	1026	-	-	1002	-	-
Stage 1	508	506	-	466	472	-	-	-	-	-	-	-
Stage 2	453	446	-	496	497	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	110	157	553	89	165	559	1026	-	-	1002	-	-
Mov Capacity-2 Maneuver	110	157	-	89	165	-	-	-	-	-	-	-
Stage 1	478	495	-	439	444	-	-	-	-	-	-	-
Stage 2	362	420	-	333	486	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.8	117.6	0.8	0.3
HCM LOS	D	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1026	-	-	195	553	120	559	1002	-	-
HCM Lane V/C Ratio	0.058	-	-	0.576	0.17	0.951	0.039	0.022	-	-
HCM Control Delay (s)	8.726	-	-	45.9	12.8	137.8	11.7	8.672	-	-
HCM Lane LOS	A			E	B	F	B	A		
HCM 95th %tile Q(veh)	0.185	-	-	3.128	0.609	6.186	0.121	0.066	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	60	15	10	55	60	5	170	20	100	230	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	65	16	11	60	65	5	185	22	109	250	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	747	695	261	726	696	196	272	0	0	207	0	0
Stage 1	478	478	-	207	207	-	-	-	-	-	-	-
Stage 2	269	217	-	519	489	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	329	366	778	340	365	845	1291	-	-	1364	-	-
Stage 1	568	556	-	795	731	-	-	-	-	-	-	-
Stage 2	737	723	-	540	549	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	242	330	778	262	329	845	1291	-	-	1364	-	-
Mov Capacity-2 Maneuver	242	330	-	262	329	-	-	-	-	-	-	-
Stage 1	566	504	-	792	728	-	-	-	-	-	-	-
Stage 2	622	720	-	417	497	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.5	16.4	0.2	2.2
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1291	-	-	335	452	1364	-	-
HCM Lane V/C Ratio	0.004	-	-	0.308	0.301	0.08	-	-
HCM Control Delay (s)	7.8	0	-	20.5	16.4	7.868	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.013	-	-	1.28	1.25	0.259	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	45	10	10	45	25	10	90	10	40	185	20
Conflicting Peds, #/hr	29	0	4	4	0	29	2	0	4	4	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	6	-	-	-2	-	-	5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	14	2	2	2	2	2	2	2	7	2	9
Mvmt Flow	11	49	11	11	49	27	11	98	11	43	201	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	520	487	245	512	493	136	252	0	0	138	0	0
Stage 1	328	328	-	154	154	-	-	-	-	-	-	-
Stage 2	192	159	-	358	339	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.126	3.318	3.518	4.018	3.318	2.218	-	-	2.263	-	-
Pot Capacity-1 Maneuver	524	517	816	398	405	892	1313	-	-	1415	-	-
Stage 1	737	673	-	806	732	-	-	-	-	-	-	-
Stage 2	845	771	-	586	572	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	427	466	792	337	365	859	1308	-	-	1409	-	-
Mov Capacity-2 Maneuver	427	466	-	337	365	-	-	-	-	-	-	-
Stage 1	711	632	-	773	702	-	-	-	-	-	-	-
Stage 2	751	739	-	513	538	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	15.2	0.7	1.2
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1308	-	-	490	439	1409	-	-
HCM Lane V/C Ratio	0.008	-	-	0.144	0.198	0.031	-	-
HCM Control Delay (s)	7.775	0	-	13.6	15.2	7.636	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.025	-	-	0.501	0.729	0.095	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	5	5	60	5	35	5	195	10	15	360	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	1	-	-	-3	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	14	25	2	2	2	11	2	2	2
Mvmt Flow	0	5	5	65	5	38	5	212	11	16	391	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	677	661	394	660	657	217	397	0	0	223	0	0
Stage 1	427	427	-	228	228	-	-	-	-	-	-	-
Stage 2	250	234	-	432	429	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.626	4.225	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	410	427	677	347	344	818	1162	-	-	1346	-	-
Stage 1	650	628	-	739	666	-	-	-	-	-	-	-
Stage 2	786	739	-	565	534	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	380	418	677	336	337	818	1162	-	-	1346	-	-
Mov Capacity-2 Maneuver	380	418	-	336	337	-	-	-	-	-	-	-
Stage 1	647	619	-	735	663	-	-	-	-	-	-	-
Stage 2	740	735	-	547	526	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	16.4	0.2	0.3
HCM LOS	B	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1162	-	-	517	423	1346	-	-
HCM Lane V/C Ratio	0.005	-	-	0.021	0.257	0.012	-	-
HCM Control Delay (s)	8.113	0	-	12.1	16.4	7.707	0	-
HCM Lane LOS	A	A		B	C	A	A	
HCM 95th %tile Q(veh)	0.014	-	-	0.064	1.011	0.037	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	45	55	20	30	15	20	180	5	20	370	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-3	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	49	60	22	33	16	22	196	5	22	402	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	723	702	413	753	709	198	424	0	0	201	0	0
Stage 1	457	457	-	242	242	-	-	-	-	-	-	-
Stage 2	266	245	-	511	467	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	342	362	639	326	359	843	1135	-	-	1371	-	-
Stage 1	583	568	-	762	705	-	-	-	-	-	-	-
Stage 2	739	703	-	545	562	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	301	347	639	255	344	843	1135	-	-	1371	-	-
Mov Capacity-2 Maneuver	301	347	-	255	344	-	-	-	-	-	-	-
Stage 1	570	556	-	745	689	-	-	-	-	-	-	-
Stage 2	675	688	-	441	550	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.7	17.7	0.8	0.4
HCM LOS	C	C		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1135	-	-	433	354	1371	-	-
HCM Lane V/C Ratio	0.019	-	-	0.289	0.2	0.016	-	-
HCM Control Delay (s)	8.234	0	-	16.7	17.7	7.668	0	-
HCM Lane LOS	A	A		C	C	A	A	
HCM 95th %tile Q(veh)	0.059	-	-	1.181	0.733	0.048	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	0	130	0	0	0	35	560	0	5	660	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	54	-	-	-	-	-	52	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	0	141	0	0	0	38	609	0	5	717	27

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	1122	1427	372				745	0	0	609	0	0
Stage 1	742	742	-				-	-	-	-	-	-
Stage 2	380	685	-				-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32				2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	200	134	625				859	-	-	966	-	-
Stage 1	432	420	-				-	-	-	-	-	-
Stage 2	661	447	-				-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	185	0	625				859	-	-	966	-	-
Mov Capacity-2 Maneuver	185	0	-				-	-	-	-	-	-
Stage 1	428	0	-				-	-	-	-	-	-
Stage 2	617	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.7	0.1
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	859	-	-	432	625	966	-	-
HCM Lane V/C Ratio	0.044	-	-	0.134	0.151	0.006	-	-
HCM Control Delay (s)	9.385	0.2	-	14.6	11.8	8.748	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.139	-	-	0.46	0.528	0.017	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	13.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	65	140	0	0	50	105	5	10	10	180	5	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	86	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	152	0	0	54	114	5	11	11	196	5	71

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	543	465	41	535	494	16	76	0	0	22	0	0
Stage 1	432	432	-	27	27	-	-	-	-	-	-	-
Stage 2	111	33	-	508	467	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	451	495	1030	456	476	1063	1523	-	-	1593	-	-
Stage 1	602	582	-	990	873	-	-	-	-	-	-	-
Stage 2	894	868	-	547	562	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	328	433	1030	302	416	1063	1523	-	-	1593	-	-
Mov Capacity-2 Maneuver	328	433	-	302	416	-	-	-	-	-	-	-
Stage 1	600	510	-	987	870	-	-	-	-	-	-	-
Stage 2	746	865	-	337	493	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.5	11.7	1.5	5.5
HCM LOS	D	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1523	-	-	393	708	1593	-	-
HCM Lane V/C Ratio	0.004	-	-	0.567	0.238	0.123	-	-
HCM Control Delay (s)	7.372	0	-	25.5	11.7	7.576	-	-
HCM Lane LOS	A	A		D	B	A		
HCM 95th %tile Q(veh)	0.011	-	-	3.388	0.924	0.419	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	75	105	10	0	90	25	5	0	0	105	5	90
Conflicting Peds, #/hr	2	0	3	3	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	4	-	-	-6	-	-	7	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	6	2	3
Mvmt Flow	82	114	11	0	98	27	5	0	0	114	5	98

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	362	300	57	362	349	3	106	0	0	3	0	0
Stage 1	286	286	-	14	14	-	-	-	-	-	-	-
Stage 2	76	14	-	348	335	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Capacity-1 Maneuver	670	677	1019	548	532	1081	1485	-	-	1593	-	-
Stage 1	793	743	-	1003	881	-	-	-	-	-	-	-
Stage 2	957	888	-	618	596	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	518	619	1016	436	486	1076	1485	-	-	1593	-	-
Mov Capacity-2 Maneuver	518	619	-	436	486	-	-	-	-	-	-	-
Stage 1	789	684	-	996	875	-	-	-	-	-	-	-
Stage 2	826	882	-	470	549	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	13.4	7.4	3.9
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1485	-	-	586	552	1593	-	-
HCM Lane V/C Ratio	0.004	-	-	0.352	0.226	0.072	-	-
HCM Control Delay (s)	7.433	0	-	14.4	13.4	7.434	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.011	-	-	1.58	0.864	0.231	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	165	5	5	180	5	5	5	10	20	5	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	179	5	5	196	5	5	5	11	22	5	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	201	0	0	185	0	0	489	459	182	464	459	198
Stage 1	-	-	-	-	-	-	247	247	-	209	209	-
Stage 2	-	-	-	-	-	-	242	212	-	255	250	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1371	-	-	1390	-	-	489	499	861	508	499	843
Stage 1	-	-	-	-	-	-	757	702	-	793	729	-
Stage 2	-	-	-	-	-	-	762	727	-	749	700	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1371	-	-	1390	-	-	441	485	861	487	485	843
Mov Capacity-2 Maneuver	-	-	-	-	-	-	441	485	-	487	485	-
Stage 1	-	-	-	-	-	-	739	685	-	774	726	-
Stage 2	-	-	-	-	-	-	700	724	-	716	683	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.2	11.2	11
HCM LOS			B	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	601	1371	-	-	1390	-	-	686
HCM Lane V/C Ratio	0.036	0.024	-	-	0.004	-	-	0.127
HCM Control Delay (s)	11.2	7.69	-	-	7.6	0	-	11
HCM Lane LOS	B	A			A	A		B
HCM 95th %tile Q(veh)	0.112	0.073	-	-	0.012	-	-	0.433

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	110	80	70	165	5	85	35	35	5	15	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	120	87	76	179	5	92	38	38	5	16	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	185	0	0	207	0	0	530	522	163	557	562	182
Stage 1	-	-	-	-	-	-	185	185	-	334	334	-
Stage 2	-	-	-	-	-	-	345	337	-	223	228	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1390	-	-	1364	-	-	460	459	882	441	436	861
Stage 1	-	-	-	-	-	-	817	747	-	680	643	-
Stage 2	-	-	-	-	-	-	671	641	-	780	715	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1390	-	-	1364	-	-	419	427	882	372	405	861
Mov Capacity-2 Maneuver	-	-	-	-	-	-	419	427	-	372	405	-
Stage 1	-	-	-	-	-	-	810	740	-	674	603	-
Stage 2	-	-	-	-	-	-	609	601	-	702	709	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.3	16.6	13.6
HCM LOS			C	B

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	478	1390	-	-	1364	-	-	444
HCM Lane V/C Ratio	0.352	0.008	-	-	0.056	-	-	0.061
HCM Control Delay (s)	16.6	7.61	0	-	7.795	0	-	13.6
HCM Lane LOS	C	A	A		A	A		B
HCM 95th %tile Q(veh)	1.569	0.024	-	-	0.177	-	-	0.195

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	5	5	190	0	60	5	165	95	100	305	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Yield	Yield	Yield	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	7	-	-	-4	-	-	8	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	33	2	14	2	33	2	2	6	2	6	2	2
Mvmt Flow	0	5	5	207	0	65	5	179	103	109	332	5

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	614	478	0	587	446	33
Stage 1	-	-	-	0	0	-	446	446	-
Stage 2	-	-	-	614	478	-	141	0	-
Follow-up Headway	-	-	-	3.518	4.054	-	3.554	4.018	3.318
Pot Capacity-1 Maneuver	-	-	-	308	389	-	443	533	1042
Stage 1	-	-	-	-	-	-	613	603	-
Stage 2	-	-	-	365	444	-	-	-	-
Time blocked-Platoon, %		-	-						
Mov Capacity-1 Maneuver	-	-	-	154	389	-	-	533	1042
Mov Capacity-2 Maneuver	-	-	-	154	389	-	-	533	-
Stage 1	-	-	-	-	-	-	613	603	-
Stage 2	-	-	-	163	444	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	+	+
HCM LOS		-	-

Minor Lane / Major Mvmt	NBLn1	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	-	-	-	+
HCM Lane V/C Ratio	+	-	-	-	+
HCM Control Delay (s)	+	-	-	-	+
HCM Lane LOS	+				+
HCM 95th %tile Q(veh)	+	-	-	-	+

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	20	10	180	25	10	5	15	190	5	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	22	11	196	27	11	5	16	207	5	33	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	192	277	33	190	173	120	33	0	0	223	0	0
Stage 1	43	43	-	130	130	-	-	-	-	-	-	-
Stage 2	149	234	-	60	43	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	768	631	1041	770	720	931	1579	-	-	1346	-	-
Stage 1	971	859	-	874	789	-	-	-	-	-	-	-
Stage 2	854	711	-	951	859	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	733	626	1041	737	714	931	1579	-	-	1346	-	-
Mov Capacity-2 Maneuver	733	626	-	737	714	-	-	-	-	-	-	-
Stage 1	967	856	-	871	786	-	-	-	-	-	-	-
Stage 2	812	708	-	914	856	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	12.1	0.2	1.1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1579	-	-	723	741	1346	-	-
HCM Lane V/C Ratio	0.003	-	-	0.053	0.315	0.004	-	-
HCM Control Delay (s)	7.288	0	-	10.3	12.1	7.685	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.01	-	-	0.166	1.353	0.012	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	0	0	10	10	15	0	95	10	20	120	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	0	11	11	16	0	103	11	22	130	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	301	293	136	288	294	109	141	0	0	114	0	0
Stage 1	179	179	-	109	109	-	-	-	-	-	-	-
Stage 2	122	114	-	179	185	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	651	618	913	664	617	945	1442	-	-	1475	-	-
Stage 1	823	751	-	896	805	-	-	-	-	-	-	-
Stage 2	882	801	-	823	747	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	623	608	913	656	607	945	1442	-	-	1475	-	-
Mov Capacity-2 Maneuver	623	608	-	656	607	-	-	-	-	-	-	-
Stage 1	823	739	-	896	805	-	-	-	-	-	-	-
Stage 2	855	801	-	810	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	10.2	0	1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1442	-	-	623	735	1475	-	-
HCM Lane V/C Ratio	-	-	-	0.009	0.052	0.015	-	-
HCM Control Delay (s)	0	-	-	10.8	10.2	7.477	0	-
HCM Lane LOS	A			B	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.026	0.163	0.045	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	25	0	10	30	15	5	35	15	20	25	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	27	0	11	33	16	5	38	16	22	27	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	27	0	0	136	120	27	139	112	41
Stage 1	-	-	-	-	-	-	49	49	-	63	63	-
Stage 2	-	-	-	-	-	-	87	71	-	76	49	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1558	-	-	1587	-	-	835	770	1048	831	778	1030
Stage 1	-	-	-	-	-	-	964	854	-	948	842	-
Stage 2	-	-	-	-	-	-	921	836	-	933	854	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1558	-	-	1587	-	-	787	759	1048	778	767	1030
Mov Capacity-2 Maneuver	-	-	-	-	-	-	787	759	-	778	767	-
Stage 1	-	-	-	-	-	-	957	848	-	941	836	-
Stage 2	-	-	-	-	-	-	866	830	-	871	848	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	1.3	9.7	9.7
HCM LOS			A	A

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	824	1558	-	-	1587	-	-	836
HCM Lane V/C Ratio	0.073	0.007	-	-	0.007	-	-	0.085
HCM Control Delay (s)	9.7	7.327	0	-	7.284	0	-	9.7
HCM Lane LOS	A	A	A		A	A		A
HCM 95th %tile Q(veh)	0.234	0.021	-	-	0.021	-	-	0.276

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	20	15	20	25	30	15	145	10	35	205	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	22	16	22	27	33	16	158	11	38	223	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	533	508	231	522	511	163	239	0	0	168	0	0
Stage 1	307	307	-	196	196	-	-	-	-	-	-	-
Stage 2	226	201	-	326	315	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	458	468	808	465	466	882	1328	-	-	1410	-	-
Stage 1	703	661	-	806	739	-	-	-	-	-	-	-
Stage 2	777	735	-	687	656	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	407	448	808	424	446	882	1328	-	-	1410	-	-
Mov Capacity-2 Maneuver	407	448	-	424	446	-	-	-	-	-	-	-
Stage 1	694	641	-	796	729	-	-	-	-	-	-	-
Stage 2	711	725	-	630	636	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	12.7	0.7	1
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1328	-	-	490	546	1410	-	-
HCM Lane V/C Ratio	0.012	-	-	0.122	0.149	0.027	-	-
HCM Control Delay (s)	7.745	0	-	13.4	12.7	7.624	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.037	-	-	0.414	0.522	0.083	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	55	10	5	40	20	790	5	40	1215	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	340	-	-	99	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	60	11	5	43	22	859	5	43	1321	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1900	2332	677	1655	2345	432	1353	0	0	864	0	0
Stage 1	1424	1424	-	905	905	-	-	-	-	-	-	-
Stage 2	476	908	-	750	1440	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	42	36	395	64	36	572	504	-	-	774	-	-
Stage 1	143	200	-	298	353	-	-	-	-	-	-	-
Stage 2	539	352	-	369	196	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	31	33	395	44	33	572	504	-	-	774	-	-
Mov Capacity-2 Maneuver	31	33	-	44	33	-	-	-	-	-	-	-
Stage 1	137	189	-	285	338	-	-	-	-	-	-	-
Stage 2	469	337	-	287	185	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	52	59.2	0.3	0.3
HCM LOS	F	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	504	-	-	144	123	774	-	-
HCM Lane V/C Ratio	0.043	-	-	0.491	0.486	0.056	-	-
HCM Control Delay (s)	12.465	-	-	52	59.2	9.928	-	-
HCM Lane LOS	B			F	F	A		
HCM 95th %tile Q(veh)	0.135	-	-	2.308	2.216	0.178	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Vol, veh/h	10	0	5	15	0	25	0	135	35	35	175	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	0	5	16	0	27	0	147	38	38	190	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	448	454	193	438	438	166	196	0	0	185	0	0
Stage 1	269	269	-	166	166	-	-	-	-	-	-	-
Stage 2	179	185	-	272	272	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	521	502	849	529	512	878	1377	-	-	1390	-	-
Stage 1	737	687	-	836	761	-	-	-	-	-	-	-
Stage 2	823	747	-	734	685	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	493	486	849	513	496	878	1377	-	-	1390	-	-
Mov Capacity-2 Maneuver	493	486	-	513	496	-	-	-	-	-	-	-
Stage 1	737	666	-	836	761	-	-	-	-	-	-	-
Stage 2	798	747	-	707	664	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	11.5	10.5	0	1.2
HCM LOS	B	B		

Minor Lane / Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1377	-	-	693	573	1390	-	-
HCM Lane V/C Ratio	-	-	-	0.063	0.028	0.027	-	-
HCM Control Delay (s)	0	-	-	10.5	11.5	7.663	0	-
HCM Lane LOS	A			B	B	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.2	0.088	0.084	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.2

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	110	5	15	90	155	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	120	5	16	98	168	103

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	350	220	272	0	-	0
Stage 1	220	-	-	-	-	-
Stage 2	130	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	647	820	1291	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	639	820	1291	-	-	-
Mov Capacity-2 Maneuver	639	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	884	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	11.9	1.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1291	-	645	-	-
HCM Lane V/C Ratio	0.013	-	0.194	-	-
HCM Control Delay (s)	7.824	0	11.9	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.038	-	0.713	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	35	125	95	10	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	136	103	11	11	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	114	0	-	0	321	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	212	-
Follow-up Headway	2.218	-	-	-	3.518	3.318
Pot Capacity-1 Maneuver	1475	-	-	-	673	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	823	-
Time blocked-Platoon, %		-	-	-		
Mov Capacity-1 Maneuver	1475	-	-	-	654	945
Mov Capacity-2 Maneuver	-	-	-	-	654	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	800	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	9.5
HCM LOS			A

Minor Lane / Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1475	-	-	-	850
HCM Lane V/C Ratio	0.026	-	-	-	0.051
HCM Control Delay (s)	7.505	0	-	-	9.5
HCM Lane LOS	A	A			A
HCM 95th %tile Q(veh)	0.079	-	-	-	0.161

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.6

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Vol, veh/h	235	60	30	425	125	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	1000	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	6	40	18	28	25
Mvmt Flow	255	65	33	462	136	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	321	0	584	160
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	296	-
Follow-up Headway	-	-	2.6	-	3.78	3.55
Pot Capacity-1 Maneuver	-	-	1002	-	362	782
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	636	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1002	-	350	782
Mov Capacity-2 Maneuver	-	-	-	-	350	-
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	615	-

Approach	NB	SB	SW
HCM Control Delay, s	0	0.6	21.2
HCM LOS			C

Minor Lane / Major Mvmt	NBT	NBR	SBL	SBT	SWLn1
Capacity (veh/h)	-	-	1002	-	372
HCM Lane V/C Ratio	-	-	0.033	-	0.409
HCM Control Delay (s)	-	-	8.714	-	21.2
HCM Lane LOS			A		C
HCM 95th %tile Q(veh)	-	-	0.101	-	1.94

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	0	20	35	30	75	10	210	0	5	355	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	84	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	0	22	38	33	82	11	228	0	5	386	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	715	658	397	668	668	228	408	0	0	228	0	0
Stage 1	408	408	-	250	250	-	-	-	-	-	-	-
Stage 2	307	250	-	418	418	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	346	384	652	372	379	811	1151	-	-	1340	-	-
Stage 1	620	597	-	754	700	-	-	-	-	-	-	-
Stage 2	703	700	-	612	591	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	287	378	652	355	373	811	1151	-	-	1340	-	-
Mov Capacity-2 Maneuver	287	378	-	355	373	-	-	-	-	-	-	-
Stage 1	613	594	-	746	692	-	-	-	-	-	-	-
Stage 2	596	692	-	589	588	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.1	13.7	0.4	0.1
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1151	-	-	399	355	567	1340	-	-
HCM Lane V/C Ratio	0.009	-	-	0.109	0.071	0.224	0.004	-	-
HCM Control Delay (s)	8.158	0	-	15.1	15.9	13.2	7.698	0	-
HCM Lane LOS	A	A		C	C	B	A	A	
HCM 95th %tile Q(veh)	0.029	-	-	0.364	0.23	0.851	0.012	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	16.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	70	35	130	15	30	35	90	380	35	20	510	125
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	108	-	-	60	-	-	120	-	-	55	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-2	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	2	2	14	18	2	2	4	2	2	3	7
Mvmt Flow	76	38	141	16	33	38	98	413	38	22	554	136

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1331	1315	625	1385	1364	435	691	0	0	452	0	0
Stage 1	667	667	-	629	629	-	-	-	-	-	-	-
Stage 2	664	648	-	756	735	-	-	-	-	-	-	-
Follow-up Headway	3.644	4.018	3.318	3.626	4.162	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	123	158	485	114	137	621	904	-	-	1109	-	-
Stage 1	426	457	-	451	451	-	-	-	-	-	-	-
Stage 2	428	466	-	383	403	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	82	138	483	57	119	619	902	-	-	1107	-	-
Mov Capacity-2 Maneuver	82	138	-	57	119	-	-	-	-	-	-	-
Stage 1	379	447	-	402	402	-	-	-	-	-	-	-
Stage 2	328	415	-	242	395	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	81.3	45.2	1.7	0.3
HCM LOS	F	E		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	902	-	-	82	233	57	177	1107	-	-
HCM Lane V/C Ratio	0.108	-	-	0.619	0.879	0.191	0.43	0.02	-	-
HCM Control Delay (s)	9.476	-	-	103	75.9	82.5	39.9	8.317	-	-
HCM Lane LOS	A			F	F	F	E	A		
HCM 95th %tile Q(veh)	0.364	-	-	2.825	7.17	0.637	1.958	0.06	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	35	20	115	30	15	60	35	425	10	65	485	85
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	6	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	22	125	33	16	65	38	462	11	71	527	92

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1030	1264	310	959	1304	236	620	0	0	473	0	0
Stage 1	715	715	-	543	543	-	-	-	-	-	-	-
Stage 2	315	549	-	416	761	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	188	168	686	211	159	766	956	-	-	1085	-	-
Stage 1	388	433	-	492	518	-	-	-	-	-	-	-
Stage 2	671	515	-	585	412	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	139	143	686	135	135	766	956	-	-	1085	-	-
Mov Capacity-2 Maneuver	139	143	-	135	135	-	-	-	-	-	-	-
Stage 1	367	389	-	465	490	-	-	-	-	-	-	-
Stage 2	561	487	-	406	370	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.6	30.1	0.8	1.1
HCM LOS	D	D		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	956	-	-	304	255	1085	-	-
HCM Lane V/C Ratio	0.04	-	-	0.608	0.448	0.065	-	-
HCM Control Delay (s)	8.922	0.2	-	33.6	30.1	8.549	0.3	-
HCM Lane LOS	A	A		D	D	A	A	
HCM 95th %tile Q(veh)	0.124	-	-	3.721	2.164	0.209	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	10.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	155	0	110	0	0	5	45	340	0	5	505	235
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	244	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	168	0	120	0	0	5	49	370	0	5	549	255

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	971	1155	402	752	1282	185	804	0	0	370	0	0
Stage 1	688	688	-	467	467	-	-	-	-	-	-	-
Stage 2	283	467	-	285	815	-	-	-	-	-	-	-
Follow-up Headway	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Capacity-1 Maneuver	207	196	598	299	164	826	816	-	-	1185	-	-
Stage 1	403	445	-	545	560	-	-	-	-	-	-	-
Stage 2	700	560	-	698	389	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	193	180	598	224	150	826	816	-	-	1185	-	-
Mov Capacity-2 Maneuver	193	180	-	224	150	-	-	-	-	-	-	-
Stage 1	372	441	-	504	517	-	-	-	-	-	-	-
Stage 2	643	517	-	554	386	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	55.1	9.4	1.4	0.1
HCM LOS	F	A		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	816	-	-	193	598	826	1185	-	-
HCM Lane V/C Ratio	0.06	-	-	0.873	0.2	0.007	0.005	-	-
HCM Control Delay (s)	9.693	0.3	-	85.3	12.5	9.4	8.052	0	-
HCM Lane LOS	A	A		F	B	A	A	A	
HCM 95th %tile Q(veh)	0.191	-	-	6.562	0.741	0.02	0.014	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	18.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	45	60	25	70	85	20	40	265	45	40	500	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	5	8	12	2	2	2	2	8	2	15	19
Mvmt Flow	49	65	27	76	92	22	43	288	49	43	543	76
Number of Lanes	1	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	13.2	13.8	14.6	23
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	66%	0%	71%	0%	81%	0%	100%	70%
Vol Right, %	0%	0%	34%	0%	29%	0%	19%	0%	0%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	177	133	45	85	70	105	40	333	237
LT Vol	0	177	88	0	60	0	85	0	333	167
Through Vol	0	0	45	0	25	0	20	0	0	70
RT Vol	40	0	0	45	0	70	0	40	0	0
Lane Flow Rate	43	192	145	49	92	76	114	43	362	257
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.1	0.413	0.306	0.122	0.213	0.19	0.259	0.092	0.741	0.516
Departure Headway (Hd)	8.25	7.74	7.603	8.998	8.318	8.972	8.16	7.647	7.362	7.221
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	434	465	472	398	431	399	439	468	493	499
Service Time	6.007	5.496	5.359	6.766	6.086	6.733	5.921	5.397	5.113	4.971
HCM Lane V/C Ratio	0.099	0.413	0.307	0.123	0.213	0.19	0.26	0.092	0.734	0.515
HCM Control Delay	11.9	15.9	13.7	13	13.3	13.8	13.8	11.2	28.4	17.5
HCM Lane LOS	B	C	B	B	B	B	B	B	D	C
HCM 95th-tile Q	0.3	2	1.3	0.4	0.8	0.7	1	0.3	6.2	2.9

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	5	0	5	5	90	0	235	10	140	450	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	42	45	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	5	-	-	1	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	2	2	2	2	6	2	3	13	38
Mvmt Flow	5	5	0	5	5	98	0	255	11	152	489	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	928	1064	251	815	1062	137	496	0	0	267	0	0
Stage 1	797	797	-	262	262	-	-	-	-	-	-	-
Stage 2	131	267	-	553	800	-	-	-	-	-	-	-
Follow-up Headway	3.62	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.23	-	-
Pot Capacity-1 Maneuver	243	264	765	215	165	870	1064	-	-	1287	-	-
Stage 1	371	453	-	670	642	-	-	-	-	-	-	-
Stage 2	849	718	-	416	317	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	190	232	763	191	145	867	1061	-	-	1284	-	-
Mov Capacity-2 Maneuver	190	232	-	191	145	-	-	-	-	-	-	-
Stage 1	371	399	-	669	641	-	-	-	-	-	-	-
Stage 2	745	717	-	361	279	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.2	11.9	0	1.9
HCM LOS	C	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1061	-	-	209	0	191	658	1284	-	-
HCM Lane V/C Ratio	-	-	-	0.052	+	0.019	0.16	0.119	-	-
HCM Control Delay (s)	0	-	-	23.2	0	24.2	11.5	8.18	-	-
HCM Lane LOS	A			C	A	C	B	A		
HCM 95th %tile Q(veh)	0	-	-	0.164	+	0.058	0.565	0.402	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	47

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	435	85	110	545	5	105	5	160	5	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Yield	Yield	Yield
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	473	92	120	592	5	114	5	174	5	5	11

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	598	0	0	565	0	0	1353	1356	519
Stage 1	-	-	-	-	-	-	519	519	-
Stage 2	-	-	-	-	-	-	834	837	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Capacity-1 Maneuver	979	-	-	1007	-	-	127	149	557
Stage 1	-	-	-	-	-	-	540	533	-
Stage 2	-	-	-	-	-	-	362	382	-
Time blocked-Platoon, %		-	-		-	-			
Mov Capacity-1 Maneuver	979	-	-	1007	-	-	# 110	122	557
Mov Capacity-2 Maneuver	-	-	-	-	-	-	# 110	122	-
Stage 1	-	-	-	-	-	-	540	533	-
Stage 2	-	-	-	-	-	-	297	314	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	248.6
HCM LOS			F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	210	979	-	-	1007	-	-
HCM Lane V/C Ratio	1.398	-	-	-	0.119	-	-
HCM Control Delay (s)	248.6	0	-	-	9.056	0	-
HCM Lane LOS	F	A			A	A	
HCM 95th %tile Q(veh)	16.934	0	-	-	0.403	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	80	5	5	120	230	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	5	5	130	250	114

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	448	307	364	0	-	0
Stage 1	307	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	568	733	1195	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	886	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	565	733	1195	-	-	-
Mov Capacity-2 Maneuver	565	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	882	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0.3	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1195	-	573	-	-
HCM Lane V/C Ratio	0.005	-	0.161	-	-
HCM Control Delay (s)	8.026	0	12.5	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.014	-	0.571	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	5	50	5	5	25	15	325	10	15	345	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	5	54	5	5	27	16	353	11	16	375	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	835	824	394	848	837	359	413	0	0	364	0	0
Stage 1	427	427	-	391	391	-	-	-	-	-	-	-
Stage 2	408	397	-	457	446	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	287	308	655	281	303	685	1146	-	-	1195	-	-
Stage 1	606	585	-	633	607	-	-	-	-	-	-	-
Stage 2	620	603	-	583	574	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	265	297	655	247	292	685	1146	-	-	1195	-	-
Mov Capacity-2 Maneuver	265	297	-	247	292	-	-	-	-	-	-	-
Stage 1	595	575	-	622	596	-	-	-	-	-	-	-
Stage 2	579	592	-	521	564	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	13.3	0.4	0.3
HCM LOS	B	B		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1146	-	-	467	474	1195	-	-
HCM Lane V/C Ratio	0.014	-	-	0.163	0.08	0.014	-	-
HCM Control Delay (s)	8.187	0	-	14.2	13.3	8.054	0	-
HCM Lane LOS	A	A		B	B	A	A	
HCM 95th %tile Q(veh)	0.043	-	-	0.577	0.261	0.041	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	30	20	0	110	145	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	22	0	120	158	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	278	158	158	0	-	0
Stage 1	158	-	-	-	-	-
Stage 2	120	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	712	887	1422	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	712	887	1422	-	-	-
Mov Capacity-2 Maneuver	712	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	905	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1422	-	773	-	-
HCM Lane V/C Ratio	-	-	0.07	-	-
HCM Control Delay (s)	0	-	10	-	-
HCM Lane LOS	A		B		
HCM 95th %tile Q(veh)	0	-	0.226	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

APPENDIX J

SIGNALIZED/UNSIGNALIZED INTERSECTION CAPACITY ANALYSES MITIGATION MEASURES - 2030

AM PEAK HOUR
MID-DAY PEAK HOUR
PM PEAK HOUR

AM PEAK HOUR

HCM 2010 Signalized Intersection Summary
6: McCLELLAN AVE & WRIGHT ST

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	425	65	95	195	0	20	5	90	0	0	5
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	180.5	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	54	860	131	419	955	0	491	22	423	0	0	397
Arrive On Green	0.56	0.56	0.56	1.00	1.00	0.00	0.28	0.28	0.28	0.00	0.00	0.28
Sat Flow, veh/h	4	1525	232	849	1693	0	1405	77	1518	0	0	1425
Grp Volume(v), veh/h	538	0	0	103	212	0	22	0	103	0	0	5
Grp Sat Flow(s),veh/h/ln	1761	0	0	849	1693	0	1405	0	1595	0	0	1425
Q Serve(g_s), s	0.0	0.0	0.0	3.7	0.0	0.0	0.8	0.0	3.5	0.0	0.0	0.2
Cycle Q Clear(g_c), s	13.4	0.0	0.0	17.1	0.0	0.0	1.0	0.0	3.5	0.0	0.0	0.2
Prop In Lane	0.01		0.13	1.00		0.00	1.00		0.95	0.00		1.00
Lane Grp Cap(c), veh/h	1046	0	0	419	955	0	491	0	444	0	0	397
V/C Ratio(X)	0.51	0.00	0.00	0.25	0.22	0.00	0.04	0.00	0.23	0.00	0.00	0.01
Avail Cap(c_a), veh/h	1046	0	0	419	955	0	491	0	444	0	0	397
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.99	0.99	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	9.6	0.0	0.0	2.9	0.0	0.0	18.6	0.0	19.5	0.0	0.0	18.3
Incr Delay (d2), s/veh	1.8	0.0	0.0	1.4	0.5	0.0	0.2	0.0	1.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	5.2	0.0	0.0	0.4	0.1	0.0	0.3	0.0	1.4	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	11.4	0.0	0.0	4.3	0.5	0.0	18.8	0.0	20.7	0.0	0.0	18.3
Lane Grp LOS	B			A	A		B		C			B
Approach Vol, veh/h		538			315			125			5	
Approach Delay, s/veh		11.4			1.8			20.4			18.3	
Approach LOS		B			A			C			B	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	45.0	45.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	39.5	39.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	15.4	19.1	5.5	2.2
Green Ext Time (p_c), s	3.6	3.5	0.5	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	165	70	50	55	10	25	235	260	20	100	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	194.7	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	427	243	103	221	306	56	752	1045	483	514	807	37
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1262	826	351	1116	1040	191	1280	1947	899	864	1502	69
Grp Volume(v), veh/h	39	0	255	54	0	71	27	255	283	22	0	114
Grp Sat Flow(s),veh/h/ln	1262	0	1176	1116	0	1231	1280	1947	899	864	0	1571
Q Serve(g_s), s	1.6	0.0	12.7	3.0	0.0	2.8	0.7	4.5	13.8	0.9	0.0	2.4
Cycle Q Clear(g_c), s	4.4	0.0	12.7	15.7	0.0	2.8	3.1	4.5	13.8	5.4	0.0	2.4
Prop In Lane	1.00		0.30	1.00		0.15	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	427	0	346	221	0	362	752	1045	483	514	0	844
V/C Ratio(X)	0.09	0.00	0.74	0.24	0.00	0.20	0.04	0.24	0.59	0.04	0.00	0.14
Avail Cap(c_a), veh/h	427	0	346	221	0	362	752	1045	483	514	0	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	20.7	27.8	0.0	17.2	8.3	8.0	10.2	9.5	0.0	7.5
Incr Delay (d2), s/veh	0.4	0.0	13.2	2.6	0.0	1.2	0.1	0.6	5.1	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	4.7	1.0	0.0	0.9	0.2	1.9	3.2	0.2	0.0	0.8
Lane Grp Delay (d), s/veh	19.3	0.0	33.9	30.4	0.0	18.4	8.4	8.6	15.3	9.6	0.0	7.8
Lane Grp LOS	B		C	C		B	A	A	B	A		A
Approach Vol, veh/h		294			125			565			136	
Approach Delay, s/veh		31.9			23.6			11.9			8.1	
Approach LOS		C			C			B			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		24.6			24.6			40.4			40.4	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		19.1			19.1			34.9			34.9	
Max Q Clear Time (g_c+I1), s		14.7			17.7			15.8			7.4	
Green Ext Time (p_c), s		0.7			0.3			2.8			3.0	

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	50	130	120	55	100	105
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	0.61	0.60	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	171.2	197.3	194.8	179.0	180.8
Lanes	1	1	1	0	1	1
Cap, veh/h	438	357	520	240	559	738
Arrive On Green	0.41	0.41	0.82	0.82	0.41	0.41
Sat Flow, veh/h	1073	873	1273	588	1141	1808
Grp Volume(v), veh/h	54	141	0	190	109	114
Grp Sat Flow(s),veh/h/ln	1073	873	0	1861	1141	1808
Q Serve(g_s), s	1.9	6.8	0.0	1.4	3.9	2.4
Cycle Q Clear(g_c), s	1.9	6.8	0.0	1.4	5.3	2.4
Prop In Lane	1.00	1.00		0.32	1.00	
Lane Grp Cap(c), veh/h	438	357	0	760	559	738
V/C Ratio(X)	0.12	0.40	0.00	0.25	0.19	0.15
Avail Cap(c_a), veh/h	438	357	0	760	559	738
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	12.5	0.0	3.4	12.6	11.2
Incr Delay (d2), s/veh	0.6	3.3	0.0	0.8	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.7	0.0	0.6	1.1	1.0
Lane Grp Delay (d), s/veh	11.6	15.8	0.0	4.2	13.3	11.7
Lane Grp LOS	B	B		A	B	B
Approach Vol, veh/h	195		190			223
Approach Delay, s/veh	14.6		4.2			12.5
Approach LOS	B		A			B

Timer		
Assigned Phs	2	6
Phs Duration (G+Y+Rc), s	30.0	30.0
Change Period (Y+Rc), s	5.5	5.5
Max Green Setting (Gmax), s	24.5	24.5
Max Q Clear Time (g_c+I1), s	3.4	7.3
Green Ext Time (p_c), s	1.6	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	25	185	35	25	70	125	120	385	60	40	575	105
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	186.0	191.0	190.0	190.0	190.0	193.7	186.3	186.3	191.8	184.4	184.4
Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Cap, veh/h	265	288	54	191	360	306	351	1666	708	160	1270	540
Arrive On Green	0.21	0.19	0.19	0.21	0.19	0.19	0.19	0.45	0.45	0.09	0.34	0.34
Sat Flow, veh/h	1080	1522	288	1159	1900	1615	1845	3725	1583	1827	3688	1568
Grp Volume(v), veh/h	27	0	239	38	108	192	190	611	95	49	710	130
Grp Sat Flow(s),veh/h/ln	1080	0	1810	1159	1900	1615	1845	1863	1583	1827	1844	1568
Q Serve(g_s), s	1.7	0.0	9.6	2.4	3.8	8.5	7.2	8.4	2.7	2.0	12.2	4.6
Cycle Q Clear(g_c), s	5.5	0.0	9.6	12.0	3.8	8.5	7.2	8.4	2.7	2.0	12.2	4.6
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	0	342	191	360	306	351	1666	708	160	1270	540
V/C Ratio(X)	0.10	0.00	0.70	0.20	0.30	0.63	0.54	0.37	0.13	0.31	0.56	0.24
Avail Cap(c_a), veh/h	295	0	393	224	413	351	351	1666	708	160	1270	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	29.5	33.7	27.1	29.0	28.4	14.2	12.7	33.3	20.7	18.2
Incr Delay (d2), s/veh	0.2	0.0	4.5	0.5	0.5	2.8	5.9	0.6	0.4	4.9	1.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	4.7	0.7	1.8	3.6	3.7	3.5	1.0	1.1	5.2	1.7
Lane Grp Delay (d), s/veh	28.4	0.0	34.0	34.2	27.6	31.9	34.3	14.9	13.0	38.2	22.5	19.3
Lane Grp LOS	C		C	C	C	C	C	B	B	D	C	B
Approach Vol, veh/h		266			338			896			889	
Approach Delay, s/veh		33.4			30.8			18.8			22.9	
Approach LOS		C			C			B			C	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		23.8			23.8		21.0	41.0		13.0	33.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		16.9			16.9		14.8	34.8		6.8	26.8	
Max Q Clear Time (g_c+I1), s		11.6			14.0		9.2	10.4		4.0	14.2	
Green Ext Time (p_c), s		1.1			0.7		0.2	6.2		0.0	4.9	

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	20	40	5	10	10	55	465	15	15	260	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.50
Adj Sat Flow veh/h/ln	163.8	193.7	190.0	166.7	179.6	190.0	186.3	190.1	190.0	188.1	186.3	179.3
Lanes	1	1	0	1	1	0	1	1	0	1	1	1
Cap, veh/h	421	159	310	392	222	222	619	1047	33	464	1065	430
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1215	584	1142	1190	818	818	1043	1833	58	885	1863	753
Grp Volume(v), veh/h	54	0	65	5	0	22	60	0	521	16	283	49
Grp Sat Flow(s),veh/h/ln	1215	0	1726	1190	0	1636	1043	0	1891	885	1863	753
Q Serve(g_s), s	2.4	0.0	2.0	0.2	0.0	0.7	2.2	0.0	11.4	0.8	5.4	2.1
Cycle Q Clear(g_c), s	3.1	0.0	2.0	2.2	0.0	0.7	7.5	0.0	11.4	12.2	5.4	2.1
Prop In Lane	1.00		0.66	1.00		0.50	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	421	0	469	392	0	444	619	0	1080	464	1065	430
V/C Ratio(X)	0.13	0.00	0.14	0.01	0.00	0.05	0.10	0.00	0.48	0.03	0.27	0.11
Avail Cap(c_a), veh/h	421	0	469	392	0	444	619	0	1080	464	1065	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	19.3	20.1	0.0	18.8	9.5	0.0	8.9	12.5	7.6	6.9
Incr Delay (d2), s/veh	0.6	0.0	0.6	0.1	0.0	0.2	0.3	0.0	1.5	0.1	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	0.0	0.9	0.1	0.0	0.3	0.5	0.0	4.5	0.2	2.1	0.4
Lane Grp Delay (d), s/veh	20.6	0.0	19.9	20.2	0.0	19.0	9.8	0.0	10.4	12.6	8.2	7.4
Lane Grp LOS	C		B	C		B	A		B	B	A	A
Approach Vol, veh/h		119			27			581			348	
Approach Delay, s/veh		20.2			19.3			10.4			8.3	
Approach LOS		C			B			B			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		24.5			24.5			45.5			45.5	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		19.0			19.0			40.0			40.0	
Max Q Clear Time (g_c+I1), s		5.1			4.2			13.4			14.2	
Green Ext Time (p_c), s		0.4			0.4			4.1			4.0	

Intersection Summary												
HCM 2010 Ctrl Delay			11.0									
HCM 2010 LOS			B									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	55	0	25	5	0	5	30	470	0	5	175	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	190.0	193.7	193.7	197.6	193.7	186.3	197.6	193.7	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	506	0	262	494	0	262	694	1504	0	571	1035	399
Arrive On Green	0.16	0.00	0.16	0.16	0.00	0.16	0.40	0.40	0.00	0.40	0.40	0.40
Sat Flow, veh/h	1405	0	1647	1433	0	1647	1153	3725	0	921	2563	988
Grp Volume(v), veh/h	60	0	27	5	0	5	33	511	0	5	136	130
Grp Sat Flow(s),veh/h/ln	1405	0	1647	1433	0	1647	1153	1863	0	921	1863	1688
Q Serve(g_s), s	0.9	0.0	0.4	0.1	0.0	0.1	0.5	2.4	0.0	0.1	1.2	1.2
Cycle Q Clear(g_c), s	1.0	0.0	0.4	0.4	0.0	0.1	1.7	2.4	0.0	2.5	1.2	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.59
Lane Grp Cap(c), veh/h	506	0	262	494	0	262	694	1504	0	571	752	682
V/C Ratio(X)	0.12	0.00	0.10	0.01	0.00	0.02	0.05	0.34	0.00	0.01	0.18	0.19
Avail Cap(c_a), veh/h	1819	0	1800	1833	0	1800	2131	6147	0	1718	3073	2786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	0.0	9.0	9.2	0.0	8.9	5.4	5.2	0.0	6.0	4.8	4.8
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.3	0.2
Lane Grp Delay (d), s/veh	9.5	0.0	9.2	9.2	0.0	9.0	5.4	5.3	0.0	6.0	4.9	5.0
Lane Grp LOS	A		A	A		A	A	A		A	A	A
Approach Vol, veh/h		87			10			544			271	
Approach Delay, s/veh		9.4			9.1			5.3			5.0	
Approach LOS		A			A			A			A	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		9.5			9.5			15.7			15.7	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		27.5			27.5			41.5			41.5	
Max Q Clear Time (g_c+I1), s		3.0			2.4			4.4			4.5	
Green Ext Time (p_c), s		0.3			0.3			5.7			5.7	

Intersection Summary												
HCM 2010 Ctrl Delay			5.6									
HCM 2010 LOS			A									

Notes

HCM 2010 Signalized Intersection Summary
69: Lincoln Ave & WRIGHT ST

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	315	105	90	230	5	25	0	70	5	5	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	862	932	311	584	1268	25	241	0	122	176	144	0
Arrive On Green	0.23	0.23	0.23	0.70	0.70	0.70	0.08	0.00	0.08	0.08	0.08	0.00
Sat Flow, veh/h	1120	1338	446	931	1820	36	1405	0	1583	1318	1863	0
Grp Volume(v), veh/h	5	0	456	98	0	255	27	0	76	5	5	0
Grp Sat Flow(s),veh/h/ln	1120	0	1784	931	0	1856	1405	0	1583	1318	1863	0
Q Serve(g_s), s	0.2	0.0	11.4	3.2	0.0	2.6	1.0	0.0	2.5	0.2	0.1	0.0
Cycle Q Clear(g_c), s	2.8	0.0	11.4	14.7	0.0	2.6	1.1	0.0	2.5	2.7	0.1	0.0
Prop In Lane	1.00		0.25	1.00		0.02	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	862	0	1243	584	0	1293	241	0	122	176	144	0
V/C Ratio(X)	0.01	0.00	0.37	0.17	0.00	0.20	0.11	0.00	0.62	0.03	0.03	0.00
Avail Cap(c_a), veh/h	862	0	1243	584	0	1293	688	0	626	595	737	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.00	0.83	0.96	0.00	0.96	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.3	0.0	10.6	8.0	0.0	2.8	23.2	0.0	23.7	25.0	22.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.6	0.0	0.3	0.2	0.0	5.1	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	5.8	0.7	0.0	0.8	0.3	0.0	1.1	0.1	0.1	0.0
Lane Grp Delay (d), s/veh	8.3	0.0	11.3	8.6	0.0	3.2	23.4	0.0	28.8	25.1	22.8	0.0
Lane Grp LOS	A		B	A		A	C		C	C	C	
Approach Vol, veh/h		461			353			103			10	
Approach Delay, s/veh		11.3			4.7			27.4			23.9	
Approach LOS		B			A			C			C	

Timer				
Assigned Phs	2	6	8	4
Phs Duration (G+Y+Rc), s	43.0	43.0	10.1	10.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	37.0	21.0	21.0
Max Q Clear Time (g_c+I1), s	13.4	16.7	4.5	4.7
Green Ext Time (p_c), s	4.8	4.6	0.4	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Notes

MID-DAY PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	390	60	100	430	0	40	5	110	0	0	5
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	180.5	199.6	182.5	169.3	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	54	838	127	435	931	0	511	19	448	0	0	417
Arrive On Green	0.55	0.55	0.55	1.00	1.00	0.00	0.29	0.29	0.29	0.00	0.00	0.29
Sat Flow, veh/h	4	1524	232	885	1693	0	1405	64	1529	0	0	1425
Grp Volume(v), veh/h	494	0	0	109	467	0	43	0	125	0	0	5
Grp Sat Flow(s),veh/h/ln	1760	0	0	885	1693	0	1405	0	1593	0	0	1425
Q Serve(g_s), s	0.0	0.0	0.0	3.5	0.0	0.0	1.6	0.0	4.2	0.0	0.0	0.2
Cycle Q Clear(g_c), s	12.3	0.0	0.0	15.8	0.0	0.0	1.7	0.0	4.2	0.0	0.0	0.2
Prop In Lane	0.01		0.13	1.00		0.00	1.00		0.96	0.00		1.00
Lane Grp Cap(c), veh/h	1020	0	0	435	931	0	511	0	466	0	0	417
V/C Ratio(X)	0.48	0.00	0.00	0.25	0.50	0.00	0.08	0.00	0.27	0.00	0.00	0.01
Avail Cap(c_a), veh/h	1020	0	0	435	931	0	511	0	466	0	0	417
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.95	0.95	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	9.8	0.0	0.0	2.5	0.0	0.0	18.2	0.0	19.0	0.0	0.0	17.6
Incr Delay (d2), s/veh	1.6	0.0	0.0	1.3	1.8	0.0	0.3	0.0	1.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.7	0.0	0.0	0.3	0.5	0.0	0.5	0.0	1.7	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	11.5	0.0	0.0	3.8	1.8	0.0	18.5	0.0	20.4	0.0	0.0	17.6
Lane Grp LOS	B			A	A		B		C			B
Approach Vol, veh/h		494			576			168			5	
Approach Delay, s/veh		11.5			2.2			19.9			17.6	
Approach LOS		B			A			B			B	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	44.0	44.0	26.0	26.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	38.5	38.5	20.5	20.5
Max Q Clear Time (g_c+I1), s	14.3	17.8	6.2	2.2
Green Ext Time (p_c), s	4.7	4.5	0.7	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	8.3
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	115	70	140	125	15	50	180	160	20	170	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	194.7	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	442	256	156	388	394	46	560	867	399	517	640	55
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1176	722	439	1172	1112	131	1180	1947	896	1006	1437	124
Grp Volume(v), veh/h	22	0	201	152	0	152	54	196	174	22	0	201
Grp Sat Flow(s),veh/h/ln	1176	0	1161	1172	0	1243	1180	1947	896	1006	0	1561
Q Serve(g_s), s	0.8	0.0	7.4	6.4	0.0	4.9	1.7	3.4	7.3	0.8	0.0	4.5
Cycle Q Clear(g_c), s	5.7	0.0	7.4	13.8	0.0	4.9	6.2	3.4	7.3	4.2	0.0	4.5
Prop In Lane	1.00		0.38	1.00		0.11	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	442	0	412	388	0	441	560	867	399	517	0	695
V/C Ratio(X)	0.05	0.00	0.49	0.39	0.00	0.34	0.10	0.23	0.44	0.04	0.00	0.29
Avail Cap(c_a), veh/h	442	0	412	388	0	441	560	867	399	517	0	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	13.9	19.3	0.0	13.1	11.7	9.4	10.5	10.7	0.0	9.7
Incr Delay (d2), s/veh	0.2	0.0	4.1	3.0	0.0	2.1	0.3	0.6	3.4	0.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.2	0.0	2.4	2.0	0.0	1.7	0.5	1.5	1.7	0.2	0.0	1.6
Lane Grp Delay (d), s/veh	15.4	0.0	18.0	22.2	0.0	15.2	12.0	10.0	13.9	10.8	0.0	10.8
Lane Grp LOS	B		B	C		B	B	B	B	B		B
Approach Vol, veh/h		223			304			424			223	
Approach Delay, s/veh		17.7			18.7			11.9			10.8	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	25.0	25.0	30.0	30.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.5	19.5	24.5	24.5
Max Q Clear Time (g_c+I1), s	9.4	15.8	9.3	6.5
Green Ext Time (p_c), s	1.7	0.8	2.3	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	70	250	220	85	230	220
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	0.61	0.60	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	171.2	197.5	194.8	179.0	180.8
Lanes	1	1	1	0	1	1
Cap, veh/h	385	313	620	239	420	829
Arrive On Green	0.36	0.36	0.15	0.15	0.46	0.46
Sat Flow, veh/h	1073	873	1353	521	1004	1808
Grp Volume(v), veh/h	76	272	0	331	250	239
Grp Sat Flow(s),veh/h/ln	1073	873	0	1874	1004	1808
Q Serve(g_s), s	2.9	17.4	0.0	9.5	13.9	5.0
Cycle Q Clear(g_c), s	2.9	17.4	0.0	9.5	23.5	5.0
Prop In Lane	1.00	1.00		0.28	1.00	
Lane Grp Cap(c), veh/h	385	313	0	859	420	829
V/C Ratio(X)	0.20	0.87	0.00	0.39	0.59	0.29
Avail Cap(c_a), veh/h	385	313	0	859	420	829
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	17.9	0.0	17.8	19.6	10.1
Incr Delay (d2), s/veh	1.1	26.4	0.0	1.3	6.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	5.8	0.0	5.1	4.0	2.1
Lane Grp Delay (d), s/veh	14.4	44.3	0.0	19.2	25.7	11.0
Lane Grp LOS	B	D		B	C	B
Approach Vol, veh/h	348		331			489
Approach Delay, s/veh	37.8		19.2			18.5
Approach LOS	D		B			B

Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			33.0			33.0
Change Period (Y+Rc), s			5.5			5.5
Max Green Setting (Gmax), s			27.5			27.5
Max Q Clear Time (g_c+I1), s			11.5			25.5
Green Ext Time (p_c), s			3.3			0.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	30	100	55	40	120	180	135	590	40	45	535	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	184.6	191.0	190.0	190.0	161.5	193.7	146.2	142.9	191.8	162.2	184.4
Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Cap, veh/h	242	197	108	231	335	242	188	1426	592	79	1391	672
Arrive On Green	0.20	0.18	0.18	0.20	0.18	0.18	0.10	0.49	0.49	0.04	0.43	0.43
Sat Flow, veh/h	1055	1116	614	1236	1900	1373	1845	2923	1214	1827	3243	1568
Grp Volume(v), veh/h	33	0	169	43	130	196	147	641	43	49	582	49
Grp Sat Flow(s),veh/h/ln	1055	0	1731	1236	1900	1373	1845	1462	1214	1827	1622	1568
Q Serve(g_s), s	2.0	0.0	6.5	2.4	4.4	10.1	5.7	10.6	1.4	1.9	9.2	1.4
Cycle Q Clear(g_c), s	6.5	0.0	6.5	8.9	4.4	10.1	5.7	10.6	1.4	1.9	9.2	1.4
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	0	305	231	335	242	188	1426	592	79	1391	672
V/C Ratio(X)	0.14	0.00	0.55	0.19	0.39	0.81	0.78	0.45	0.07	0.62	0.42	0.07
Avail Cap(c_a), veh/h	284	0	375	281	412	297	347	1426	592	169	1391	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	27.6	30.3	26.7	29.1	32.1	12.3	10.0	34.5	14.6	12.4
Incr Delay (d2), s/veh	0.3	0.0	1.6	0.4	0.7	12.9	6.9	1.0	0.2	7.8	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.0	2.9	0.8	2.1	4.2	2.8	3.2	0.4	1.0	3.2	0.5
Lane Grp Delay (d), s/veh	28.5	0.0	29.2	30.7	27.5	41.9	39.0	13.4	10.2	42.4	15.5	12.6
Lane Grp LOS	C		C	C	C	D	D	B	B	D	B	B
Approach Vol, veh/h		202			369			831			680	
Approach Delay, s/veh		29.1			35.5			17.7			17.2	
Approach LOS		C			D			B			B	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		22.0			22.0		13.7	42.0		9.4	37.7	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		15.9			15.9		13.8	35.8		6.8	28.8	
Max Q Clear Time (g_c+I1), s		8.5			12.1		7.7	12.6		3.9	11.2	
Green Ext Time (p_c), s		1.4			0.9		0.2	5.2		0.0	4.9	

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
62: RIDGE ST & McClellan Ave

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	25	110	10	30	25	90	385	30	35	375	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.50
Adj Sat Flow veh/h/ln	163.8	193.7	190.0	166.7	178.3	190.0	186.3	190.3	190.0	188.1	186.3	179.3
Lanes	1	1	0	1	1	0	1	1	0	1	1	1
Cap, veh/h	389	84	373	326	244	200	516	995	79	515	1065	430
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1174	309	1375	1105	901	737	916	1741	137	944	1863	753
Grp Volume(v), veh/h	82	0	147	11	0	60	98	0	451	38	408	65
Grp Sat Flow(s),veh/h/ln	1174	0	1685	1105	0	1637	916	0	1878	944	1863	753
Q Serve(g_s), s	4.0	0.0	4.9	0.6	0.0	1.9	4.6	0.0	9.5	1.7	8.4	2.8
Cycle Q Clear(g_c), s	5.9	0.0	4.9	5.4	0.0	1.9	13.0	0.0	9.5	11.1	8.4	2.8
Prop In Lane	1.00		0.82	1.00		0.45	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	389	0	457	326	0	444	516	0	1073	515	1065	430
V/C Ratio(X)	0.21	0.00	0.32	0.03	0.00	0.13	0.19	0.00	0.42	0.07	0.38	0.15
Avail Cap(c_a), veh/h	389	0	457	326	0	444	516	0	1073	515	1065	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	20.4	22.5	0.0	19.3	11.8	0.0	8.5	11.6	8.2	7.0
Incr Delay (d2), s/veh	1.2	0.0	1.9	0.2	0.0	0.6	0.8	0.0	1.2	0.3	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	2.2	0.2	0.0	0.8	1.0	0.0	3.7	0.4	3.3	0.5
Lane Grp Delay (d), s/veh	22.8	0.0	22.2	22.7	0.0	19.9	12.6	0.0	9.7	11.9	9.3	7.8
Lane Grp LOS	C		C	C		B	B		A	B	A	A
Approach Vol, veh/h		229			71			549			511	
Approach Delay, s/veh		22.4			20.4			10.2			9.3	
Approach LOS		C			C			B			A	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		24.5			24.5			45.5			45.5	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		19.0			19.0			40.0			40.0	
Max Q Clear Time (g_c+I1), s		7.9			7.4			15.0			13.1	
Green Ext Time (p_c), s		0.9			1.0			4.6			4.7	

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary
66: McCLELLEN AVE/McCLELLAN AVE & Odovero Dr

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	170	0	60	0	5	10	35	305	5	10	285	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	190.0	193.7	193.7	197.6	193.7	186.3	197.6	193.7	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	718	0	751	90	246	542	376	1487	22	465	898	523
Arrive On Green	0.46	0.00	0.46	0.00	0.46	0.46	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1392	0	1647	1384	540	1188	935	3661	55	1081	2211	1287
Grp Volume(v), veh/h	185	0	65	0	0	16	38	169	168	11	260	235
Grp Sat Flow(s),veh/h/ln	1392	0	1647	1384	0	1728	935	1863	1853	1081	1863	1636
Q Serve(g_s), s	6.7	0.0	1.8	0.0	0.0	0.4	2.4	4.7	4.7	0.5	7.7	8.0
Cycle Q Clear(g_c), s	7.1	0.0	1.8	0.0	0.0	0.4	10.3	4.7	4.7	5.3	7.7	8.0
Prop In Lane	1.00		1.00	1.00		0.69	1.00		0.03	1.00		0.79
Lane Grp Cap(c), veh/h	718	0	751	90	0	788	376	757	753	465	757	664
V/C Ratio(X)	0.26	0.00	0.09	0.00	0.00	0.02	0.10	0.22	0.22	0.02	0.34	0.35
Avail Cap(c_a), veh/h	718	0	751	90	0	788	376	757	753	465	757	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	12.3	0.0	0.0	11.9	20.0	15.5	15.5	17.2	16.4	16.5
Incr Delay (d2), s/veh	0.9	0.0	0.2	0.0	0.0	0.0	0.5	0.7	0.7	0.1	1.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.2	0.0	0.7	0.0	0.0	0.2	0.6	2.1	2.1	0.1	3.5	3.2
Lane Grp Delay (d), s/veh	14.8	0.0	12.5	0.0	0.0	12.0	20.6	16.2	16.2	17.3	17.6	17.9
Lane Grp LOS	B		B			B	C	B	B	B	B	B
Approach Vol, veh/h		250			16			375			506	
Approach Delay, s/veh		14.2			12.0			16.6			17.8	
Approach LOS		B			B			B			B	

Timer								
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		42.0			42.0			38.0			38.0	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		36.5			36.5			32.5			32.5	
Max Q Clear Time (g_c+I1), s		9.1			2.4			12.3			10.0	
Green Ext Time (p_c), s		1.0			1.0			5.0			5.2	

Intersection Summary			
HCM 2010 Ctrl Delay			16.5
HCM 2010 LOS			B

Notes

HCM 2010 Signalized Intersection Summary
69: Lincoln Ave & WRIGHT ST

4/24/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	380	80	120	375	5	75	5	150	5	5	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	644	955	201	482	1174	14	336	7	236	189	285	0
Arrive On Green	0.21	0.21	0.21	0.64	0.64	0.64	0.15	0.15	0.15	0.15	0.15	0.00
Sat Flow, veh/h	969	1493	314	894	1836	23	1405	47	1543	1212	1863	0
Grp Volume(v), veh/h	5	0	500	130	0	413	82	0	168	5	5	0
Grp Sat Flow(s),veh/h/ln	969	0	1807	894	0	1859	1405	0	1590	1212	1863	0
Q Serve(g_s), s	0.2	0.0	13.9	5.9	0.0	6.0	3.0	0.0	5.8	0.2	0.1	0.0
Cycle Q Clear(g_c), s	6.2	0.0	13.9	19.8	0.0	6.0	3.2	0.0	5.8	6.0	0.1	0.0
Prop In Lane	1.00		0.17	1.00		0.01	1.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	644	0	1156	482	0	1189	336	0	243	189	285	0
V/C Ratio(X)	0.01	0.00	0.43	0.27	0.00	0.35	0.24	0.00	0.69	0.03	0.02	0.00
Avail Cap(c_a), veh/h	644	0	1156	482	0	1189	631	0	577	443	676	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.00	0.85	0.91	0.00	0.91	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	13.7	12.2	0.0	4.8	22.2	0.0	23.2	26.0	20.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.0	1.2	0.0	0.7	0.4	0.0	3.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	6.9	1.3	0.0	2.0	1.0	0.0	2.3	0.1	0.1	0.0
Lane Grp Delay (d), s/veh	13.1	0.0	14.7	13.5	0.0	5.6	22.5	0.0	26.7	26.1	20.8	0.0
Lane Grp LOS	B		B	B		A	C		C	C	C	
Approach Vol, veh/h		505			543			250			10	
Approach Delay, s/veh		14.7			7.5			25.3			23.5	
Approach LOS		B			A			C			C	

Timer				
Assigned Phs	2	6	8	4
Phs Duration (G+Y+Rc), s	43.0	43.0	14.9	14.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	37.0	21.0	21.0
Max Q Clear Time (g_c+I1), s	15.9	21.8	7.8	8.0
Green Ext Time (p_c), s	6.3	5.5	1.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Notes

PM PEAK HOUR

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	490	35	140	615	5	115	5	135	0	5	5
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Adj Sat Flow veh/h/ln	191.9	179.9	199.6	182.5	169.4	186.2	186.3	186.3	197.6	190.0	186.3	190.0
Lanes	0	1	0	1	1	0	1	1	0	0	1	0
Cap, veh/h	0	936	67	397	947	7	486	15	429	0	215	215
Arrive On Green	0.00	0.56	0.56	1.00	1.00	1.00	0.28	0.28	0.28	0.00	0.28	0.28
Sat Flow, veh/h	0	1659	118	820	1679	13	1399	52	1539	0	770	770
Grp Volume(v), veh/h	0	0	571	152	0	673	125	0	152	0	0	10
Grp Sat Flow(s),veh/h/ln	0	0	1778	820	0	1691	1399	0	1591	0	0	1541
Q Serve(g_s), s	0.0	0.0	14.4	7.1	0.0	0.0	5.0	0.0	5.3	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.0	0.0	14.4	21.5	0.0	0.0	5.3	0.0	5.3	0.0	0.0	0.3
Prop In Lane	0.00		0.07	1.00		0.01	1.00		0.97	0.00		0.50
Lane Grp Cap(c), veh/h	0	0	1003	397	0	954	486	0	443	0	0	429
V/C Ratio(X)	0.00	0.00	0.57	0.38	0.00	0.71	0.26	0.00	0.34	0.00	0.00	0.02
Avail Cap(c_a), veh/h	0	0	1003	397	0	954	486	0	443	0	0	429
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.86	0.00	0.86	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	9.8	3.9	0.0	0.0	20.3	0.0	20.1	0.0	0.0	18.3
Incr Delay (d2), s/veh	0.0	0.0	2.3	2.4	0.0	3.8	1.3	0.0	2.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	5.7	0.8	0.0	1.0	1.8	0.0	2.2	0.0	0.0	0.1
Lane Grp Delay (d), s/veh	0.0	0.0	12.1	6.3	0.0	3.8	21.5	0.0	22.2	0.0	0.0	18.4
Lane Grp LOS			B	A		A	C		C			B
Approach Vol, veh/h		571			825			277			10	
Approach Delay, s/veh		12.1			4.2			21.9			18.4	
Approach LOS		B			A			C			B	

Timer				
Assigned Phs	8	4	2	6
Phs Duration (G+Y+Rc), s	45.0	45.0	25.0	25.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	39.5	39.5	19.5	19.5
Max Q Clear Time (g_c+I1), s	16.4	23.5	7.3	2.3
Green Ext Time (p_c), s	6.6	5.8	1.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	115	95	205	195	45	80	165	110	20	225	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	0.69	1.00	1.00	0.68	1.00	1.00	0.54	1.00	1.00	0.85
Adj Sat Flow veh/h/ln	178.8	178.8	197.6	186.3	186.3	197.6	187.2	194.7	194.7	186.3	186.3	197.6
Lanes	1	1	0	1	1	0	1	1	1	1	1	0
Cap, veh/h	383	245	202	417	388	90	426	759	349	496	533	72
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1066	629	518	1144	994	230	1100	1947	896	1073	1366	184
Grp Volume(v), veh/h	11	0	228	223	0	261	87	179	120	22	0	278
Grp Sat Flow(s),veh/h/ln	1066	0	1146	1144	0	1224	1100	1947	896	1073	0	1550
Q Serve(g_s), s	0.4	0.0	7.6	9.2	0.0	8.3	3.2	3.1	4.7	0.7	0.0	6.7
Cycle Q Clear(g_c), s	8.7	0.0	7.6	16.8	0.0	8.3	9.9	3.1	4.7	3.8	0.0	6.7
Prop In Lane	1.00		0.45	1.00		0.19	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	383	0	447	417	0	477	426	759	349	496	0	605
V/C Ratio(X)	0.03	0.00	0.51	0.53	0.00	0.55	0.20	0.24	0.34	0.04	0.00	0.46
Avail Cap(c_a), veh/h	383	0	447	417	0	477	426	759	349	496	0	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.2	0.0	11.6	18.0	0.0	11.8	15.0	10.2	10.7	11.5	0.0	11.3
Incr Delay (d2), s/veh	0.1	0.0	4.1	4.9	0.0	4.4	1.1	0.7	2.7	0.2	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.1	0.0	2.3	3.0	0.0	2.8	0.9	1.3	1.1	0.2	0.0	2.4
Lane Grp Delay (d), s/veh	15.3	0.0	15.7	22.9	0.0	16.3	16.1	11.0	13.4	11.7	0.0	13.8
Lane Grp LOS	B		B	C		B	B	B	B	B		B
Approach Vol, veh/h		239			484			386			300	
Approach Delay, s/veh		15.7			19.3			12.9			13.7	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		25.0			25.0			25.0			25.0	
Change Period (Y+Rc), s		5.5			5.5			5.5			5.5	
Max Green Setting (Gmax), s		19.5			19.5			19.5			19.5	
Max Q Clear Time (g_c+I1), s		10.7			18.8			11.9			8.7	
Green Ext Time (p_c), s		2.2			0.3			1.8			2.2	

Intersection Summary												
HCM 2010 Ctrl Delay			15.7									
HCM 2010 LOS			B									

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	65	250	275	90	315	215
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus Adj	0.61	0.60	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	171.2	197.6	194.8	179.0	180.8
Lanes	1	1	1	0	1	1
Cap, veh/h	342	278	708	232	590	901
Arrive On Green	0.32	0.32	1.00	1.00	0.50	0.50
Sat Flow, veh/h	1073	873	1420	465	945	1808
Grp Volume(v), veh/h	71	272	0	397	342	234
Grp Sat Flow(s),veh/h/ln	1073	873	0	1886	945	1808
Q Serve(g_s), s	2.9	18.5	0.0	0.1	17.1	4.5
Cycle Q Clear(g_c), s	2.9	18.5	0.0	0.1	17.2	4.5
Prop In Lane	1.00	1.00		0.25	1.00	
Lane Grp Cap(c), veh/h	342	278	0	940	590	901
V/C Ratio(X)	0.21	0.98	0.00	0.42	0.58	0.26
Avail Cap(c_a), veh/h	342	278	0	940	590	901
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	20.2	0.0	0.1	11.9	8.7
Incr Delay (d2), s/veh	1.4	48.8	0.0	1.4	4.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	7.5	0.0	0.4	4.2	1.9
Lane Grp Delay (d), s/veh	16.3	69.0	0.0	1.4	16.0	9.4
Lane Grp LOS	B	E		A	B	A
Approach Vol, veh/h	343		397			576
Approach Delay, s/veh	58.1		1.4			13.3
Approach LOS	E		A			B

Timer						
Assigned Phs			2			6
Phs Duration (G+Y+Rc), s			35.4			35.4
Change Period (Y+Rc), s			5.5			5.5
Max Green Setting (Gmax), s			29.9			29.9
Max Q Clear Time (g_c+I1), s			2.1			19.2
Green Ext Time (p_c), s			4.7			3.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

Notes

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (veh/h)	30	120	95	85	190	225	85	760	50	80	635	50
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	187.2	184.0	191.0	190.0	190.0	161.5	193.7	146.2	142.9	191.8	162.2	184.4
Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Cap, veh/h	215	201	159	212	401	289	203	1198	497	201	1330	641
Arrive On Green	0.23	0.21	0.21	0.23	0.21	0.21	0.11	0.41	0.41	0.11	0.41	0.41
Sat Flow, veh/h	939	951	754	1164	1900	1369	1845	2923	1211	1827	3243	1564
Grp Volume(v), veh/h	33	0	233	92	207	245	92	826	54	87	690	54
Grp Sat Flow(s),veh/h/ln	939	0	1705	1164	1900	1369	1845	1462	1211	1827	1622	1564
Q Serve(g_s), s	2.5	0.0	10.0	6.1	7.7	13.8	3.7	18.6	2.2	3.6	12.8	1.7
Cycle Q Clear(g_c), s	10.2	0.0	10.0	16.1	7.7	13.8	3.7	18.6	2.2	3.6	12.8	1.7
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	215	0	360	212	401	289	203	1198	497	201	1330	641
V/C Ratio(X)	0.15	0.00	0.65	0.43	0.52	0.85	0.45	0.69	0.11	0.43	0.52	0.08
Avail Cap(c_a), veh/h	215	0	360	212	401	289	203	1198	497	201	1330	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	0.0	28.8	34.8	27.9	30.3	33.3	19.4	14.6	33.3	17.7	14.4
Incr Delay (d2), s/veh	0.3	0.0	4.0	1.4	1.1	20.3	7.1	3.3	0.4	6.7	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.6	0.0	4.7	1.9	3.8	6.3	2.0	6.4	0.6	1.9	4.7	0.6
Lane Grp Delay (d), s/veh	31.4	0.0	32.8	36.2	29.1	50.6	40.5	22.7	15.0	39.9	19.1	14.7
Lane Grp LOS	C		C	D	C	D	D	C	B	D	B	B
Approach Vol, veh/h		266			544			972			831	
Approach Delay, s/veh		32.6			40.0			23.9			21.0	
Approach LOS		C			D			C			C	

Timer												
Assigned Phs		4			8		1	6		5	2	
Phs Duration (G+Y+Rc), s		26.0			26.0		15.0	39.0		15.0	39.0	
Change Period (Y+Rc), s		9.1			9.1		6.2	6.2		6.2	6.2	
Max Green Setting (Gmax), s		16.9			16.9		8.8	32.8		8.8	32.8	
Max Q Clear Time (g_c+I1), s		12.2			18.1		5.7	20.6		5.6	14.8	
Green Ext Time (p_c), s		1.5			0.0		0.0	5.3		0.0	6.3	

Intersection Summary	
HCM 2010 Ctrl Delay	27.2
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	35	130	15	30	35	90	380	35	20	510	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.50
Adj Sat Flow veh/h/ln	163.8	193.7	190.0	166.7	180.6	190.0	186.3	190.3	190.0	188.1	186.3	179.3
Lanes	1	1	0	1	1	0	1	1	0	1	1	1
Cap, veh/h	380	98	362	302	206	237	395	981	90	514	1065	430
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1162	359	1333	1073	760	875	750	1717	158	944	1863	753
Grp Volume(v), veh/h	76	0	179	16	0	71	98	0	451	22	554	136
Grp Sat Flow(s),veh/h/ln	1162	0	1693	1073	0	1635	750	0	1875	944	1863	753
Q Serve(g_s), s	3.7	0.0	6.0	0.9	0.0	2.3	6.4	0.0	9.5	0.9	12.7	6.6
Cycle Q Clear(g_c), s	6.0	0.0	6.0	6.9	0.0	2.3	19.1	0.0	9.5	10.4	12.7	6.6
Prop In Lane	1.00		0.79	1.00		0.54	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	380	0	459	302	0	444	395	0	1071	514	1065	430
V/C Ratio(X)	0.20	0.00	0.39	0.05	0.00	0.16	0.25	0.00	0.42	0.04	0.52	0.32
Avail Cap(c_a), veh/h	380	0	459	302	0	444	395	0	1071	514	1065	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	20.8	23.6	0.0	19.4	15.0	0.0	8.5	11.4	9.1	7.8
Incr Delay (d2), s/veh	1.2	0.0	2.5	0.3	0.0	0.8	1.5	0.0	1.2	0.2	1.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	0.0	2.8	0.3	0.0	1.0	1.2	0.0	3.7	0.2	5.0	1.2
Lane Grp Delay (d), s/veh	22.9	0.0	23.3	23.9	0.0	20.2	16.5	0.0	9.7	11.6	11.0	9.8
Lane Grp LOS	C		C	C		C	B		A	B	B	A
Approach Vol, veh/h		255			87			549			712	
Approach Delay, s/veh		23.2			20.9			10.9			10.8	
Approach LOS		C			C			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	24.5	24.5	45.5	45.5
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	19.0	19.0	40.0	40.0
Max Q Clear Time (g_c+I1), s	8.0	8.9	21.1	14.7
Green Ext Time (p_c), s	1.1	1.1	5.4	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	155	0	110	0	0	5	45	340	0	5	505	235
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	193.7	190.0	193.7	193.7	197.6	193.7	186.3	197.6	193.7	186.3	197.6
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	606	0	607	90	0	607	331	1839	0	549	1191	552
Arrive On Green	0.37	0.00	0.37	0.00	0.00	0.37	0.49	0.49	0.00	0.49	0.49	0.49
Sat Flow, veh/h	1405	0	1647	1317	0	1647	701	3725	0	1048	2411	1117
Grp Volume(v), veh/h	168	0	120	0	0	5	49	370	0	5	424	380
Grp Sat Flow(s),veh/h/ln	1405	0	1647	1317	0	1647	701	1863	0	1048	1863	1666
Q Serve(g_s), s	6.9	0.0	4.0	0.0	0.0	0.2	3.9	4.5	0.0	0.2	11.9	12.0
Cycle Q Clear(g_c), s	7.0	0.0	4.0	0.0	0.0	0.2	15.9	4.5	0.0	4.7	11.9	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.67
Lane Grp Cap(c), veh/h	606	0	607	90	0	607	331	1839	0	549	920	822
V/C Ratio(X)	0.28	0.00	0.20	0.00	0.00	0.01	0.15	0.20	0.00	0.01	0.46	0.46
Avail Cap(c_a), veh/h	606	0	607	90	0	607	331	1839	0	549	920	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	17.2	0.0	0.0	16.0	18.5	11.4	0.0	12.7	13.3	13.3
Incr Delay (d2), s/veh	1.1	0.0	0.7	0.0	0.0	0.0	0.9	0.2	0.0	0.0	1.7	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.4	0.0	1.6	0.0	0.0	0.1	0.7	1.9	0.0	0.1	5.3	4.8
Lane Grp Delay (d), s/veh	19.4	0.0	17.9	0.0	0.0	16.0	19.4	11.6	0.0	12.7	14.9	15.2
Lane Grp LOS	B		B			B	B	B		B	B	B
Approach Vol, veh/h		288			5			419			809	
Approach Delay, s/veh		18.8			16.0			12.5			15.0	
Approach LOS		B			B			B			B	

Timer				
Assigned Phs	4	8	2	6
Phs Duration (G+Y+Rc), s	35.0	35.0	45.0	45.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	29.5	29.5	39.5	39.5
Max Q Clear Time (g_c+I1), s	9.0	2.2	17.9	14.0
Green Ext Time (p_c), s	1.1	1.2	8.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	435	85	110	545	5	105	5	160	5	5	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Cap, veh/h	144	892	173	403	1085	9	372	8	266	224	89	197
Arrive On Green	0.00	0.19	0.19	0.39	0.39	0.39	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	818	1516	295	842	1844	16	1392	44	1546	1200	519	1142
Grp Volume(v), veh/h	0	0	565	120	0	597	114	0	179	5	0	16
Grp Sat Flow(s),veh/h/ln	818	0	1811	842	0	1860	1392	0	1590	1200	0	1661
Q Serve(g_s), s	0.0	0.0	14.0	6.3	0.0	12.4	3.7	0.0	5.3	0.2	0.0	0.4
Cycle Q Clear(g_c), s	0.0	0.0	14.0	20.3	0.0	12.4	4.1	0.0	5.3	5.5	0.0	0.4
Prop In Lane	1.00		0.16	1.00		0.01	1.00		0.97	1.00		0.69
Lane Grp Cap(c), veh/h	144	0	1065	403	0	1094	372	0	274	224	0	286
V/C Ratio(X)	0.00	0.00	0.53	0.30	0.00	0.55	0.31	0.00	0.65	0.02	0.00	0.06
Avail Cap(c_a), veh/h	283	0	1373	546	0	1410	688	0	635	497	0	663
HCM Platoon Ratio	0.33	0.33	0.33	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.80	0.82	0.00	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	14.0	18.6	0.0	10.0	19.1	0.0	19.3	21.9	0.0	17.3
Incr Delay (d2), s/veh	0.0	0.0	1.5	1.5	0.0	1.6	0.5	0.0	2.6	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.0	0.0	7.1	1.4	0.0	5.7	1.2	0.0	2.0	0.1	0.0	0.2
Lane Grp Delay (d), s/veh	0.0	0.0	15.5	20.1	0.0	11.6	19.5	0.0	22.0	21.9	0.0	17.4
Lane Grp LOS			B	C		B	B		C	C		B
Approach Vol, veh/h		565			717			293			21	
Approach Delay, s/veh		15.5			13.0			21.0			18.5	
Approach LOS		B			B			C			B	

Timer				
Assigned Phs	2	6	8	4
Phs Duration (G+Y+Rc), s	35.5	35.5	14.6	14.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	38.0	38.0	20.0	20.0
Max Q Clear Time (g_c+I1), s	16.0	22.3	7.3	7.5
Green Ext Time (p_c), s	8.5	7.2	1.2	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Notes

APPENDIX K

TRUCK ROUTE FEASIBILITY STUDY

TRUCK ROUTES

Overview

Although not part of the original traffic study, potential truck routes within the City were evaluated. The truck route evaluation was added to this traffic study to assist in the City's ongoing study of potential routes through the City. The purpose of this analysis was not to recommend a final preferred route or routes, rather the intent of the analysis was to assess the potential of each route. The results of this evaluation can be used by City staff, elected officials, and residents as part of a decision-making process, should it ultimately be decided to designate truck routes within the City limits.

Before presenting specific information for the evaluation, a few cautionary statements should be kept in mind by readers:

- First, taking into consideration the existing situation in Marquette, all of the candidate routes considered have at least some negative characteristics. Though some routes have less negative factors than others, they all have at least some drawbacks. These will need to be weighed against the potential benefits of route designation.
- Designated truck routes require long term planning, zoning, development, and capital improvement upgrades. Land use patterns and roadway characteristics are in many cases not consistent with the designation of truck routes.
- One important consideration for the City will be the type of truck trips that are to be accommodated by designated routes. Some routes could potentially provide better access to local origins and designations, while other routes would primarily serve longer distance truck trips which originate and/or end outside the City limits. And some routes may in fact serve both purposes reasonably well.
- The designation of truck routes comes with costs. Designated routes will likely require capital investments over time in order to maintain/upgrade roadways and to mitigate or minimize conflicts with other road users such as pedestrians.
- It is assumed that route designation would be considered as part of an inclusive process that allows careful deliberation and input from potentially affected stakeholders.

It is within this context that the remainder of this report section should be viewed.

As part of the evaluation, several criteria were considered to identify potential truck routes. These criteria were used for the following reasons: (1) they are most relevant to an engineering evaluation; (2) collaboration amongst stakeholders identified these as most relevant factors; (3) funding for the evaluation was limited. Other relevant evaluation factors, such as social conditions, could be addressed as part of future additional studies. The criteria that were used included:

- Roadway classification
- Connection to arterial (i.e., major) roadways
- Connection to potential truck origins and destinations
- Pedestrian volumes
- Population density
- Land use and zoning
- Existing traffic volumes/turning movements

- Presence of on-street parking
- Number of stop signs and/or signals
- Existing traffic delays at intersections along a route
- Road grades/steepness, especially near intersections

It should be noted that weight restrictions are currently in place on Division Street, Grove Street, and Lakeshore Boulevard from Baraga Avenue to U.S. 41. Of these three segments, the first two were considered as potential truck routes, but Lakeshore Boulevard was not. For the purposes of this analysis, these restrictions were not considered (i.e., these candidate routes were evaluated using the same criteria as other routes without weight restrictions). It is recognized that the City may decide these routes are not viable due to the factors that led to the restrictions, such as policy-making process that weighs and balances public concerns and values.

City staff assisted in providing data for various candidate routes. Summary tables showing evaluation criteria for the north/south and east/west candidate routes considered can be found as Attachment K-1.

Existing Truck Volumes

As part of the traffic data collection effort undertaken for this project, vehicle classifications were recorded for each road segment. For the purposes of this study, trucks were simplified into two categories based on FHWA classifications – Single Unit Trucks (SU) and Multi-Unit Trucks (MU). The SUs represent FHWA classes 5, 6, and 7 and include trucks on a single frame that have two or more axles such as box trucks and garbage trucks. MUs represent FHWA classes 4, 8, 9, 10, 11, 12, and 13 which include tractor trucks pulling one or more trailers and buses. The truck volumes are summarized in this way since the MU class is typically of most concern when considering truck route designations due to their length and weight.

Based on this data, the number of trucks along each candidate route was quantified. Table K-1 shows the number of trucks on the City jurisdiction (i.e., non-MDOT) segments. These existing truck volumes provide a general indication of the routes truck drivers currently prefer, based on their origins and destinations, travel times, and the existing road facilities. The exception to this statement would be for the areas near Division and Grove Streets, where weight restrictions are currently in place.

Candidate Routes

Over 40 roadway segments were considered and evaluated as candidate truck routes (Figure K-1). As part of the study, each candidate route was driven and video recorded to detail the existing conditions (i.e., pavement widths, road cross section, non-motorized facilities, adjacent land uses, intersection controls, etc.). This field review, existing truck volumes, and the summary tables provided by City staff (Appendix K) were used as the basis for the analysis and identification of potential truck routes for further consideration by the City. The potential routes are shown in Figure K-1.

Upon review of this available information, candidate routes were placed into two categories: “Less Desirable” routes and “Potential” routes. The majority of the routes evaluated were determined to be “Less Desirable” because they provide limited benefits and have one or more of the following negative characteristics:

- Do not provide connectivity to arterial roadway(s) or to likely truck origins/destinations
- Traverse primary residential areas

- Have high pedestrian volumes
- Have narrow cross sections
- Steep grades near intersections
- Include long stretches of on-street parking

Table K-2 lists the contributing factors that make these routes less desirable when compared to the other routes.

The identified potential routes generally provide connectivity to arterial roadways on both ends of the road segment and/or provide access to truck traffic generators such as NMU, downtown Marquette and the hospital (current and potential future sites), and have adequate width to accommodate trucks. Potential routes were also evaluated as to how they work in conjunction with the current truck routes under MDOT jurisdiction (US 41/M 28 and M-553).

Potential routes were separated into two route classifications: "Local Routes" and "Through Routes." Local routes are routes that provide direct access to truck traffic generators or provide access to roadways that serve such generators. The purpose of local routes is to provide ingress and egress points closest to delivery, pick-up, or service areas, thus allowing the local streets to be utilized only when necessary for the completion of the pick-up, delivery, or service. Through routes are those that provide access to origins/destinations beyond the City for trucks which do not have a pick-up, delivery, or service within the city.

Table K-3 and Figure K-1 identify the road segments that should receive further consideration as potential truck routes.

Next Steps

Per the Michigan Vehicle Code, Act 300 of 1949, Section 257.726, local authorities may do any of the following by ordinance or resolution:

> (a) Prohibit the operation of trucks or other commercial vehicles on designated highways or streets.
> (b) Impose limitations as to the weight of trucks or other commercial vehicles on designated highways or streets.
> (c) Provide that only certain highways or streets may be used by trucks or other commercial vehicles.

The City of Marquette adopted such an ordinance that prescribes truck movement in the City of Marquette and has also recently executed a maintenance agreement with Lundin Mining for their use of City roads. A draft amendment to the current truck ordinance contains language that provides for continued evaluation and monitoring of routes over time.

We recommend that the potential routes identified above would be further evaluated by City staff, decision makers, and residents as part of an inclusive process that allows careful deliberation and input from potentially affected stakeholders, residents, and trucking industry representatives. During this process, a more detailed inventory along each segment should be undertaken to identify any of the following elements/deficiencies that may impact truck accommodation along the routes:

- Pavement/curb conditions in need of upgrade
- Intersection geometry
    - curb radii
    - utility/pole, landscape, and tree locations
    - pedestrian facilities
    - sight distances
- Pedestrian/non-motorized conflicts
- On-street parking conflicts
- More specific truck origins /destinations
    - Mining operations
    - Lumber/logging operations
    - High truck traffic generators (i.e., NMU, hospital, US 41 commercial corridor, etc.)

If specific segments are designated as truck routes, a truck route improvement plan should be developed. The plan could include the following elements:

- Truck route ordinance language
- Prioritized list of capital improvements with potential funding sources
- Long term planning and zoning changes that could be beneficial
- Specific mitigation measures to address non-motorized and parking conflicts

The City may also want to consider getting input from trucking industry representatives during this process, since this road user perspective may help the City target potential capital investments.

TABLE K-1

Number of Trucks on Road Segments Based on Vehicle Classification Counts

		Day 1			Day 2		
Corr. #	Corridor Analysis Locations	SU	MU	Total	SU	MU	Total
C1	Hawley Street from City limits to Lakeshore Boulevard	156	55	211	156	49	205
C2	Sugarloaf Avenue from Wright Street to Hawley Street	406	223	629	435	208	643
C3	Wright Street from City limits to Lakeshore Boulevard	595	333	928	531	316	847
C4	Wright Street from City limits to Lakeshore Boulevard (Loc. 2)	339	228	567	312	227	539
C5	Presque Isle Avenue from College Avenue to Hawley Street	197	124	321	191	128	319
C6	Presque Isle Avenue from College Avenue to Hawley Street (Loc. 2)	673	342	1015	587	299	886
C7	Center Street from Presque Isle Avenue to Tracy Avenue	75	34	109	73	37	110
C8	Fair Avenue from Presque Isle Avenue to Lakeshore Boulevard	176	74	250	195	85	280
C9	College Avenue from Lincoln Avenue to Front Street	53	25	78	63	36	99
C10	Magnetic Street from Lincoln Avenue to Front Street	52	30	82	38	25	63
C11	Magnetic Street from Lincoln Avenue to Front Street (Loc. 2)	176	77	253	193	108	301
C12	College Avenue from Lincoln Avenue to Front Street (Loc. 2)	248	90	338	327	122	449
C13	Fair Avenue from City limits to Seventh Street	251	100	351	158	67	225
C14	Fair Avenue from City limits to Seventh Street (Loc. 2)	275	146	421	252	129	381
C15	McClellan Avenue from U.S. 41 to Wright Street (Loc. 2)	211	112	323	215	111	326
C16	McClellan Avenue from U.S. 41 to Wright Street	576	374	950	594	321	915
C17	Grove Street from City Limits to U.S. 41	73	38	111	125	30	155
C18	Seventh Street from U.S. 41 to Fair Avenue (Loc. 2)	391	186	577	412	219	631
C19	Seventh Street from U.S. 41 to Fair Avenue	385	232	617	370	208	578
C20	Pine Street from Ridge Street to Fair Avenue	74	33	107	84	37	121
C21	Front Street from U.S. 41 to Fair Avenue	68	23	91	75	27	102
C22	Third Street from Fisher Street to Fair Avenue	222	88	310	197	74	271
C23	Fourth Street from Fisher Street to College Avenue	197	117	314	211	120	331
C24	Hewitt Avenue from Seventh Street to Lakeshore Boulevard (Loc. 2)	35	25	60	49	25	74
C25	Pine Street from Ridge Street to Fair Avenue (Loc. 2)	29	11	40	29	21	50
C26	Hewitt Avenue from Seventh Street to Lakeshore Boulevard	47	9	56	48	9	57
C27	Front Street from U.S. 41 to Fair Avenue (Loc. 2)	790	205	995	772	183	955
C28	Third Street from Fisher Street to Fair Avenue (Loc. 2)	289	117	406	276	87	363
C29	Fourth Street from Fisher Street to College Avenue (Loc. 2)	118	37	155	122	45	167
C30	Grove Street from City Limits to U.S. 41 (Loc. 2)	61	24	85	79	18	97
C31	Lincoln Avenue from Washington Street to Wright Street	265	107	372	287	95	382
C32	Lincoln Avenue from Washington Street to Wright Street (Loc. 2)	183	59	242	154	76	230
C33	Washington Street from U.S. 41 to Lakeshore Boulevard	986	402	1388	1033	407	1440
C34	Washington Street from U.S. 41 to Lakeshore Boulevard (Loc. 2)	676	359	1035	679	356	1035

SU = Single Unit Vehicle; These include all trucks on a single frame with two or more axles.

MU = Multi-Unit Vehicle; These vehicles include tractor trucks with three or more axles, which are pulling one or more trailers.

TABLE K-2
Less Desirable Truck Routes

Street Name	Route Designation	From	To	Comments
East-West Routes				
Baraga Avenue	A	Lakeshore Boulevard	Fourth Street	Collector street, high pedestrian volumes, on-street parking, public attractions/buildings, no connection to arterial
Bluff Street	B	Front Street	Fourth Street	Collector street, moderate pedestrian volumes, residential land uses, no connection to arterial
College Avenue	C	Lincoln Avenue	Seventh Street	Collector street, moderate pedestrian volumes, residential land uses, no connection to arterial
College Avenue	C	Presque Isle Avenue	Front Street	Collector street, moderate pedestrian volumes, residential land uses, no connection to arterial
Fair Avenue	D	City Limits	Eighth Street	Collector street, residential land uses, high school, no connection to arterial
Fair Avenue	E	Presque Isle Avenue	Lakeshore Boulevard	Collector street, pedestrians, residential, no connection to arterial, transit route
Fisher Street	F	Front Street	Grove Street	Collector street, moderate pedestrian volumes, residential land uses
Genesee Street	G	Front Street	Division Street	Redundant route
Grove Street	H	City Limits	Fisher Street	Collector street, steep slope, redundant route
Hampton Street	I	Lake Street	Front Street	No immediate or intermediate truck destinations
Hawley Street	J	Lakeshore Boulevard	County Rd 550	Recreational park, campus, residential land uses
Hewitt Avenue	K	Fourth Street	Pine Street	Collector street, some pedestrian volumes, residential land uses, no connection to arterial
Kaye Avenue	L	Lee Hall	Front Street	Collector street, moderate pedestrian volumes, adjacent to university, hospital, no connection to arterial
Magnetic Street	M	Seventh Street	Presque Isle	Collector street, high pedestrian volumes, adjacent to hospital, no connection to arterial
Main Street	N	Lakeshore Boulevard	Third Street	Collector street, high pedestrian volumes, only one connection to arterial, heavy vehicle turning volumes
Pioneer Road	O	Division Street	McClellan Avenue	High pedestrian volumes, redundant route
Ridge Street	P	Pine Street	Fourth Street	Collector street, residential land uses, no connection to arterial
Ridge Street	Q	McClellan Avenue	Meeske Avenue	Collector street, residential land uses, only one connection to arterial, moderate vehicle turning movements
Spring Street	R	Lakeshore Boulevard	Fourth Street	Collector street, high pedestrian volumes, only one connection to arterial, moderate vehicle turning movements
Washington Street*	S	US 41	McClellan Avenue	Redundant route
Wright Street	T	Sugar Loaf Avenue	Presque Isle Avenue	No immediate or intermediate truck destinations

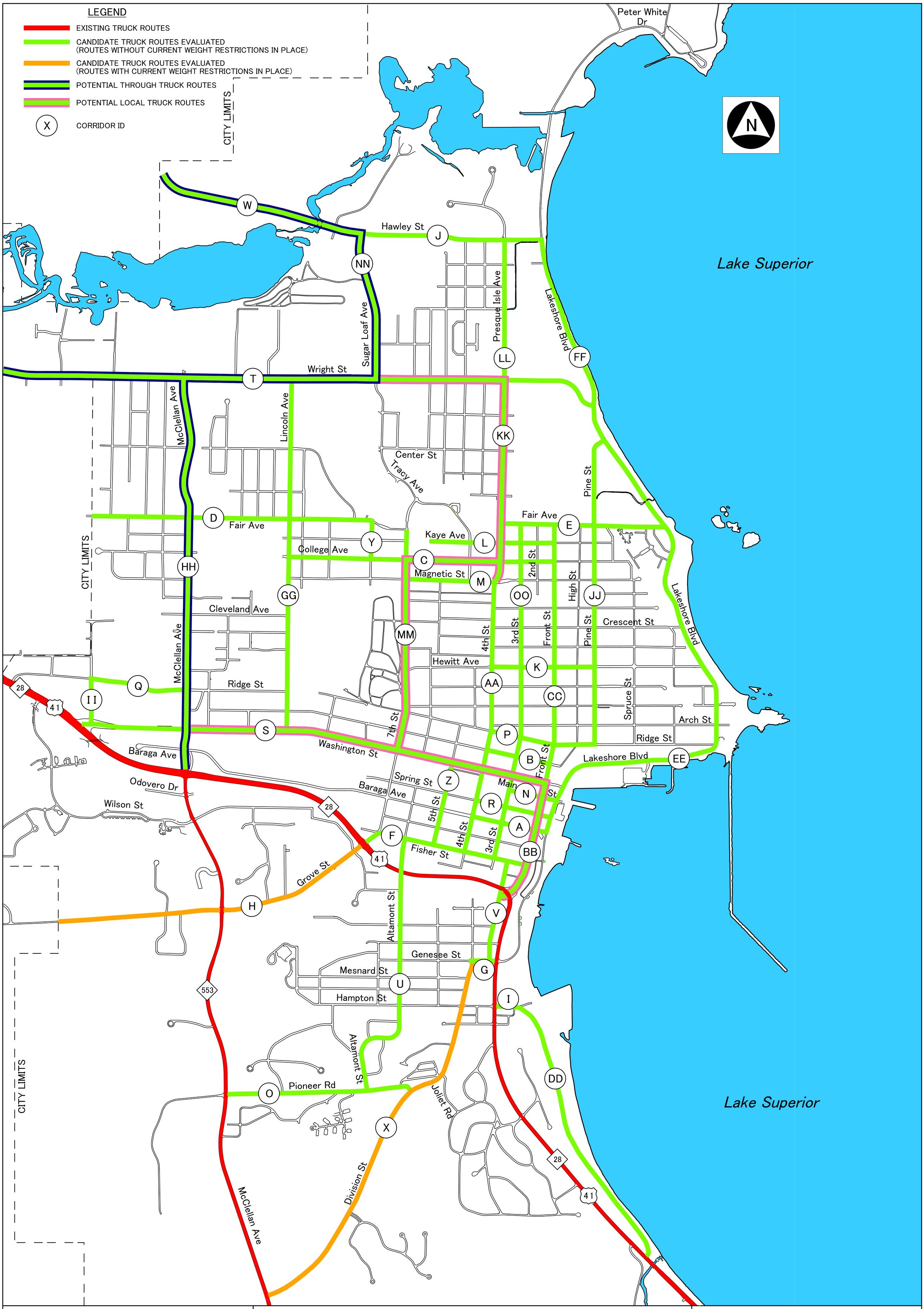
TABLE K-2
Less Desirable Truck Routes (cont.)

Street Name	Route Designation	From	To	Comments
North-South Routes				
Altamont Street	U	Fisher Street	Pioneer Road	Collector street, residential land uses, steep slopes, no connection to arterial
Champion Street	V	Fisher Street	Genesee Street	Collector street, residential land uses, connection to arterial only on one end of corridor
Division Street	X	Genesee Street	McClellan Avenue	Redundant route
Eighth Street	W	College Avenue	Fair Avenue	Collector street, residential, no connection to arterial
Fifth Street	Z	Washington Street	Fisher Street	Collector street, residential land uses, moderate pedestrian volumes, steep slopes, moderate vehicle turning movements, connection to arterial only on one end of corridor
Fourth Street	AA	Fisher Street	Magnetic Street	Collector street, residential land uses
Front Street	CC	Washington Street	Fair Avenue	Collector street, residential land uses, moderate pedestrian volumes, connection to arterial only on one end of corridor
Lake Street	DD	US 41	Hampton Street	Residential, narrow road, scenic, access to lake/beach
Lakeshore Boulevard	EE	Baraga Avenue	Wright Street	Collector street, transit corridor, pedestrians
Lakeshore Boulevard	FF	Wright Street	Hawley Street	Collector street, transit route, pedestrians
Lincoln Avenue	GG	Washington Street	Wright Street	Collector street, steep slopes, residential, moderate pedestrian volumes, moderate vehicle turning movements, connection to arterial only on one end of corridor
Meeske Avenue	II	Ridge Street	Washington Street	Collector street, residential land uses
Pine Street	JJ	Ridge Street	Lakeshore Boulevard	Collector street, residential, connection to arterial only on one end of corridor, steep slope
Presque Isle	LL	Wright Street	Hawley Street	Collector street, residential, connection to arterial only on one end of corridor
Seventh Street	MM	College Avenue	Eliz. Harden Drive	Collector street, campus, residential, no connection to arterial
Third Street	OO	Fisher Street	Fair Avenue	Collector street, mixed use, heavy pedestrian volumes, steep slope, heavy vehicle turning movements

TABLE K-3
Potential Truck Routes

Street Name	Route Designation	From	To	Comments
East-West Routes				
College Avenue*	C	Seventh Street	Presque Isle Avenue	Connects truck route "loop" to Washington Street, provides access to NMU and hospital
Washington Street*	S	Front Street	McClellan Avenue	Main arterial connecting Front Street to US 41/M 28, providing access to downtown business area, commercial corridor
Wright Street**	T	Sugar Loaf Avenue	City Limits	Main arterial connecting to US 41, providing access to NMU and hospital (via Presque Isle Avenue), western Marquette County, CR 550
North-South Routes				
County Road 550 (Hawley Street)**	W	Sugar Loaf Avenue	City Limits	Provides access to mines, logging, Big Bay, northwestern Marquette County
Front Street*	BB	US 41/ M 28	Washington Street	Provides connection from US 41 to Washington Street, Downtown business area, commercial corridor
McClellan Avenue**	HH	Wright Street	US 41/M 28	Main arterial connecting US 41/ M 28 to Wright Street, northern/central portions of the City, and CR 550
Presque Isle Avenue*	KK	Magnetic Street	Wright Street	Provides connection between Wright Street (main arterial) and NMU, hospital
Seventh Street*	MM	Washington Street	College Avenue	Connects truck route "loop" to Washington Street, provides access to NMU, hospital, central portion of the City
Sugar Loaf Avenue**	NN	Wright Street	Hawley Street	Provides connection between Wright Street (main arterial) and Hawley/CR 550, providing access to mines, logging, Big Bay, northwestern Marquette County

*Local Route
**Through Route



DLZ

CITY OF MARQUETTE TRAFFIC STUDY

FIGURE K-1
CANDIDATE
TRUCK ROUTES

ATTACHMENT K-1

TRUCK ROUTE FEASIBILITY INFORMATION PROVIDED BY THE CITY OF MARQUETTE

CITY OF MARQUETTE TRUCK ROUTE FEASIBILITY STUDY

MAJOR EAST/WEST STREETS

ID	STREET NAME	FROM	TO	LENGTH (ft)	CLASSIFICATION *(PA,MA,C)	IDENTIFIED TRANS. CORRIDOR (Y OR N)	STOP SIGNS/ TRAFFIC SIGNALS (NUMBER)	PARKING N, 1S, 2S)	ZONING ** (R, B, OS, I, CR)	STEEP SLOPES NEAR INTERSECT. (Y OR N)	CONNECTIVITY TO ARTERIAL (Y OR N)	PED. TRAFFIC DENSITY (H, M, L)	POPULATION DENSITY (H, M, L)	TURNING MOVEMENTS (H, M, L)	TRAFFIC COUNTS (CORRIDOR AVG.)
A	Baraga Avenue	Lakeshore	Fourth	1438	C	N	3	2S	R, B, OS	Y	Y(INTERMEDIATE)	H	H	H	N/A
B	Bluff Street	Front	Fourth	1206	C	N	3	2S	R,B	N	N	M	M	L	900
C	College Avenue	Lincoln	Front	5009	C	N	4	2S, 1S	R, OS, MGH	N	N	M	L TO M	L	6100(NEAR P.I.)
D	Fair Avenue	W. City limits	Eighth	5256	C	Y	2	2S, 1S	R, OS	N	N	L	M	L	7650
E	Fair Avenue	Presque Isle	Lakeshore	3117	C	Y	3	2S	R, OS, CR	N	N	L	M	L	11100(NEAR P.I.)
F	Fisher Street	Front	Grove	2855	C	N	3	1S	R	Y	Y(BOTH ENDS)	M	H	L	4900
G	Genesee Street	Front	Division	462	MA	N	2	N	B	N	Y(BOTH ENDS)	L	L	M	7300
H	Grove Street	W. City limits	Fisher	6355	C	N	3	2S	R, B	Y	Y(INTERMEDIATE)	L	L	L	2000
I	Hampton Street	Lake	Front	410	MA	N	1	N	B	N	Y(ONE END)	L	L	L	N/A
J	Hawley Street	Lakeshore	Cnty Rd. 550	3433	C	N	1	1S	R, I	N	N	L	M	L	3200
K	Hewitt Avenue	Fourth	Pine	1938	C	N	3	2S	R, OS	N	N	L	H	L	2700
L	Kaye Avenue	Lee Hall Dr	Front	2020	C	N	4	2S	R, OS, MGH	N	N	L	L	L	7100
M	Magnetic Street	Seventh	Presque Isle	1674	C	N	2	2S	MGH	N	N	H	L	M	3900(NEAR 7TH)
N	Main Street	Lakeshore	Third	923	C	N	3	2S	B	N	Y(ONE END)	H	L	H	N/A
O	Pioneer Road	Division	McClellan	3555	C	N	2	N	R, CR	N	Y(BOTH ENDS)	H	L	L	1700
P	Ridge Street	Pine	Fourth	1965	C	N	2	2S	R, B	N	N	L	H	L	1400
Q	Ridge Street	McClellan	Meeske	1827	C	N	2	N	R, B	N	Y(ONE END)	L	M	M	4600
R	Spring Street	Lakeshore	Fourth	1456	C	N	4	2S	B, OS	N	Y(ONE END)	H	L	M	N/A
S	Washington Street	US 41 West	Front	10000	MA	N	9	N, 1S, 2S	B, I	N	Y(BOTH ENDS)	M	L	H	18000 W. END/11700 E. END
T	Wright Street	Lakeshore	W. City limits	15393	MA	N	2	N, 1S	R, B, I	N	Y(ONE END)	L	M	M	8200

* C - Collector Streets
PA - Primary Arterial
MA - Main Arterial

** R - Residential
B - Business
OS - Office Space
I - Industrial
CR - Conversation/Recreation

CITY OF MARQUETTE TRUCK ROUTE FEASIBILITY STUDY

MAJOR NORTH/SOUTH STREETS

ID	STREET NAME	FROM	TO	LENGTH (ft)	CLASSIFICATION * (PA,MA,C, SC)	IDENTIFIED TRANS. CORRIDOR (Y OR N)	STOP SIGNS/ TRAFFIC SIGNALS (NUMBER)	PARKING N, 1S, 2S)	ZONING ** (R, B, OS, I, CR)	STEEP SLOPES NEAR INTERSECT. (Y OR N)	CONNECTIVITY TO ARTERIAL (Y OR N)	PED. TRAFFIC DENSITY (H, M, L)	POPULATION DENSITY (H, M, L)	TURNING MOVEMENTS (H, M, L)	TRAFFIC COUNTS (CORRIDOR AVG.)
U	Altamont (Local)	Fisher	Pioneer	5263	C	N	3	N, 1S	R	Y	N	L	M	L	2350
V	Champion	Fisher	Genesee	1916	C	N	2	1S	R	N	Y (ONE END)	L	M	L	3200
W	County Road 550	Sugar Loaf	City Limits	3730	C	N	0	N	CR	N	N	L	L	L	2000
X	Division Street	Genesee	McClellan	7746	MA	N	2	N, 1S	R, B, OS	N	Y (BOTH ENDS)	L	L	L	3500
Y	Eighth Street	College	Fair	725	C	N	3	2S	R	N	N	L	L	L	N/A
Z	Fifth Street	Washington	Fisher	1592	C	N	2	1S	R, B, OS	Y	Y (ONE END)	M	H	M	4100
AA	Fourth Street	Fisher	Magnetic	5147	C	Y	3	N	R, B, OS	Y	Y (ONE END)	M	H	H	8900
BB	Front Street	US41/M28	Washington	1655	C	N	5	N, 2S	R, B, OS	Y	Y (ONE END)	M	H	L	11800 S. END/14000 N. END
CC	Front Street	US41/M28	Fair	6778	C	N	5	N, 1S	R, B, OS	Y	Y (ONE END)	M	H	L	14000 S. END/1600 N. END
DD	Lake Street	US 41 South	Hampton	5482	C	N	1	1S	R, CR, I	N	Y (BOTH ENDS)	L	L	L	N/A
EE	Lakeshore Blvd.	Baraga	Wright	11125	SC	Y	2	N, 1S	R, B, CR, I	N	Y (BOTH ENDS)	M	L	L	3400
FF	Lakeshore Blvd.	Wright	Hawley	3315	SC	Y	0	N, 1S	R, B, CR, I	N	Y (BOTH ENDS)	M	L	L	2800
GG	Lincoln Avenue	Washington	Wright	6631	C	N	3	N	R, B, OS	Y	Y (ONE END)	M	M TO H	M	7000
HH	McClellan Avenue	Fair	US 41/M28	4722	MA	Y	3	N, 1S	R, B	Y	Y (BOTH ENDS)	L	L	L	14100 S. END/8200 N. END
II	Meeske Avenue	Ridge	Washington	780	C	N	1	1S	B, OS	N	Y (BOTH ENDS)	L	M	L	N/A
JJ	Pine Street	Ridge	Lakeshore	6250	C	N	6	N	R, CR	Y	Y (ONE END)	L	H	L	1700
KK	Presque Isle	Magnetic	Wright	3592	C	N	3	2S	R, B, OS	N	Y (ONE END)	M	L	M	10900
LL	Presque Isle	Wright	Hawley	2658	C	N	3	2S	R, B, OS	N	Y (ONE END)	M	M	M	N/A
MM	Seventh Street	Washington	Eliz. C.Harden	4156	C	Y	3	1S	R, B, OS	Y	Y (ONE END)	L	L	L	3150
NN	Sugar Loaf Avenue	Wright	Hawley	2789	C	N	2	N	R, I	N	Y (ONE END)	M	L	M	4900
OO	Third Street	Fisher	Fair	6348	C	N	4	2S	B	Y	Y (INTERMEDIATE)	H	H	H	10200

* C - Collector Streets
PA - Primary Arterial
MA - Main Arterial

** R - Residential
B - Business
OS - Office Space
I - Industrial
CR - Conversation/Recreation

APPENDIX L

MARQUETTE HOSPITAL TRANSPORTATION IMPROVEMENTS PROJECT TRAFFIC IMPACT STUDY

FINAL
TRAFFIC IMPACT STUDY

Marquette Hospital Transportation Improvements Project
Marquette, Michigan

Prepared For:
City of Marquette

Prepared By:

DLZ Michigan, Inc.

DLZ Job No. 1341-6553-02

May 13, 2016

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Appendix A Existing Traffic Data
Appendix B Intersection Peak Hour Traffic Volumes
Appendix C Capacity Analysis Worksheets
Appendix D Data Received from DLP and MDOT

1. EXECUTIVE SUMMARY

This report presents the findings of a traffic impact study of the proposed relocation of Marquette General Hospital (MGH) from its existing location on West College Avenue to the proposed site on West Baraga Avenue, to the west of South Seventh Street. The proposed site location and study intersections are shown in Figure 2.

Proposed Development

The proposed development program and associated trip generation forecasts were provided by Duke Lifepoint (DLP) and their consultant, Littlejohn, an S&ME Company (Littlejohn). The current development program is for a 665,000 square foot hospital, 218,000 square feet of clinical services, and a 195,000 square-foot medical office building. Littlejohn's trip generation analysis, discussed below in more detail, forecasted that the development will generate an additional 23,406 trip ends per day including 1,098 trips in the AM peak hour and 2,444 trips in the PM peak hour.

The analysis summarized in this report was for the full build-out of this development. No analysis of phased construction was conducted. For these analyses, it was assumed that the full development will be constructed and open in the year 2018.

Proposed Roadway Improvements

DLZ went through a process of assessing alternatives for roadway improvements needed to accommodate the expected future traffic volumes associated with the relocated hospital. This process resulted in the selection of a Preferred Alternative illustrated in Figure 1. The Preferred Alternative includes a set of recommended roadway improvements, a summary of which is listed below.

- Main Hospital Entrance Connection to US-41 with a Roundabout Intersection;
- The existing intersection of US - 41 with Grove/Seventh Streets is converted to a roundabout intersection;
- The proposed intersection of Baraga Avenue with the Main Hospital Entrance is proposed as a compact urban roundabout with two northbound lanes for traffic entering the site from US-41;
- The westbound approach of Baraga Avenue at McClellan Avenue is restricted to allow right turns only, all other movements at this intersection will be permitted, and the intersection will continue to operate as stop controlled on Baraga Avenue approaches and free flow on McClellan Avenue;
- McClellan Avenue is widened to provide northbound and southbound left turn lanes at Baraga Avenue and to lengthen the northbound left turn lane at Washington Street;
- The existing traffic signal at the intersection of McClellan Avenue and Washington Street is modified to provide protected left turn phasing;
- Seventh Street is widened to provide a center left turn lane from north of Spring Street to Fisher Street and left turn lanes are provided on the Baraga Avenue and Spring Street minor leg approaches to Seventh Street.

- Non-motorized facilities to be constructed alongside and as part of the above roadway improvements to accommodate pedestrians and bicycles consistent with City and MDOT plans and requirements.

Additionally, the intersection of M-553 and Grove Street was assumed to be upgraded from an all-way stop controlled intersection to traffic signal control in all future scenarios. This intersection upgrade project is already planned for implementation by MDOT (unrelated to the proposed hospital relocation).

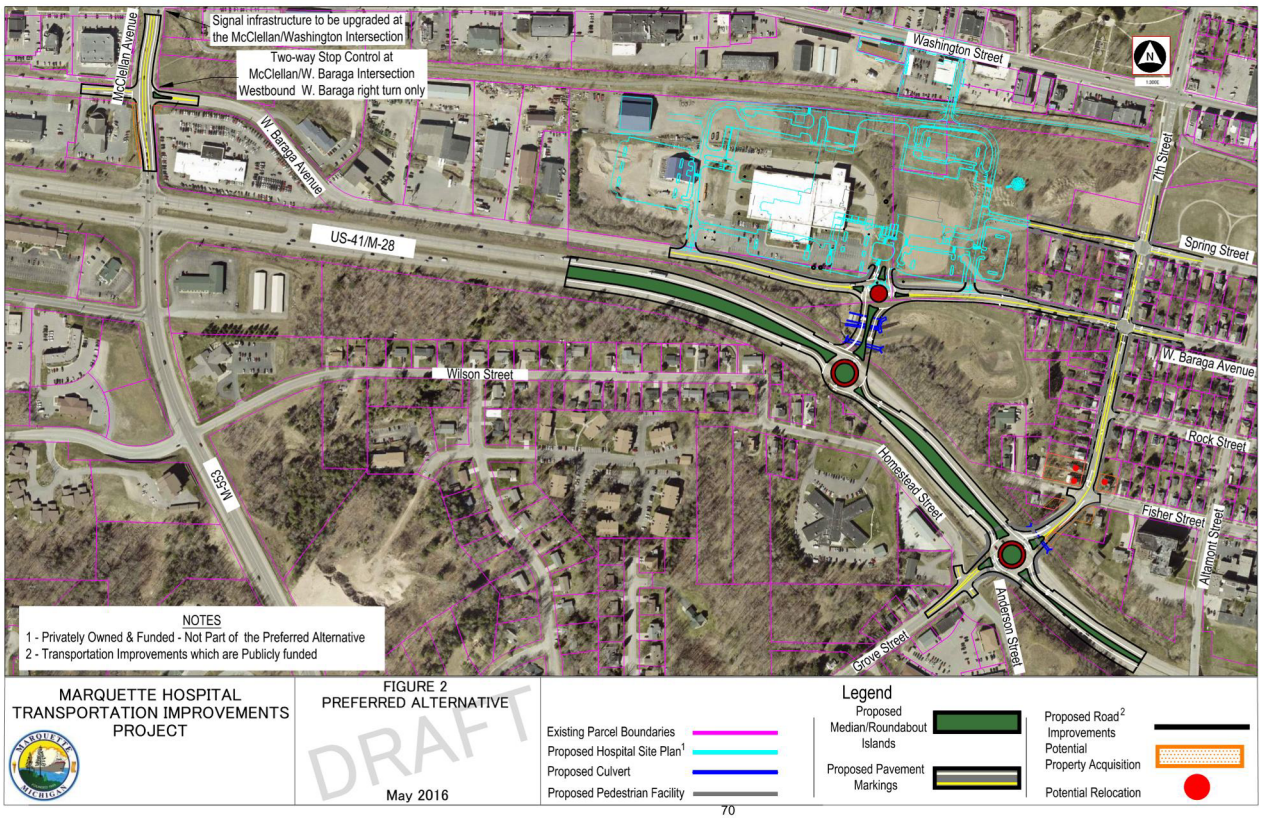


Figure 1 - Preferred Alternative Concept Geometric Plan

Figure 2 - Location Map

Conclusions

The analysis presented in this report found that the above roadway improvements (the Preferred Alternative) are expected to accommodate anticipated hospital traffic as well as anticipated regional traffic growth through the Design Year of 2038.

Disclaimer

The opinions, findings and conclusions expressed in this Traffic Impact Study are those of DLZ Michigan, Inc. and not necessarily those of MDOT.

Project Name: Marquette Hospital Transportation Improvements Project

Applicant: City of Marquette

MDOT Review By: _____

MDOT Signature: _____

Accepted ☐ Rejected ☐

2. STUDY METHODOLOGY

This study was conducted to meet the requirements set forth in MDOT's "Traffic and Safety Note 607C – Traffic Impact Studies." The following are descriptions of the scenarios analyzed in this study.

Existing Conditions – The study reviewed year 2015 conditions of existing traffic volumes and intersection operations throughout the study area.

Opening Year 2018 Background Conditions – Background conditions review future year scenarios without the planned development. In this study, year 2018 background conditions were not analyzed since analysis results three years from 2015 were not expected to be substantially different from existing conditions.

Opening Year 2018 No Build Conditions – No Build conditions review the impacts of the full build-out of the development on the existing roadway network without building any roadway improvements. Opening Year 2018 No Build analyses assess the expected operations of the study area with background traffic growth and expected hospital site traffic.

Opening Year 2018 Build Conditions – This scenario assess the operations of the study area upon opening day of full build-out of the hospital with the proposed roadway improvements of the Preferred Alternative that have been developed to accommodate expected future traffic volumes.

Design Year 2038 Background Conditions – The study area was analyzed in the design year of 2038 with anticipated growth of background traffic but without the proposed hospital.

Design Year 2038 No Build Conditions – This scenario includes both background traffic growth and expected hospital site traffic 20 years after the planned hospital opening, but assumes no improvements to the study area roadways.

Design Year 2038 Build Conditions – Build conditions consider the planned roadway improvements with anticipated background traffic growth 20 years after development opening.

DATA COLLECTION

In 2014, DLZ conducted a City-Wide Traffic Study for the City of Marquette. That study included the collection of traffic data at 81 intersections throughout the City and analyzed existing and forecasted conditions 20 years into the future. Traffic data previously collected in 2013 as part of the City-Wide Traffic Study, as well as additional data collected in late 2014, was used in the analysis for this current study. The study area for the current study was defined to include the following existing intersections:

- US-41 and M-553/McClellan Avenue
- US-41 and Seventh Street/Grove Street
- US-41 and Front Street
- Grove Street and M-553
- Grove Street and Homestead/Anderson Street
- Seventh Street and Fisher Street
- Seventh Street and Baraga Avenue
- Seventh Street and Washington Street
- Seventh Street and Spring Street
- Baraga Avenue and McClellan Avenue
- Washington Street and McClellan Avenue

TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

The analyses assessed existing conditions (year 2015), "no-build" conditions in the anticipated design year of 2038 as well as build conditions for the design year. The design year was established as 20 years beyond the anticipated year of completion of the development (2018).

The proposed MGH site plan with site driveway access locations was provided by DLP and incorporated into this study. Forecasted traffic volumes for the proposed development program were provided by DLP. Forecasted traffic volumes at the study intersections along US-41 were provided by MDOT for the opening and design years. Memoranda from DLP and MDOT which included this information are included in Appendix D. The City and MDOT also provided DLZ with base Synchro capacity analysis model files and traffic signal timings as applicable.

CAPACITY ANALYSIS

Intersection capacity analyses were performed for the study intersections during the Weekday AM and PM peak hours to determine their levels of service (LOS). LOS is a qualitative measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Operational LOS reflects delays experienced by the motorist and are designated a letter grade of A through F. LOS A represents the best operating conditions and LOS F the worst. LOS D or better is considered within acceptable limits. The

Highway Capacity Manual defines level-of-service for signalized and unsignalized intersections as a function of the average vehicle control delay in seconds per vehicle (sec) as summarized in Table 1 below.

Table 1 - LOS Criteria for Control Delay at Intersections

Level of Service Grade	Signalized Intersection (sec)	Unsignalized Intersection (sec)
A	≤10	≤10
B	10-20	10-15
C	20-35	15-25
D	35-55	25-35
E	55-80	35-50
F	≥80	≥50

DLZ used RODEL capacity analysis software to conduct analyses at roundabout intersections, and Synchro Capacity Analysis Software version 9 to calculate the LOS at all other study intersections. The reported capacity analysis results from the Synchro analysis are results computed according to Highway Capacity Manual 2010 methodology. The reported results from the RODEL analysis for the roundabouts are for the 50% confidence level under all scenarios. The RODEL 50% confidence level LOS results are comparable to the Synchro LOS results. Therefore, an accurate comparison can be made between intersection types. It should be noted that under the Preferred Alternative, all proposed roundabout intersections were also tested at the 85% confidence level (i.e., a pessimistic capacity) to ensure each roundabout would provide acceptable LOS in a “worst case” scenario.

3. EXISTING CONDITIONS YEAR 2015

DLZ collected relevant information pertaining to adjacent land uses, the surrounding roadway network, traffic controls, and existing traffic volumes in the study area as part of the City-Wide Traffic Study conducted in 2013 with additional data collection occurring in 2014.

TRANSPORTATION SYSTEM INVENTORY

The following is a description of the physical, functional and operational characteristics of the study area highway system.

US Route 41 (US-41) is a limited access Principal Arterial trunkline under the jurisdiction of MDOT. It generally has two lanes operating in each direction and is divided by a median west of Seventh Street. Its intersection with McClellan Avenue is signalized with indirect left turns within its median east and west of McClellan Avenue. Its intersection with Seventh Street/Grove Avenue is also signalized with direct left turns from US-41 with protected only phasing. Its intersection with Front Street is controlled by a roundabout and is a T-intersection with Front Street being the north leg and US-41 being the west and south legs of the intersection. The existing signalized intersections along US-41 are not currently coordinated for progression. The grades along US-41 are generally less than 3% within the study area except on the west leg of the existing roundabout with Front Street where the approach grade is about -8%. The posted speed limit on US-41 within the study area is 55 mph.

Seventh Street is a north-south Major Collector roadway that serves as a connection between US-41 and downtown Marquette. Within the study area, the land use along Seventh Street is generally residential. The roadway is approximately 30' wide and operates with one lane in each direction and on-street, parallel parking. Its intersections with Spring Street, Baraga Avenue and Fisher Street are stop controlled on the side street approaches and its intersection with Washington Avenue is controlled by a traffic signal. Existing traffic signals along Seventh Street are not coordinated with adjacent signals for progression. Grades along Seventh Street can be significant. Its northbound and southbound approaches to Washington Street are a 3% upgrade and a 6% downgrade, respectively, its southbound approach to Spring Street is -7% with a vertical curve at the intersection to lessen the deflection. The roadway slopes down from Fisher Street to US-41 at a 7% to 8% grade lessening with a vertical curve closer to US-41. The posted speed limit on Seventh Street is 25 mph.

Grove Street is a Minor Arterial running northeast and southwest in the study area. It connects Seventh Street and Marquette County Road 553 (M-553). It intersects with US-41, Homestead Street/Anderson Street, and Marquette County Road 553 (M-553). It is a signal controlled intersection at Grove Street and US-41; Two-way stop control on Homestead Street/Anderson Street; and All-way stop at Grove Street and Marquette County Road 553 (M-553). The roadway is approximately 30' wide and operates with one lane in each direction without on-street parking. The land use is a single-house residential area along the street. In the vicinity of Homestead/Anderson Street and on its approach to US-41, the grade along Grove Street is

between 5% and 10%. Its approach to US-41 is about a 1% downgrade. The posted speed limit on Seventh Street is 25 mph.

Spring Street is an east-west local, residential street. Currently it is a gravel street west of Seventh Street that bends south to connect to Baraga Avenue. This part of the street is on the proposed hospital development site.

Baraga Avenue is an east-west local street that goes through the study area from Seventh Street to McClellan Avenue, just south of the proposed hospital site. It is 33'wide and operates with one lane in each direction without on-street parking west of Seventh Street. Currently it is a Two-way stop control at Baraga Avenue/Seventh Street and Baraga Avenue/McClellan Avenue with stop signs on Baraga Avenue. Grades along Baraga Avenue are generally 3% or less. The posted speed limit on Baraga Avenue is 25 mph.

Washington Avenue is an east-west Minor Arterial roadway. It is 37' wide, 3 lanes with shared center turning lane and one lane each direction from Seventh Street to Lincoln Avenue. The posted speed limit is 25 mph. From 800 feet east of McClellan Avenue going west it becomes 2 lanes each direction with shared turning center lane. The posted speed limit is 35 mph. It is a signal controlled intersection at Washington Avenue/Seventh Street and at Washington Avenue/ McClellan Avenue. These signals are not coordinated for progression. Washington Street approaches McClellan Avenue with a downgrade of about 3% from the east and about 1% from the west. Elsewhere, grades along Washington Street are also generally 3% or less.

McClellan Avenue is a north-south Minor Arterial. The roadway is approximately 40' wide and operates with two lanes each direction without on-street parking. It intersects with Washington Street, Baraga Avenue, and US-41. The intersections at Washington Street and US-41 are signal controlled. The intersection at Baraga Avenue is Two-way stop controlled with stop signs on Baraga Avenue. The land use between Washington and US-41 is business. The posted speed limit on McClellan Avenue in the study area is 25 mph. The profile grades along McClellan Avenue on its approaches to study intersections are generally all greater than 3% and range up to an 8% downgrade on its northbound approach to US-41. McClellan Avenue also has a significant downgrade on its northbound approach to Baraga Avenue of nearly 9% and approaches Washington Street northbound at about a 1% downgrade. Southbound approaches are commensurate upgrades.

Michigan Route 553 (M-553) is the portion of McClellan Avenue south of US-41 that is under the jurisdiction of MDOT. It is 60' wide and operates with two lanes each direction without on-street parking. It intersects with Odovero Drive and Grove Street with Two-way stop control at Odovero intersection and All-way stop control at Grove Street. The posted speed limit on M-553 in the study area is 45 mph.

Front Street is a north-south Minor Arterial road that connects to US-41 at the east end of the US-41 bypass with a roundabout. The roundabout is two lanes at each of the three approaches. The southbound Front Street approaches US-41 with a downgrade of about 6% and includes a right turn auxiliary lane. The eastbound US-41 approach to this intersection also includes a right turn auxiliary lane for eastbound to southbound traffic.

Fisher Street is an east-west collector road that ends 300 feet west of Seventh Street. The roadway is approximately 30'wide and operates with one lane each direction without on-street parking. It is a two-way stop control at Seventh Street/Fisher Street with stop signs on Fisher. Fisher Street slopes down to its intersection with Seventh Street at about a 10% grade. The posted speed limit Fisher Street in the study area is 25 mph.

TRAFFIC VOLUMES

DLZ collected traffic volumes at the study intersections on typical weekdays in October and December, 2013 and in September 2014. These collected volumes are included in Appendix A. The traffic data was collected from 6:00 AM to 6:00 PM and included intersection turning movement counts with vehicle classification reported in 15-minute increments. Vehicles were classified as passenger cars, single unit trucks or multi-unit trucks. Pedestrian crossings and bicycle count data was also collected. Morning and afternoon peak hours were determined from an analysis of these volumes. The AM and PM peak hours were determined to be 7:15 AM to 8:15 AM and 4:30 PM to 5:30 PM, respectively. The percentage of heavy vehicles were also determined for each movement during each peak hour and were incorporated into the analysis.

For the purposes of analysis, the year 2015 was used as the baseline year to establish existing conditions. The 2013 and 2014 traffic data was normalized to the year 2015 using an annual growth rate of 0.5% per year. This growth rate was established based on population trends in the region as part of the City-Wide Traffic Study and was confirmed with the MDOT. The resulting AM and PM peak hour intersection turning movement volumes used in the capacity analysis for existing conditions are shown in Figure 3 and Figure 4. Figure 3 shows the northern portion of the study area, and Figure 4 shows the southern portion.

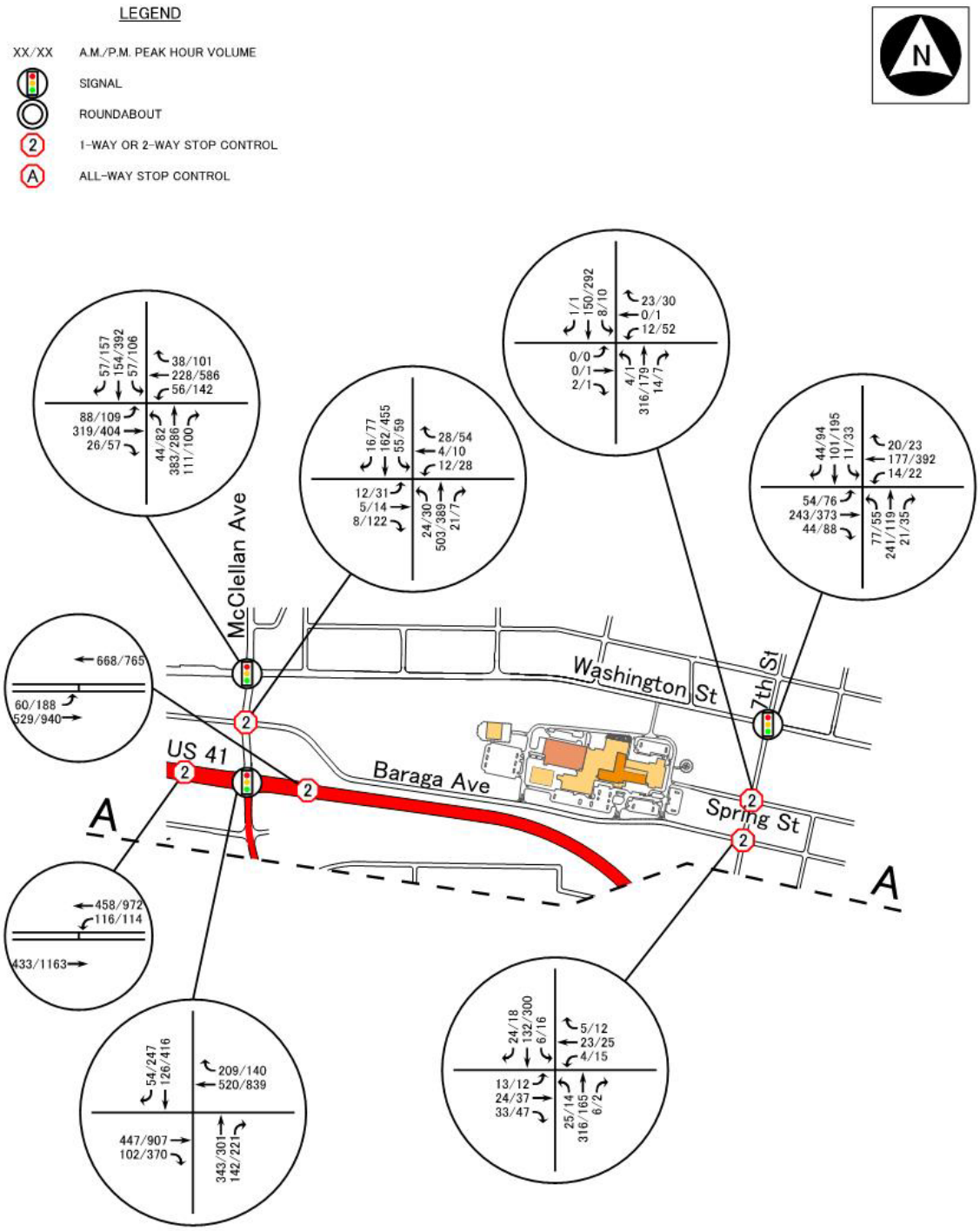


Figure 3 - 2015 Existing Conditions Traffic Volumes North

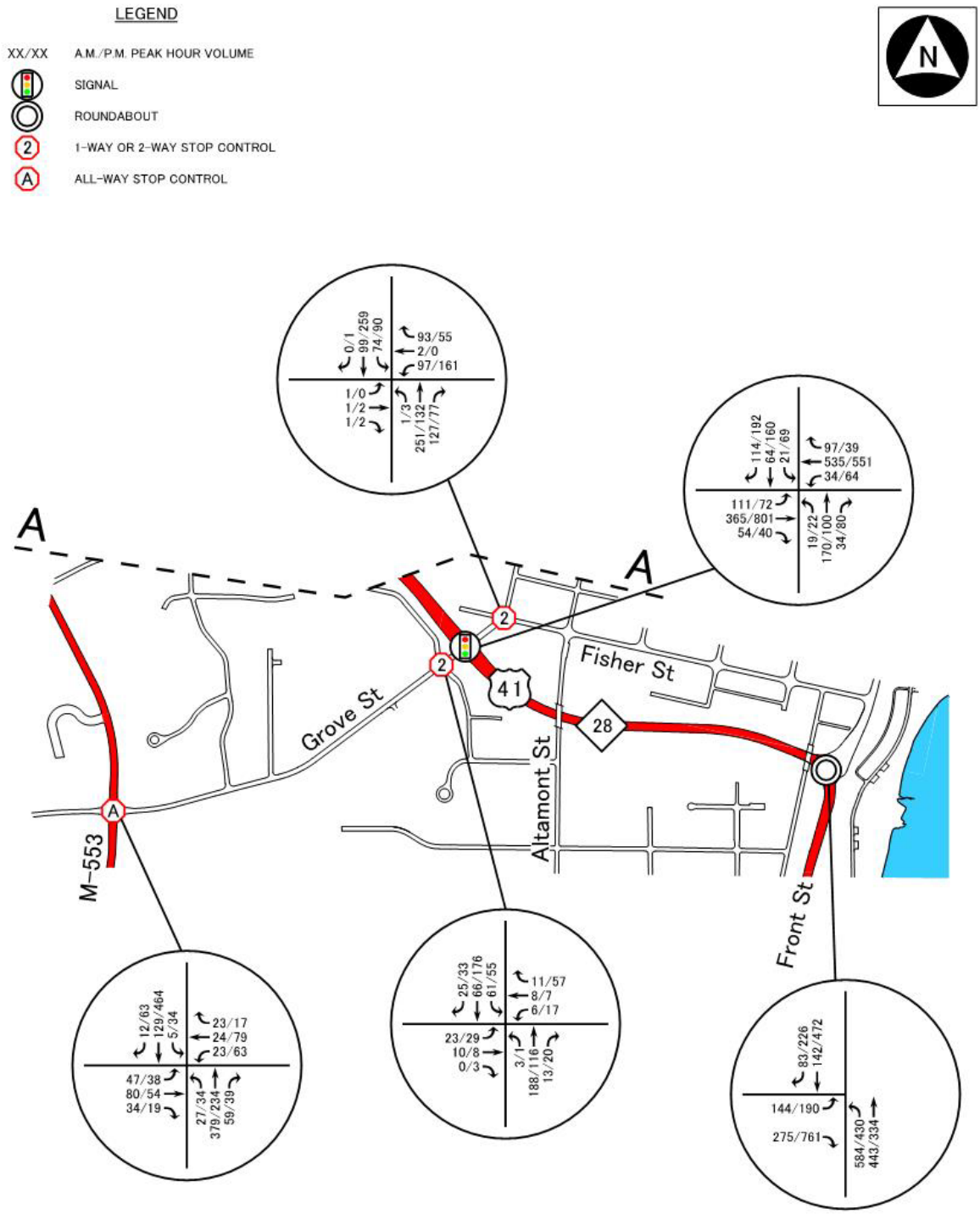


Figure 4 - 2015 Existing Conditions Traffic Volumes South

4. YEAR 2015 EXISTING CONDITIONS CAPACITY ANALYSIS

DLZ used RODEL and Synchro 9 traffic capacity analysis software to analyze the capacity of the study intersections in the current year of 2015. They Synchro model inputs included the existing lane configurations, traffic control, traffic signal timings as provided by MDOT and the City, approach grades at the intersections, the percentage of heavy trucks and peak hour factors determined from the existing traffic data. The results of the capacity analyses are tabulated below with full results included in Appendix C.

The analysis found that some movements are operating at LOS E in the AM peak hour at the intersection of US - 41 and Seventh Street/Grove Street. Additionally, the eastbound approach of Baraga Avenue at McClellan Avenue was found to experience a LOS F during the PM peak hour. All other study intersections were found to operate at acceptable levels of service during both the AM and PM peak hours. A summary of the capacity analysis results is tabulated below.

Table 2 – Existing Conditions Capacity Analysis Results (AM Peak Hour)

Signalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
US-41 & Grove / 7th Streets	E 61.2	B 12.8	B 11.3	C 34.5	B 13.9	B 12.1	D 38.2	E 74.4		D 39.6	E 57.2		C 29.6
Seventh St & Washington St	B 17.2	B 16.3		B 19.8	B 14.1		B 12.4	B 11.9		B 13.2	A 9.6		B 13.5
US-41 WB & McClellan Ave*					B 16.1	B 14.2		A 3			B 15.8	B 14.4	B 11.9
US-41 EB & McClellan Ave*		B 16.7	B 13.1					C 23.4	B 16.5		A 0.3		B 16.6
Washington St & McClellan Ave	B 14.2	B 12.2	B 12.2	B 14.3	B 11.7	B 11.8	B 17.1	B 18.3	B 18.4	C 22.2	B 15.5	B 15.6	B 15.2

Unsignalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		B 12.4			B 12.5			A 7.4			A 7.8		
US 41 & McClellan East Crossover							B 11.6						
US 41 & McClellan West Crossover										B 10.9			
Seventh St & Spring St		A 9.5			B 13.2			A 7.6			A 8.3		
Seventh St & Baraga Ave		C 15			C 16.2			A 7.7			A 8.3		
Seventh St & Fisher St		C 15.9			B 14.6		A 7.4			A 8.2			
McClellan Ave & Baraga Ave		C 22			C 17.6		A 7.7	A 0.2		A 9	A 0.2		
M-553 & Grove St	B 11.5	B 12.9		B 11.4	B 11		B 10.2	C 17.4	B 13	B 10.6	B 12	B 10.9	

Roundabout	AM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A 2.95	A 1.89			A 9.17		A 3.42	A 0.58	A 6.52

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

Table 3 – Existing Conditions Capacity Analysis Results (PM Peak Hour)

Signalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
US-41 & Grove / 7th Streets	D 47.6	C 21.6	B 15.8	D 51.7	B 19.4	B 15.8	D 38.7	C 25.4		C 29.1	D 53.7		C 29.4
Seventh St & Washington St	C 21.1	B 17		C 22.3	B 14.6		B 19.6	B 13.5		B 15	B 16.3		B 16.1
US-41 WB & McClellan Ave*					B 18.9	B 13.7		A 2.1			C 21.2	B 18	B 16.0
US-41 EB & McClellan Ave*		B 19.1	B 15.1					C 21.5	B 19		A 0.9		B 15.4
Washington St & McClellan Ave	C 23.7	B 13.3	B 13.3	B 19.7	B 15.4	B 15.4	C 25.1	B 16.7	B 16.9	C 22	B 18.9	B 19.1	B 17.2

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		B 13.3			B 11.8			A 7.9			A 7.6		
US 41 & McClellan East Crossover							B 14.9						
US 41 & McClellan West Crossover										C 17.4			
Seventh St & Spring St		B 11.9			C 18.3			A 8			A 7.7		
Seventh St & Baraga Ave		C 18.4			C 19.5			A 8.4			A 7.7		
Seventh St & Fisher St		B 14.6			C 16.9		A 8			A 7.7			
McClellan Ave & Baraga Ave		F 50.1			D 27.5		A 8.9	A 0.2		A 8.4	A 0.3		
M-553 & Grove St	B 13.6	B 13.3		B 14.1	B 14.8		B 12	C 16.2	B 13.7	B 11.3	D 26.5	C 16.6	

Roundabout	PM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A 3.79	A 3.64			A 7.62		A 5.35	A 1.58	A 5.05

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

5. PROPOSED DEVELOPMENT

Duke Lifepoint Healthcare is proposing to relocate Marquette General Hospital from its existing location to the proposed site on Baraga Avenue west of Seventh Street. The current development program for the hospital includes 665,000 square feet of hospital use, 218,000 square feet of clinical services and a 195,000 square-foot medical office building. The site will also include a helipad near the proposed emergency department and approximately 980 parking spaces in both surface and garage parking. The project is expected to be completed in total and open in the year 2018. For the purposes of the traffic analysis, the development was not assumed to be opened in phases. Full build-out on opening day was assumed in the analyses presented in this report.

The site is proposed to have access from US-41 via a new access point as well as additional access from Baraga Avenue, Spring Street and Washington Street. The proposed site plan is included below in Figure 5.

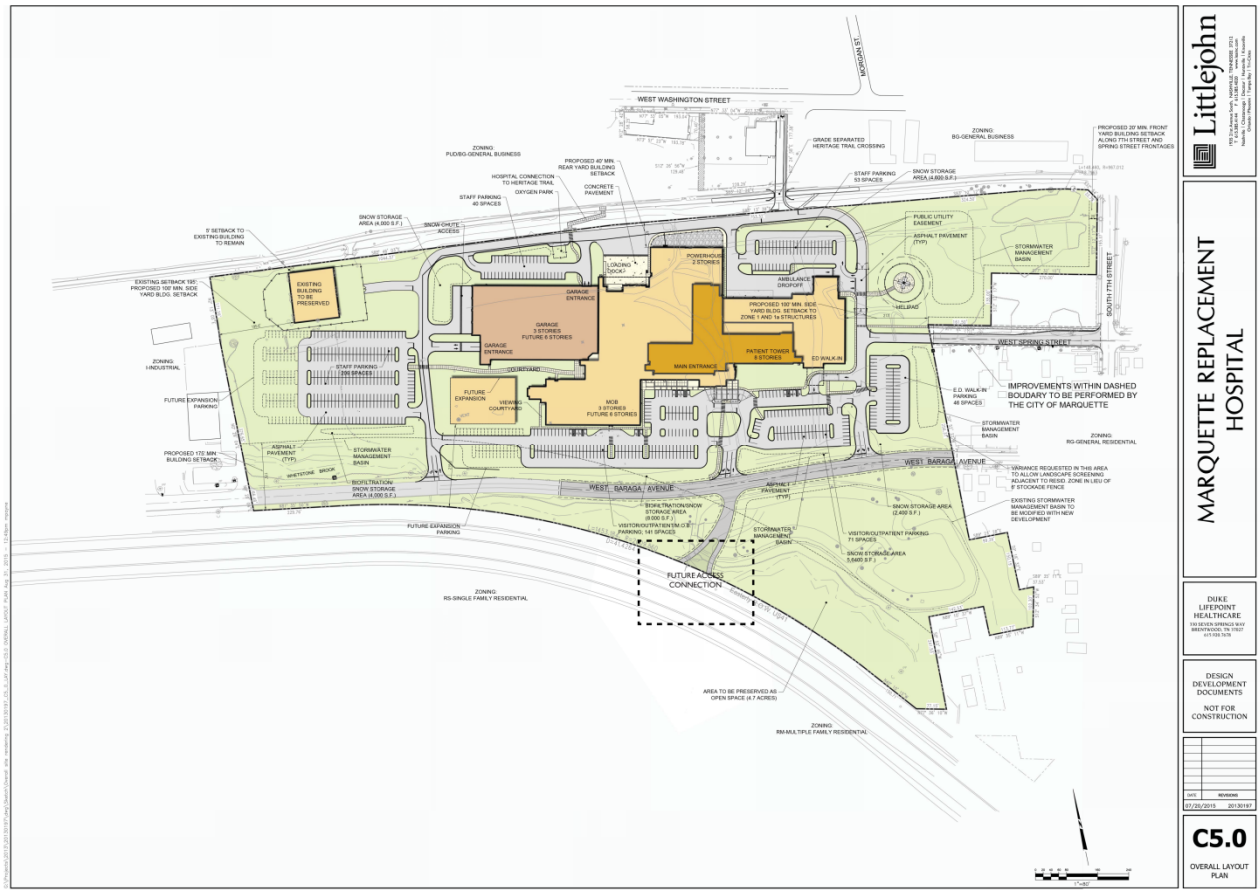


Figure 5 - Marquette General Hospital Site Plan

TRIP GENERATION

DLP's consultant, Littlejohn, conducted an analysis of the vehicle trips that are anticipated to be generated by the proposed development as well as the anticipated distribution of this traffic to each of the site's proposed access points. Littlejohn's memorandum summarizing this analysis is included in Appendix D. The forecasted trip generation and project trip distribution are shown in the below tables.

Table 4 - Summary of Trip Generation (provided by DLP)

Land Use	ITE Code	Intensity (KSF)	Daily Trip Ends	AM Peak Period					PM Peak Period				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Hospital	610	665	8,791	632	63%	398	37%	234	618	38%	235	62%	383
Clinic	630	218	6,856	-	-	-	-	-	1129	28%	316	72%	813
Medical Office	720	195	7,759	466	79%	368	21%	98	696	28%	195	72%	501
Total			23,406	1,098		766		332	2,443		746		1,697

In addition to the trip generation provided by DLP, DLZ requested information on shift changes that occur at the hospital. MGH officials indicated that peak shift change times typically occur between 7:00 and 9:00 AM, 3:00 to 4:00 PM and between 11:00 PM and midnight. MGH officials further indicated that the morning and afternoon shift changes involve about 200 employees arriving and 200 employees leaving and that the morning shift change is spread over the two hour window. The late night shift change affects a total of about 80 employees. This additional information confirmed the adequacy of the trip generation forecasts provided by DLP. The total of 400 employee trips associated with the hospital do not all occur within the AM Peak Traffic Hour and are accounted for in the estimated 632 trips shown in Table 4. The PM shift change does not correspond with the PM Peak Traffic Hour.

Table 5 - Project Trip Distribution for No Build Scenarios

Access	Distribution		AM In	AM Out	PM In	PM Out
	In	Out				
Main Access	55%	22%	421	73	410	374
Baraga East Access	10%	4%	77	13	75	68
Baraga West Access	10%	68%	77	226	75	1155
Spring Street	15%	2%	115	7	112	34
Washington Street	10%	4%	77	13	75	68
Total	**100%**	**100%**	**766**	**332**	**746**	**1698**

The inbound trip distribution shown in Table 5 was provided by DLP and used for the No Build scenarios. While the trip distribution provided by DLP was intended for both inbound and outbound trips, it assumed

some anticipated roadway improvements that ultimately became part of the Preferred Alternative discussed later in this report but which are not present in No Build scenarios. Therefore, DLZ determined a different outbound trip distribution for the No Build scenarios based on the existing local and regional roadway network, site access points and their relation to proposed on-site parking. These calculations are shown in Appendix B and resulting site volumes are shown in Figure 6 and Figure 7.

6. OPENING YEAR 2018 NO BUILD ANALYSIS

DLZ conducted an analysis of the future opening year of the proposed hospital on the existing roadway network.

The intersection of M-553 and Grove Street is currently controlled by an all-way stop. MDOT has plans to install a traffic signal at this intersection by 2018. All future scenarios within this traffic study assume that the traffic signal will be built and operational according to that schedule. For the purposes of these analyses, the signal was assumed to operate as two phases with permissive left turns only. This study does not make any recommendations as to the configuration or operations of the proposed traffic signal as it was assumed that MDOT will design and implement the signal to accommodate expected future traffic volumes as needed.

TRAFFIC VOLUMES

Site traffic volumes were assigned to the existing roadway network based on the trip generation analysis, proposed site access points, the local and regional roadway network and existing traffic patterns. The resulting turning movement volumes at each of the study intersections associated with the proposed development are illustrated in Figure 6 and Figure 7.

BACKGROUND TRAFFIC GROWTH

MDOT provided forecasted turning movement volumes for the AM and PM peak hours at the study intersections along US-41 for the opening and design years of 2018 and 2038. DLZ forecasted opening and design year traffic volumes at the remaining study intersections based on year 2015 AM and PM peak hour traffic volumes using the established growth rate of 0.5% per year. The resulting volumes were balanced between intersections as needed to address any discrepancies with the forecasted volumes provided by MDOT, holding the MDOT forecasts as controlling. The site traffic volumes shown in Figure 6 and Figure 7 were added to these volumes. The resulting volumes used in the Opening Year (2018) Build Analysis on the existing roadway network are shown in Figure 8 and Figure 9.

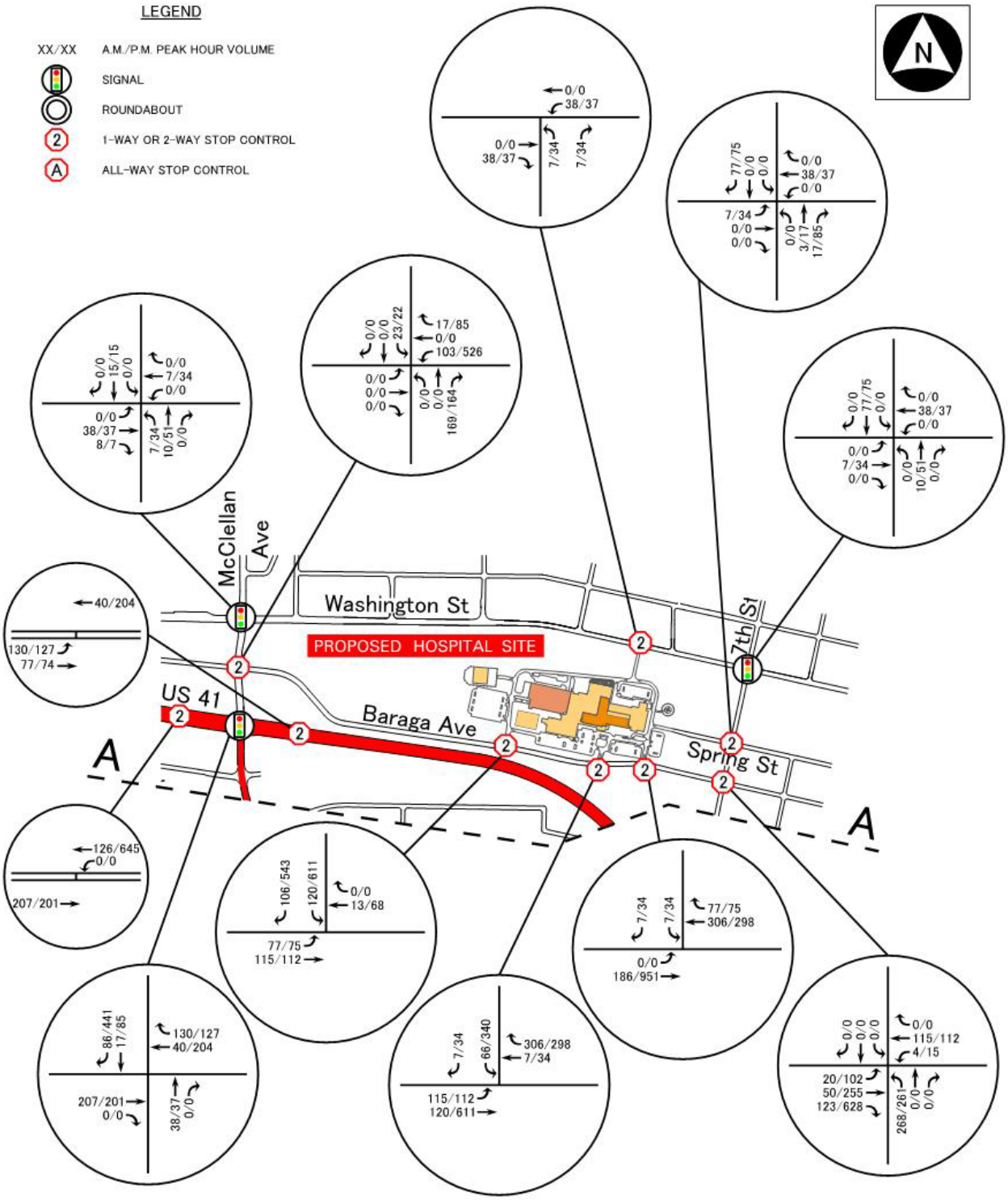


Figure 6 – Hospital Site Traffic Volumes for No Build Scenarios (Existing Roadway Network) North

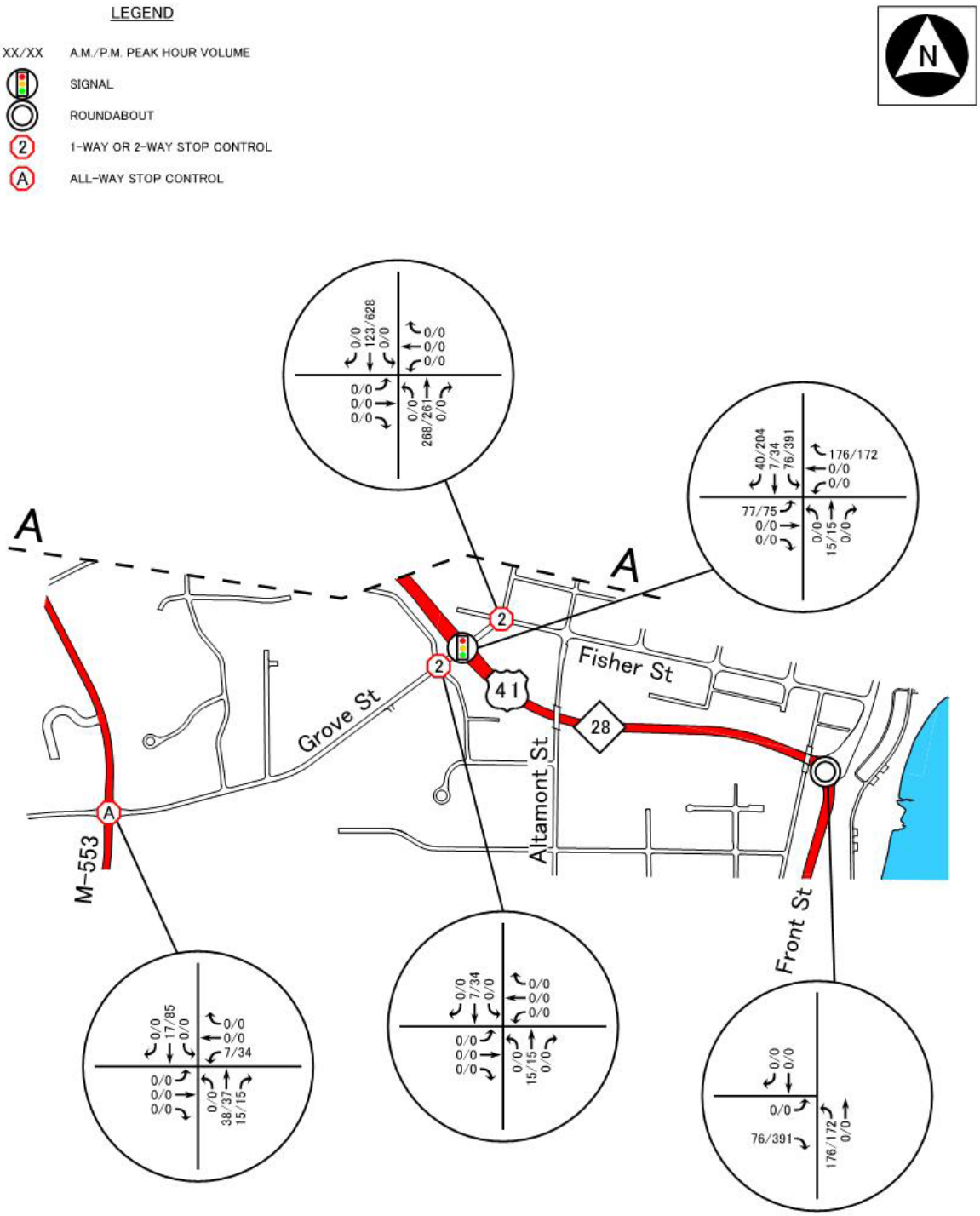


Figure 7 – Hospital Site Traffic Volumes for No Build Scenarios (Existing Roadway Network) South

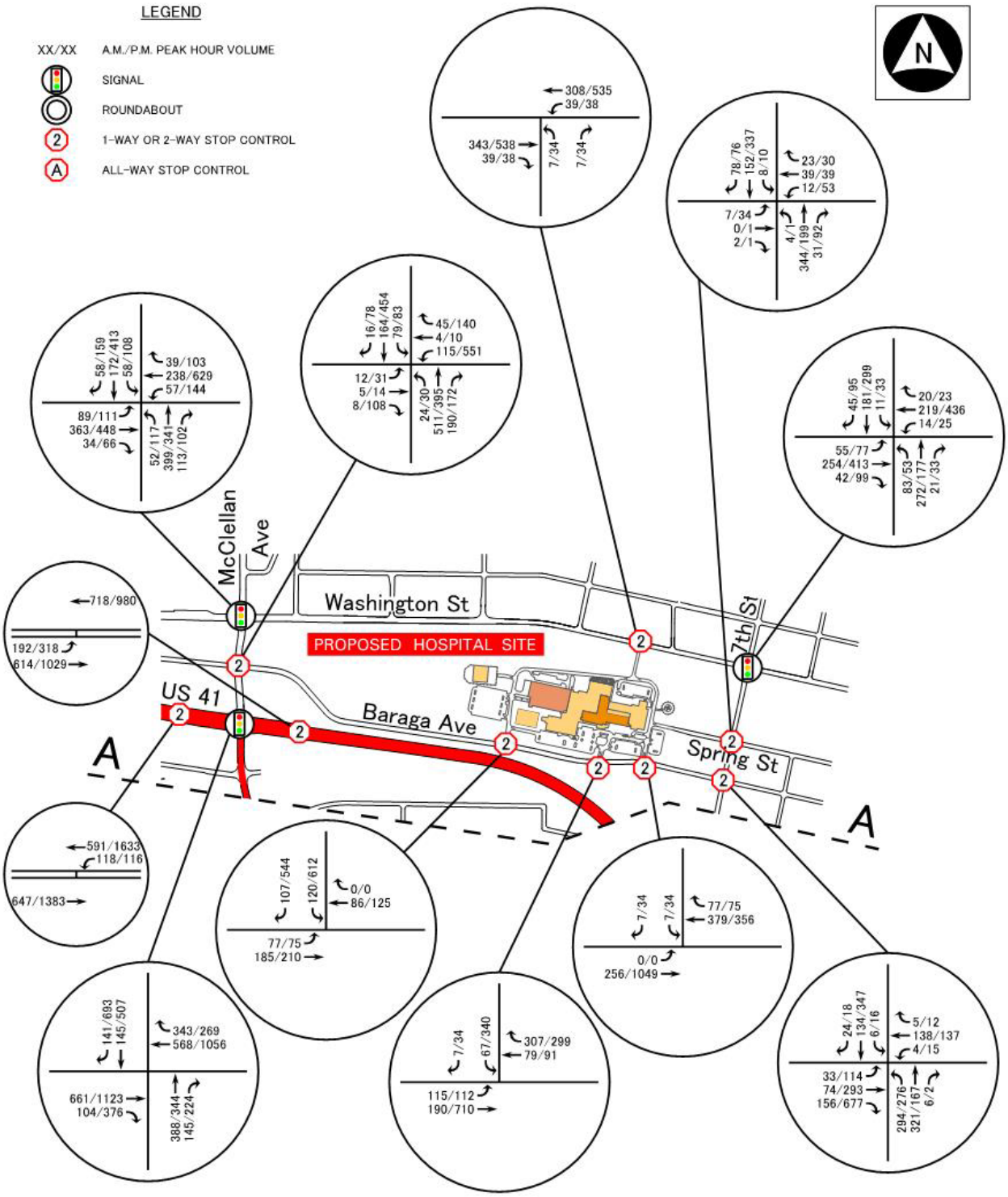


Figure 8 - Opening Year 2018 No Build Analysis Traffic Volumes North

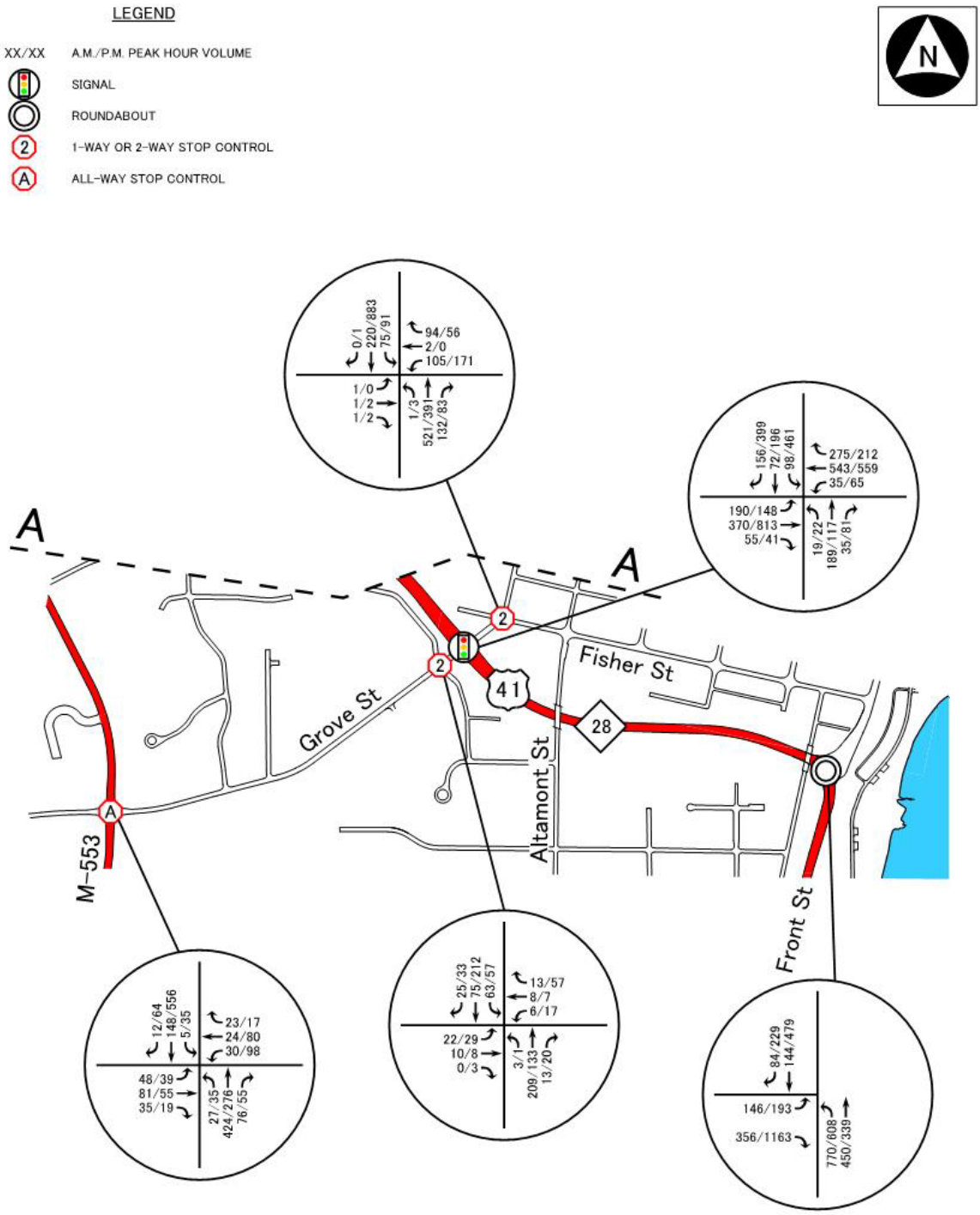


Figure 9 - Opening Year 2018 No Build Analysis Traffic Volumes South

CAPACITY ANALYSIS

The results of the opening year 2018 capacity analyses are tabulated below in Table 6 and Table 7. In general, the existing roadway network in the vicinity of the proposed development is not expected to be able to accommodate traffic associated with the development without significant improvements. The analysis found that the following study intersections would experience unacceptable levels of service:

- US-41 and Seventh Street/Grove Street
- Grove Street and Homestead/Anderson Street
- Seventh Street and Fisher Street
- Seventh Street and Baraga Avenue
- Seventh Street and Spring Street
- Baraga Avenue and McClellan Avenue

To address these concerns, DLZ along with the City engaged in an alternatives analysis (working with MDOT and DLP as well as soliciting input and feedback from the public) to vet various alternative improvement plans to accommodate the relocated hospital. This process is discussed in the following section.

Table 6 - Opening Year 2018 No Build Capacity Analysis Results (AM Peak Hour)

Signalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
US-41 & Grove / 7th Streets	F 233.5	A 9.5	A 8.4	D 45.1	B 13.9	B 15.9	D 40.6	F 116.5		F 166.8	F 157.2		E 69.4
M-553 & Grove St	B 19.3	B 19.5		C 21.5	B 17.6		B 11.6	B 13.5	B 13.5	B 15.5	B 10.6	B 10.6	B 14.6
Seventh St & Washington St	B 18.4	B 16.2		B 19.8	B 14.6		B 16.4	B 13.3		B 14.8	B 11.6		B 14.4
US-41 WB & McClellan Ave*					B 17	B 17.6		A 3.7			B 16.2	B 15.7	B 13.4
US-41 EB & McClellan Ave*		C 20.2	B 13.1					B 18.5	A 9.4		A 0.3		B 16.5
Washington St & McClellan Ave	B 14.4	B 12.6	B 12.6	B 14.9	B 11.8	B 11.8	B 17.6	B 18.5	B 18.6	C 22.6	B 15.6	B 15.7	B 15.4

Unsignalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		B 12.8			B 12.8			A 7.4			A 7.9		
US-41 & McClellan East Crossover							B 14.5						
US-41 & McClellan West Crossover										B 12.3			
Seventh St & Spring St		C 21.8			C 22.5			A 8.4			A 8.6		
Seventh St & Baraga Ave		F **			F **		A 8.8			A 8.3			
Seventh St & Fisher St		D 25.6			F 650		A 7.7	A 0		B 10.4			
McClellan Ave & Baraga Ave	D 32.9	D 27.9		F 375	B 14.8		A 7.7	A 0.2		B 10.5	A 0.4		
Baraga Ave & Main Drive	A 8.6	A 0									C 19.4		
Baraga Ave & East Drive	A 0									C 15.3		B 11.2	
Baraga Ave & West Drive	A 7.5	A 0								B 13.5		A 9.2	

Unsignalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
North Drive & Washington St				A			B						
				8.3			12						

Roundabout	AM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A	A			B		A	A	A
	2.96	2.23			10.26		3.79	0.59	7.35

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

** Volumes exceed the computational capacity of the methodology

Table 7 - Opening Year 2018 No Build Capacity Analysis Results (PM Peak Hour)

Signalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
US-41 & Grove / 7th Streets	F 143	C 20.4	B 14.9	D 52.1	B 19.3	C 20.1	D 41.3	C 26.1		F 533.3	F 384.6		F 185.6
M-553 & Grove St	C 20.5	B 17.2		C 21.1	B 18		B 17.2	B 12.3	B 12.3	B 14	B 13.9	B 13.9	B 15.1
Seventh St & Washington St	C 22.2	B 15.4		C 20.8	B 14.9		C 23.9	B 15.8		B 17.8	B 19.8		B 16.9
US-41 WB & McClellan Ave*					C 22.4	B 15.2		A 2.5			C 24.6	F 115	D 42.1
US-41 EB & McClellan Ave*		C 22.5	B 15.7					C 20.6	B 15.7		A 1.1		B 16.5
Washington St & McClellan Ave	C 25.4	B 13.8	B 13.9	C 22.8	B 15.8	B 15.9	C 31.5	B 17.3	B 17.4	C 23.5	C 20.1	C 20.3	B 18.4

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		B 14			B 12.2			A 7.8			A 7.7		
US-41 & McClellan East Crossover							D 30						
US-41 & McClellan West Crossover										C 21.3			
Seventh St & Spring St		F 95.6			F 174.2			A 8.8			A 8.3		
Seventh St & Baraga Ave		F **			F **		B 10.9			A 7.7			
Seventh St & Fisher St							B 11.4	A 0		A 8.8			
McClellan Ave & Baraga Ave	F 70.4	C 21.7		F 1947	B 14.7		A 9.1	A 0.2		A 9.1	A 0.5		
Baraga Ave & Main Drive	A 8.6	A 0									F 1017.9		
Baraga Ave & East Drive	A 0									F 58.3	B 11.3		
Baraga Ave & West Drive	A 7.6	A 0								F 177.8	C 15.7		

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
North Drive & Washington St				A			C						
				9			16.7						

Roundabout	PM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A	A			A		A	A	A
	5.36	5.31			8.17		5.84	1.6	6.02

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

** Volumes exceed the computational capacity of the methodology

7. ROADWAY IMPROVEMENT ALTERNATIVES ANALYSIS

Four roadway and access improvement alternatives were developed through coordination with the City, MDOT, DLP and members of the public. These alternatives were developed in anticipation of the hospital's traffic and access needs and were refined through analyses presented in a Preliminary Traffic Impact Study Report dated January 6, 2016. This Alternatives Analysis followed the below series of events.

Table 8 - Alternatives Analysis Process Timeline

Public Information Meeting	September 17, 2015
Draft Alternatives Definitions (Narrative) submitted for review	September 25, 2015
Agreement on Alternatives Definition (Narrative)	October 13, 2015
Draft Concept Design Drawings submitted for review	December 2, 2015
Review comments from City/MDOT for Concept Design Drawings	December 18, 2015
Revised Concept Design Drawings submitted for approval	January 6, 2016
Draft Traffic Analysis Information submitted for review	January 6, 2016
City Commission and Public Information Meetings	February 24-25, 2016
Approval of Preferred Alternative (City Commission/MDOT)	March 17, 2016

Of the four alternatives developed and studies, Alternative 2 was chosen as the Preferred Alternative and includes the following main components:

- Main Hospital Entrance Connection to US-41 with a Roundabout Intersection;
- The existing intersection of US - 41 with Grove/Seventh Streets is converted to a roundabout intersection;
- The proposed intersection of Baraga Avenue with the Main Hospital Entrance is proposed as a compact urban roundabout with two northbound lanes for traffic entering the site from US-41;
- The westbound approach of Baraga Avenue at McClellan Avenue is restricted to prohibit left turns and through traffic and allow right turns only. All other movements at this intersection will continue to be permitted and the intersection will continue to operate as stop controlled on Baraga Avenue approaches and free flow on McClellan Avenue;
- McClellan Avenue is widened to provide northbound and southbound left turn lanes at Baraga Avenue and to lengthen the northbound left turn lane at Washington Street;
- The existing traffic signal at the intersection of McClellan Avenue and Washington Street is modified to provide permitted/protected left turn phasing;

- Seventh Street is widened to provide a center left turn lane from north of Spring Street to Fisher Street and left turn lanes are provided on the Baraga Avenue and Spring Street minor leg approaches to Seventh Street.
- Non-motorized facilities will be constructed alongside and as part of the above roadway improvements to accommodate pedestrians and bicycles consistent with City and MDOT plans and requirements.

The Preferred Alternative was carried forward in these analyses to assess anticipated future operations for both the opening day and design year scenarios with the completion of the Hospital development. An illustration of the Preferred Alternative is included in Figure 1.

8. OPENING YEAR 2018 BUILD ANALYSIS

The proposed hospital development is planned to be complete in 2018. DLZ used the forecasted trip generation and site access distribution above to analyze the operations of the Preferred Alternative for the opening year scenario in 2018.

TRIP DISTRIBUTION

The vehicle trips expected to be associated with the site as shown in Table 4 were distributed onto the proposed roadway network of the Preferred Alternative according to the site access distribution shown in Table 5. Trips were further distributed onto the Preferred Alternative roadway network based on existing traffic patterns during the AM and PM peak hours as well as the site access traffic patterns expected with the proposed additional access point on US-41. The resulting turning movement volumes were assigned to the study intersections. These site related traffic volumes are illustrated in Figure 10 and Figure 11.

Table 9 - Project Trip Distribution for Build Scenarios (provided by DLP)

Access	Distribution In & Out	AM In	AM Out	PM In	PM Out
Main Access	55%	383	166	373	849
Baraga East Access	10%	115	50	112	255
Baraga West Access	10%	77	33	75	170
Spring Street	15%	115	50	112	255
Washington Street	10%	77	33	75	170
Total	**100%**	**766**	**332**	**746**	**1698**

The trip distribution to the site driveways provided by DLP was utilized for both inbound and outbound site traffic for the Build scenarios.

TRAFFIC VOLUMES

MDOT provided forecasted turning movement volumes for the AM and PM peak hours at the study intersections along US-41 for the opening and design years of 2018 and 2038. DLZ forecasted design year 2018 traffic volumes at the remaining study intersections based on year 2015 AM and PM peak hour traffic volumes using the established growth rate of 0.5% per year. The resulting volumes were balanced between intersections as needed to address any discrepancies with the forecasted volumes provided by MDOT.

Forecasted site trips were added to the 2018 background traffic volumes to arrive at the Opening Year 2018 Build Analysis volumes used in the AM and PM peak hour capacity analyses and shown in Figure 12 and Figure 13.

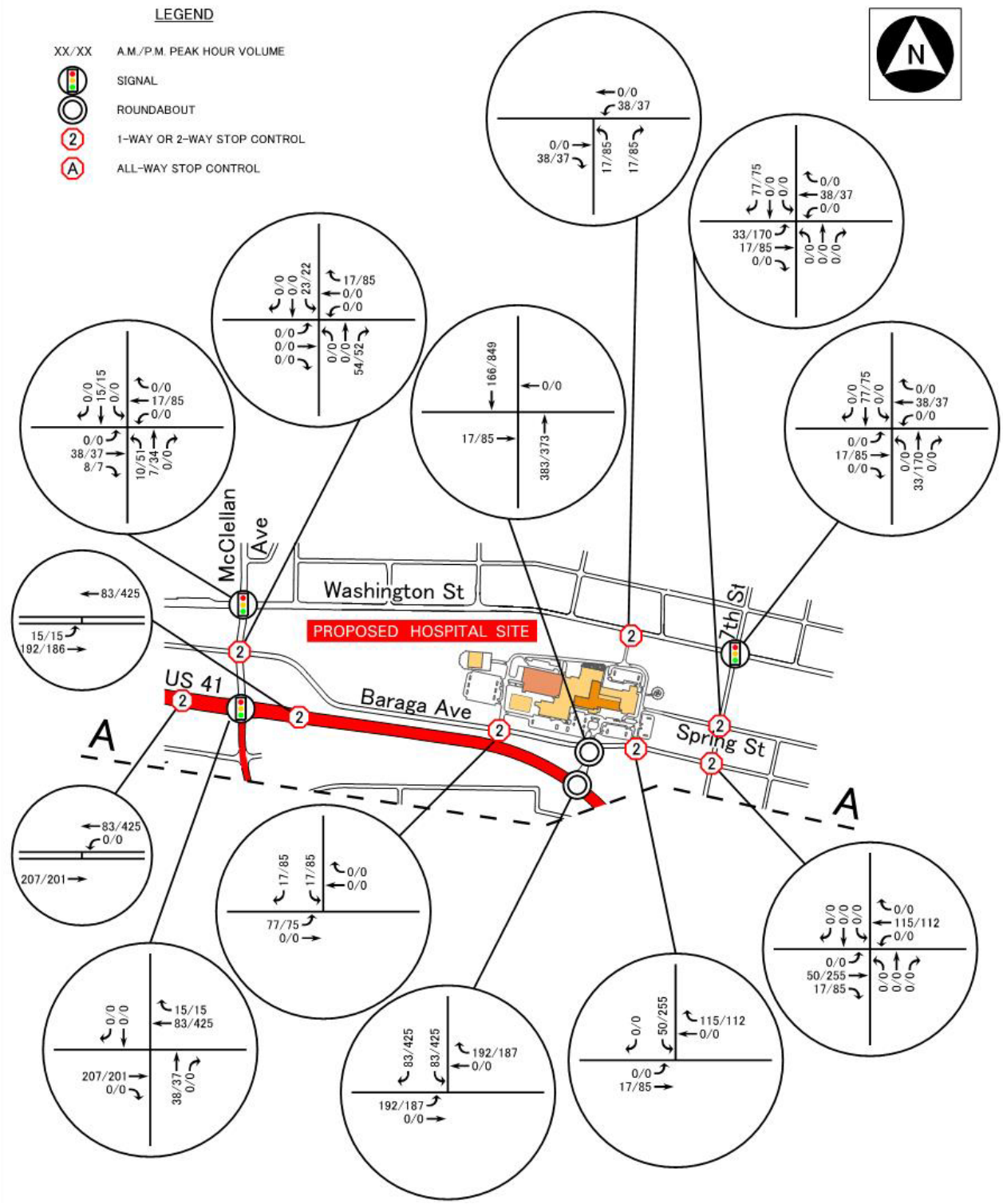


Figure 10 – Hospital Site Traffic Volumes for Build Scenarios (Preferred Alternative) North

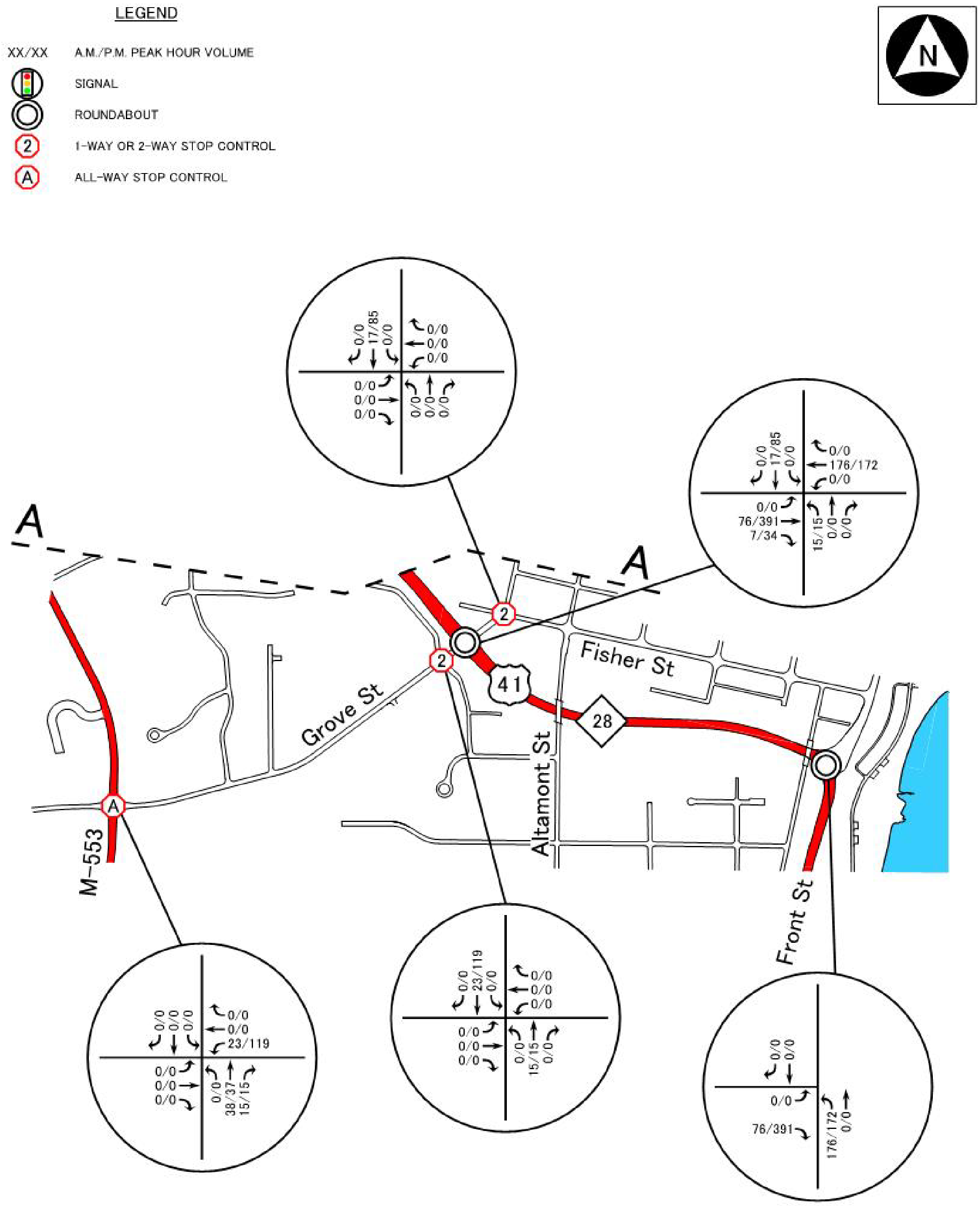


Figure 11 – Hospital Site Traffic Volumes for Build Scenarios (Preferred Alternative) South

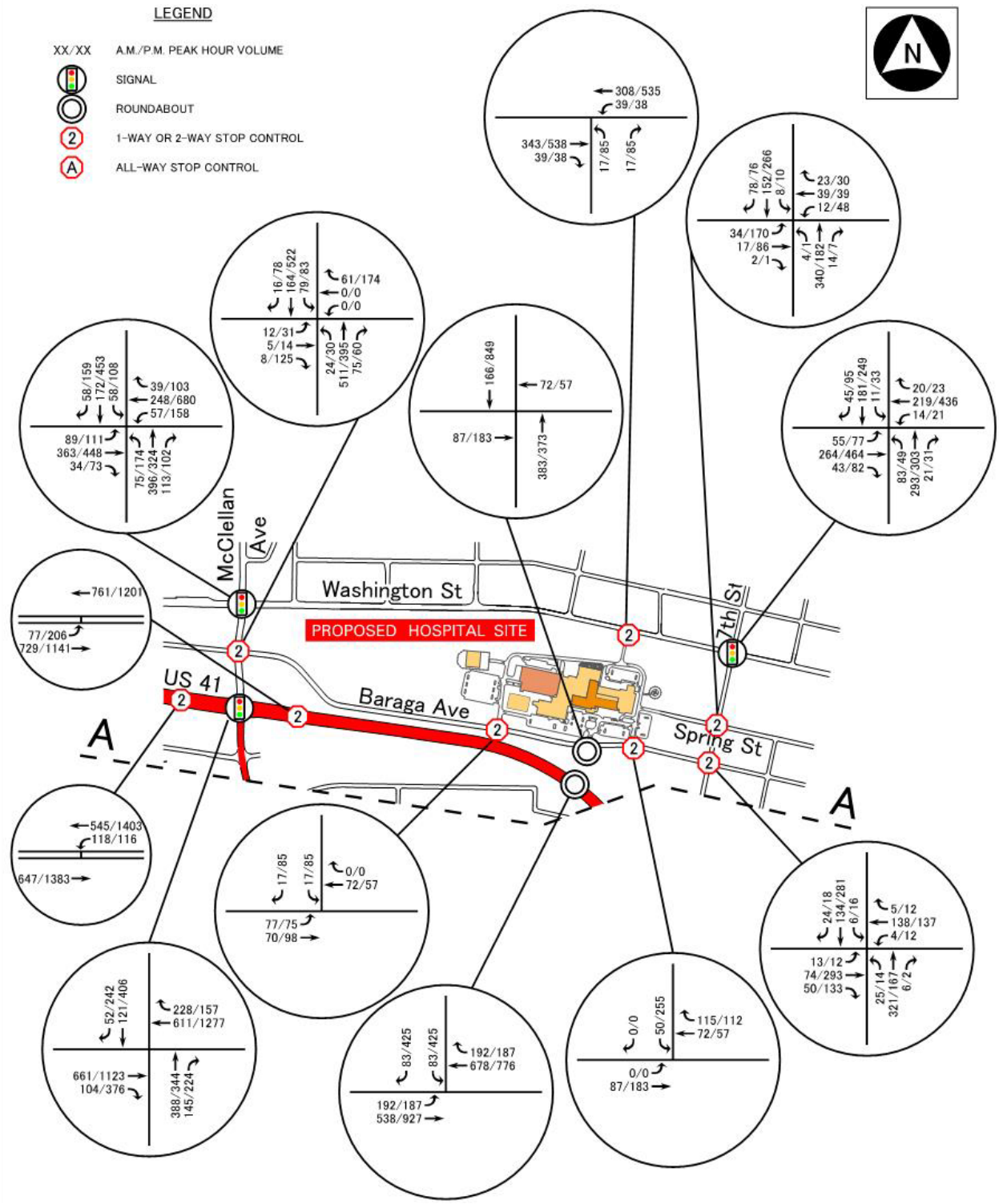


Figure 12 - Opening Year 2018 Build Analysis Traffic Volumes North

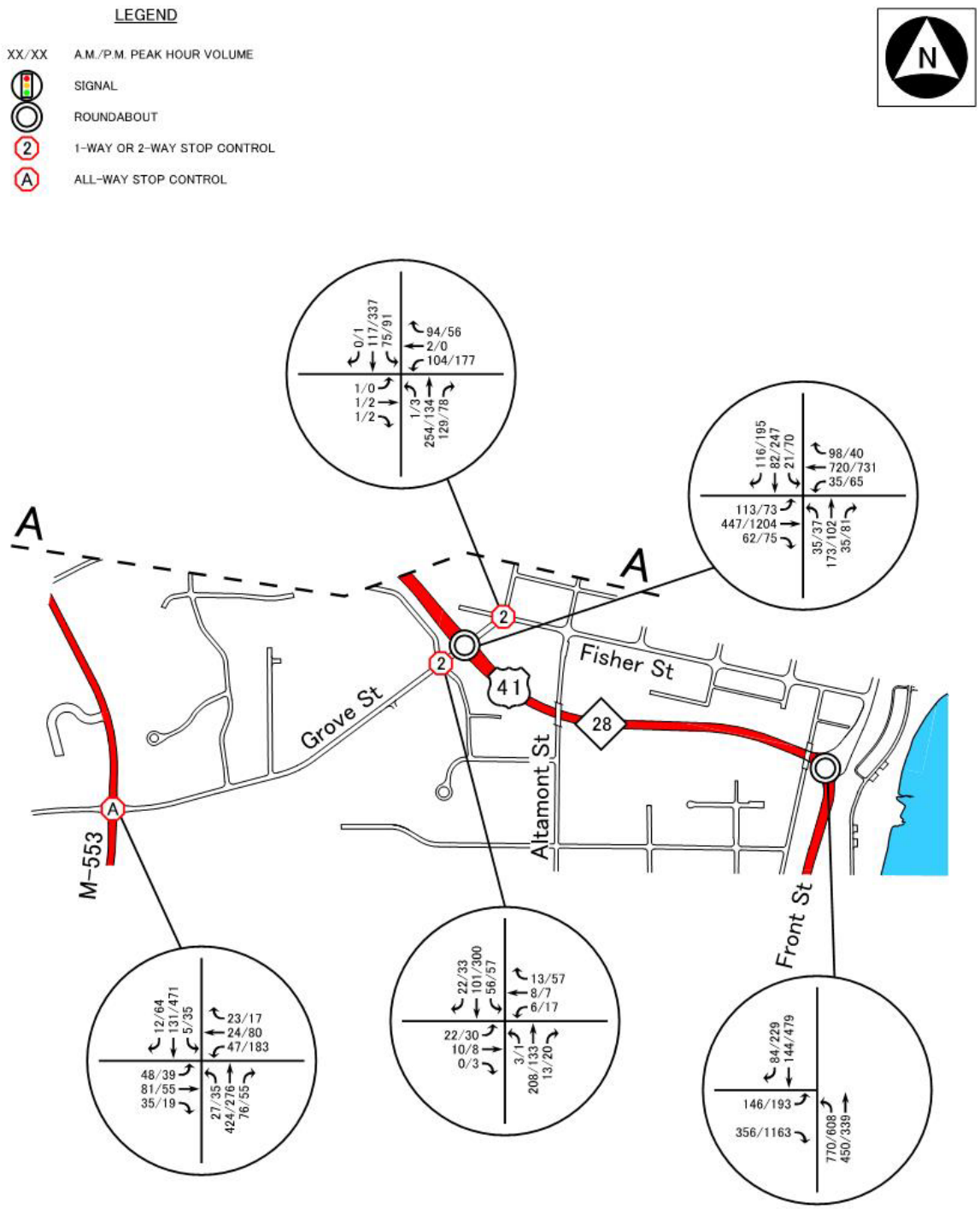


Figure 13 - Opening Year 2018 Build Analysis Traffic Volumes South

CAPACITY ANALYSIS RESULTS

DLZ utilized Synchro 9 and RODEL capacity analysis software to assess the study intersections in the opening year of 2018. The analysis found that with the improvements proposed to be constructed as part of the Preferred Alternative, all movements at the study intersections are expected to operate at acceptable levels of service in the both the AM and PM peak hours of the opening year of the development with the following exceptions.

- The minor leg eastbound approaches of Spring Street at Seventh Street operate at unacceptable Levels of Service in the AM and PM peak hours.
- The minor leg approaches of Baraga Avenue at Seventh Street operate at unacceptable Levels of Service in the AM and PM peak hours.
- The westbound approach of Fisher Street at Seventh Street will operate at unacceptable Levels of Service in the AM and PM peak hours.
- The eastbound approach of Baraga Avenue at McClellan Avenue will continue to operate at an unacceptable LOS during the PM peak hour as it does currently.

Detailed discussion of key intersections and their expected future operations is included in the Design Year 2038 Build Capacity Analysis section of this report. The Design Year Analysis controlled the recommendations for proposed roadway improvements.

Table 10 - Opening Year 2018 Build Capacity Analysis Results (AM Peak Hour)

Signalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Seventh St & Washington St	B 18.1	B 16.2		C 20.1	B 14.4		B 16.6	B 14.3		B 15.9	B 11.8		B 14.7
M-553 & Grove St	B 18.5	B 18.7		C 20.7	B 16.9		B 12.1	B 14	B 14.1	B 16.1	B 11.1	B 11.1	B 14.8
US-41 WB and McClellan Ave*					B 17	B 15		A 6.2			B 17	C 24	B 13.7
US-41 EB and McClellan Ave*		C 20.2	B 13.1					B 18	A 8.8		A 3.4		B 16.5
Washington St & McClellan Ave	B 19.2	C 27.3	C 27.3	B 19.4	C 26.3	C 26.4	B 14.9	C 26.8	C 27	B 15.3	B 19.2	B 19.4	C 24.3

Unsignalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		B 12.9			B 12.8			A 7.5			A 7.8		
US-41 & McClellan East Crossover							B 12.5						
US-41 & McClellan West Crossover										B 12.3			
Seventh St & Spring St	E 37.2	C 20.2		C 20.9	C 19		A 8.4			A 8.4			
Seventh St & Baraga Ave	E 44.9	C 23.6		D 29.2	E 41.8		A 7.9			A 8.3			
Seventh St & Fisher St		B 13.3			E 40.1		A 7.5	A 0		A 8.2			
McClellan Ave & Baraga Ave	D 28.4	C 20.8			B 10.9		A 7.7			A 9.6			
Baraga Ave & East Drive	A 0									B 10.3		A 0	
Baraga Ave & West Drive	A 7.5	A 0								B 10.6		A 8.7	
North Drive & Washington St				A 8.3				B 12.3					

Roundabout	AM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A 2.96	A 2.23			B 10.26		A 3.79	A 0.59	A 7.35
US-41 & Grove / 7th St	A 5.13		A 6.49		A 7.04		A 4.35	A 4.39	A 5.89
US-41 & Main Drive	A 6.48		A 6.13				A 3.96	A 3.73	A 6.06
Baraga Ave & Main Drive	A 4.5		A 4.61		A 4.03		A 3.43		A 4.01

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

Table 11 - Opening Year 2018 Build Capacity Analysis Results (PM Peak Hour)

Signalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Seventh St & Washington St	C 23.5	C 25		C 28.7	B 15.5		D 37.8	C 29		C 32.4	C 29		C 24.9
M-553 & Grove St	B 15.3	B 13.5		B 19.3	B 13.8		C 24.3	B 16.5	B 16.6	C 20.6	B 19.2	B 19.2	B 18.0
US-41 WB and McClellan Ave*					D 42.6	B 13.8		A 9.1			C 24.8	C 21.4	C 29.4
US-41 EB and McClellan Ave*		C 20.5	B 14.2					C 30	C 22.9		A 1.2		B 18.1
Washington St & McClellan Ave	C 24	C 30.3	C 30.4	C 20.2	D 36.1	D 36.1	C 23.8	C 27.9	C 28.1	B 19.7	C 32.1	C 32.6	C 30.4

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		C 15.5			B 13.1			A 8			A 7.7		
US-41 & McClellan East Crossover							C 24.9						
US-41 & McClellan West Crossover										C 21.3			
Seventh St & Spring St	F 140.0	D 28.5		D 34.3	C 15.7		A 8.9			A 7.8			
Seventh St & Baraga Ave	E 43	F 453.6			E 38.7		A 8.4			A 7.8			
Seventh St & Fisher St		B 12.9			F 254.8		A 8.1	A 0		A 7.9			
McClellan Ave & Baraga Ave	F 193	F 82.0			B 11.3		A 9.3			A 9			
Baraga Ave & East Drive	A 0									B 14.6		A 0	
Baraga Ave & West Drive	A 7.7	A 0								B 11.3		A 9.9	
North Drive & Washington St				A 9				C 22.9					

Roundabout	PM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A 5.36	A 5.31			A 8.17		A 5.87	A 1.6	A 6.02
US-41 & Grove / 7th St	B 10.2		A 5.86		B 10.43		A 6.88	A 5.46	A 8.3
US-41 & Main Drive	B 10.51		A 6.43				A 7.9	A 7.39	A 8.34
Baraga Ave & Main Drive	A 7.99		A 4.37		A 4.2		A 7.96		A 6.86

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

9. DESIGN YEAR 2038 BACKGROUND ANALYSIS

DLZ conducted an analysis of the future design year assuming only background traffic growth on the existing roadway network.

BACKGROUND TRAFFIC GROWTH

MDOT provided forecasted turning movement volumes for the AM and PM peak hours at the study intersections along US-41 for the opening and design years of 2018 and 2038. DLZ forecasted opening and design year traffic volumes at the remaining study intersections based on year 2015 AM and PM peak hour traffic volumes using the established growth rate of 0.5% per year. The resulting volumes were balanced between intersections as needed to address any discrepancies with the forecasted volumes provided by MDOT, holding the MDOT forecasts as controlling. The resulting volumes used in the Design Year (2038) Background Analysis on the existing roadway network are shown in Figure 14 and Figure 15.

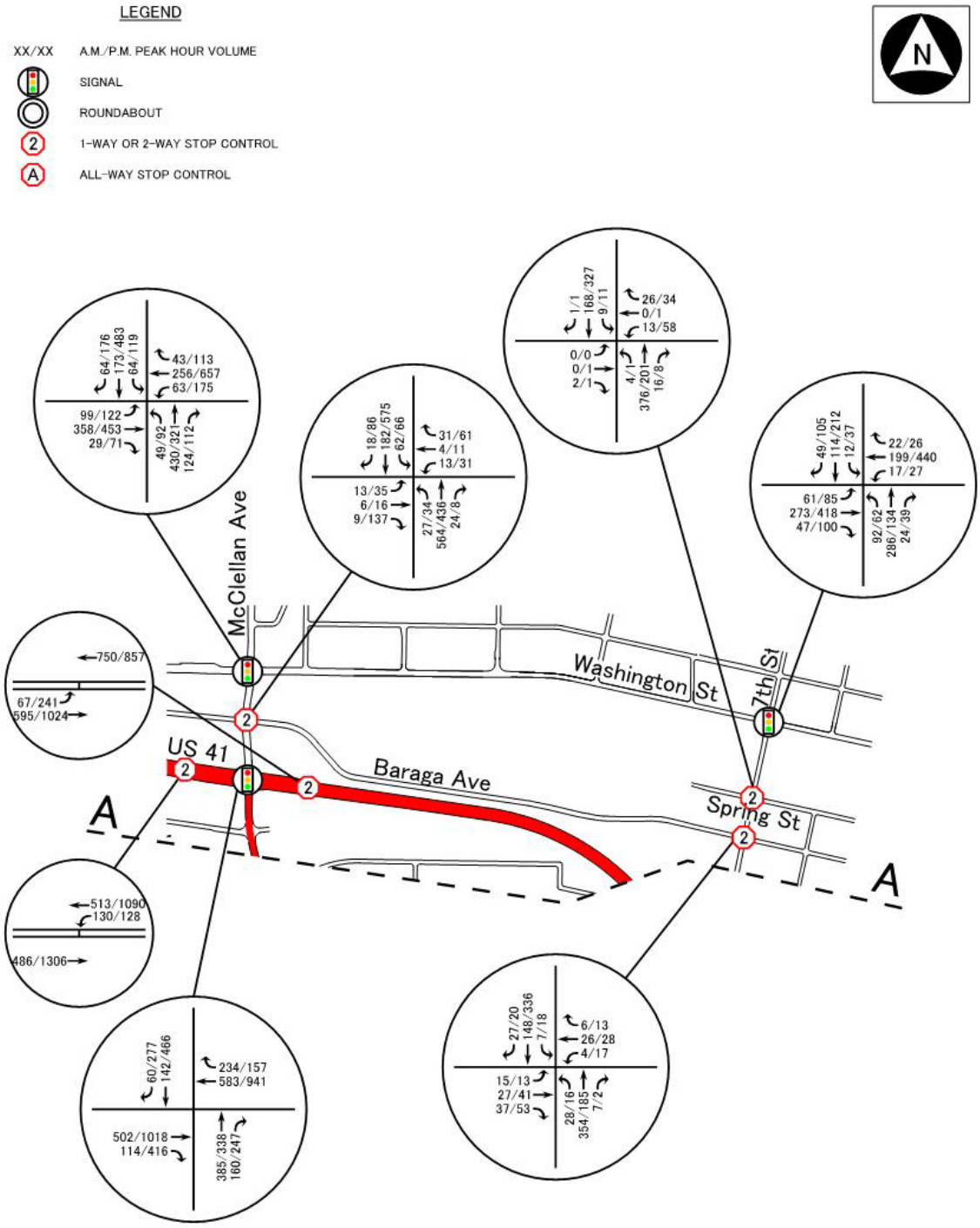


Figure 14 - Design Year 2038 Background Analysis Traffic Volumes North

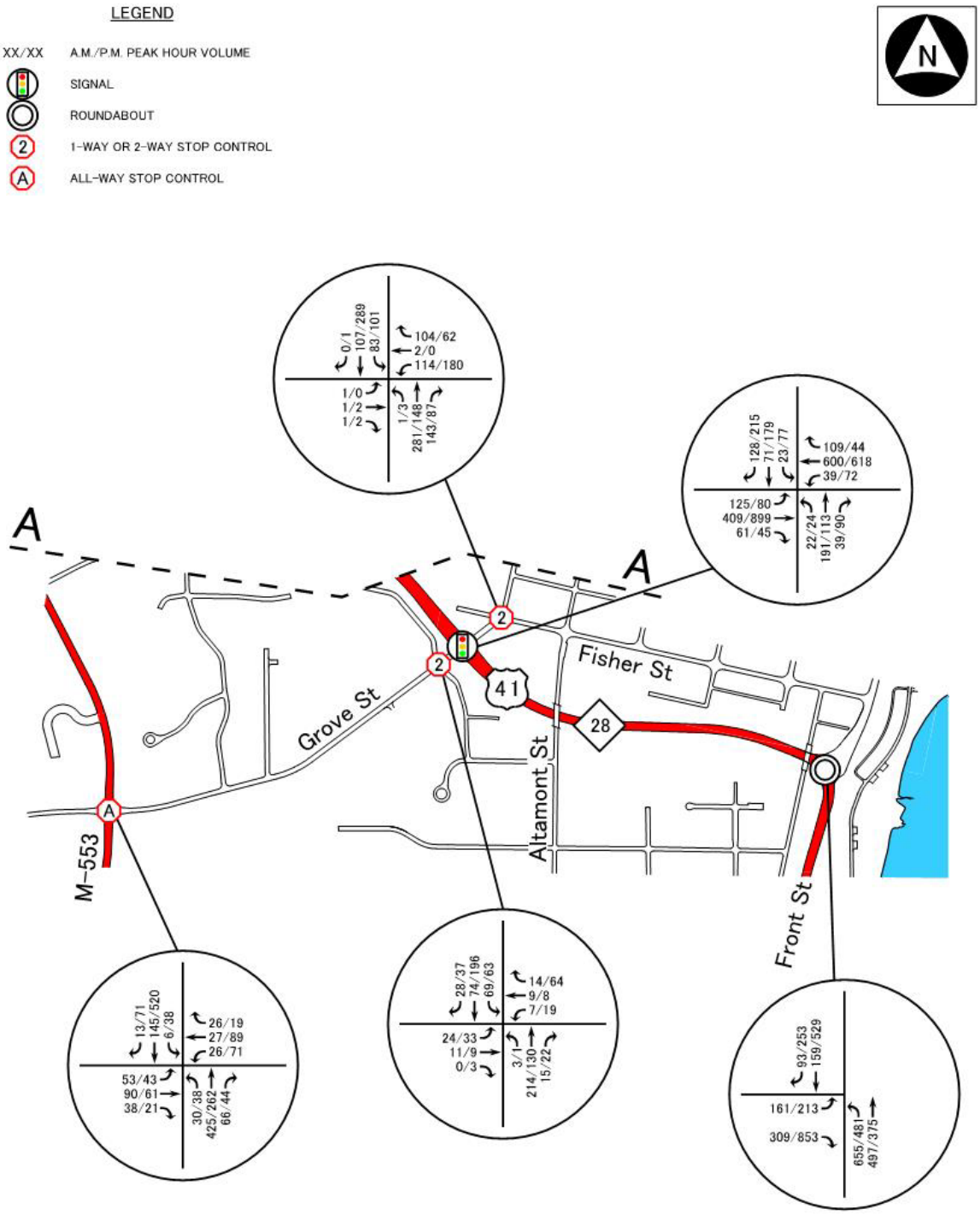


Figure 15 - Design Year 2038 Background Analysis Traffic Volumes South

CAPACITY ANALYSIS

The results of the design year 2038 background capacity analyses are tabulated below. The analysis found that without the proposed hospital development, most operations within the study area will continue to operate at acceptable levels of service when considering only expected regional traffic growth. Some movements are expected to fall below acceptable levels including some at the US-41/Grove/Seventh Street intersection and the Baraga Avenue approaches to McClellan Avenue.

Table 12 - Design Year 2038 Background Capacity Analysis Results (AM Peak Hour)

Signalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
US-41 & Grove / 7th Streets	E	B	B	D	B	B	D	F		D	E		D
	75.8	13.2	11.4	35	14.5	12.3	40	107.9		40.7	77.6		37.1
M-553 & Grove St	B	B		C	B		B	B	B	B	B	B	B
	18.8	18.8		20.8	17		12.2	13.9	13.9	16	11.1	11.1	14.8
Seventh St & Washington St	B	B		C	B		B	14.8		B	B		B
	17.4	16.3		20.4	13.9		15.1	B		16.4	11		14.7
US-41 WB & McClellan Ave*					B	B		A			B	B	B
					16.7	14.8		3.6			16.1	14.4	12.5
US-41 EB & McClellan Ave*		B	B					B	A		A		B
		17.4	13.1					18	8		0.3		14.4
Washington St & McClellan Ave	B	B	B	B	B	B	B	B	B	B	B	B	B
	19.7	16.5	16.5	19.7	15.7	15.8	12.6	13.4	13.5	17	11.2	11.3	14.9

Unsignalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		B			B			A			A		
		13.2			13.2			7.4			7.9		
US-41 & McClellan East Crossover							B						
							12.2						
US-41 & McClellan West Crossover										B			
										11.4			
Seventh St & Spring St		A			C			A			A		
		9.7			15.1			7.7			8.6		
Seventh St & Baraga Ave		C			C			A			A		
		17.3			18.2			7.8			8.4		
Seventh St & Fisher St		B			B		A	A		A			
		14.8			14		7.4	0		8.2			
McClellan Ave & Baraga Ave		D			C		A		A	A		A	
		28.5			21.2		7.8		0.2	9.4		0.3	

Roundabout	AM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A	A			B		A	A	A
	3.09	2.05			10.36		3.7	0.65	7.32

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

Table 13 - Design Year 2038 Background Capacity Analysis Results (PM Peak Hour)

Signalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
US-41 & Grove / 7th Streets	D 50.7	23 C	B 15.9	E 57.3	C 20.1	B 16	D 41.2	C 26		C 30.7	F 82.2		D 35.6
M-553 & Grove St	B 17.9	B 14.7		B 17.2	B 15.5		B 16.7	B 12	B 12	B 13.5	B 13.6	B 13.6	B 14
Seventh St & Washington St	C 22.5	B 15.9		C 21.6	B 14.9		C 24	B 15.6		B 17.5	B 19.4		B 17
US-41 WB & McClellan Ave*					C 20.3	B 13.8		A 2.5			C 22.9	B 19.1	B 17.1
US-41 EB & McClellan Ave*		C 20.6	B 16.1					C 23	C 20		A 1		B 16.6
Washington St & McClellan Ave	C 24.8	B 12.4	B 12.4	C 21	B 14.5	B 14.5	C 30.5	B 17.9	B 18.1	C 25	C 21.1	C 21.3	B 17.9

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		C 21			B 11.7			A 8			A 7.7		
US-41 & McClellan East Crossover							C 18.5						
US-41 & McClellan West Crossover										C 20.6			
Seventh St & Spring St		B 12.5			C 22.3			A 8.1			A 7.8		
Seventh St & Baraga Ave		C 22.5			C 24.5			A 8.6			A 7.8		
Seventh St & Fisher St		C 15.9			C 20.3		A 8.1	A 0		A 7.7			
McClellan Ave & Baraga Ave		F 199.9			F 64.9		A 9.5	A 0.3		A 8.6	A 0.4		

Roundabout	PM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A 4.35	A 4.01			A 8.31		A 5.81	A 1.77	A 5.54

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

10. DESIGN YEAR 2038 NO BUILD ANALYSIS

DLZ conducted an analysis of the future opening year of the proposed hospital on the existing roadway network.

TRAFFIC VOLUMES

Site traffic volumes were assigned to the existing roadway network as discussed earlier and illustrated in Figure 6 and Figure 7. These volumes were added to the 2038 background traffic volumes discussed previously and shown in Figure 14 and Figure 15. The resulting volumes used in the Design Year (2038) No Build Analysis on the existing roadway network are shown in Figure 16 and Figure 17.

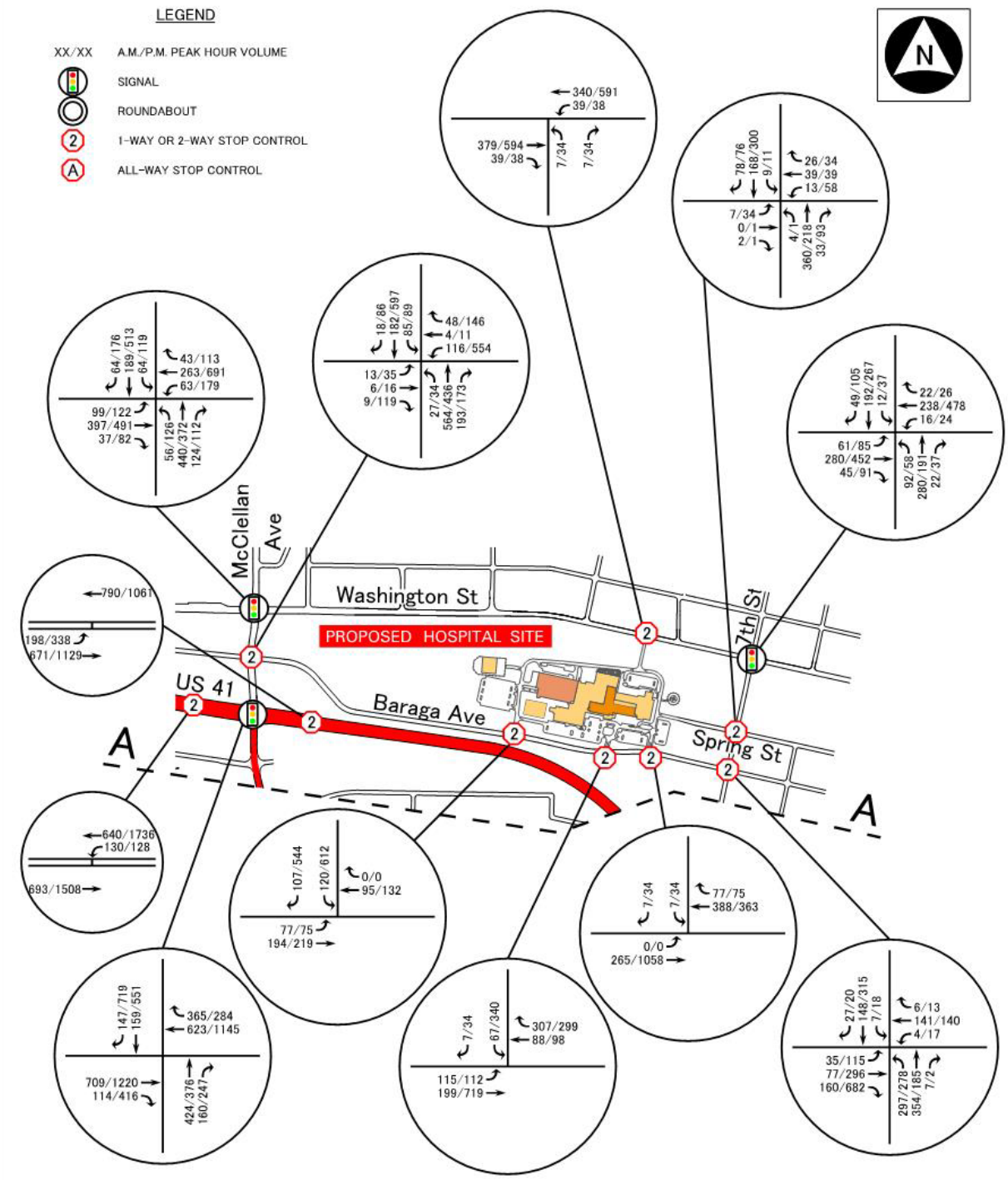


Figure 16 - Design Year 2038 No Build Analysis Traffic Volumes North

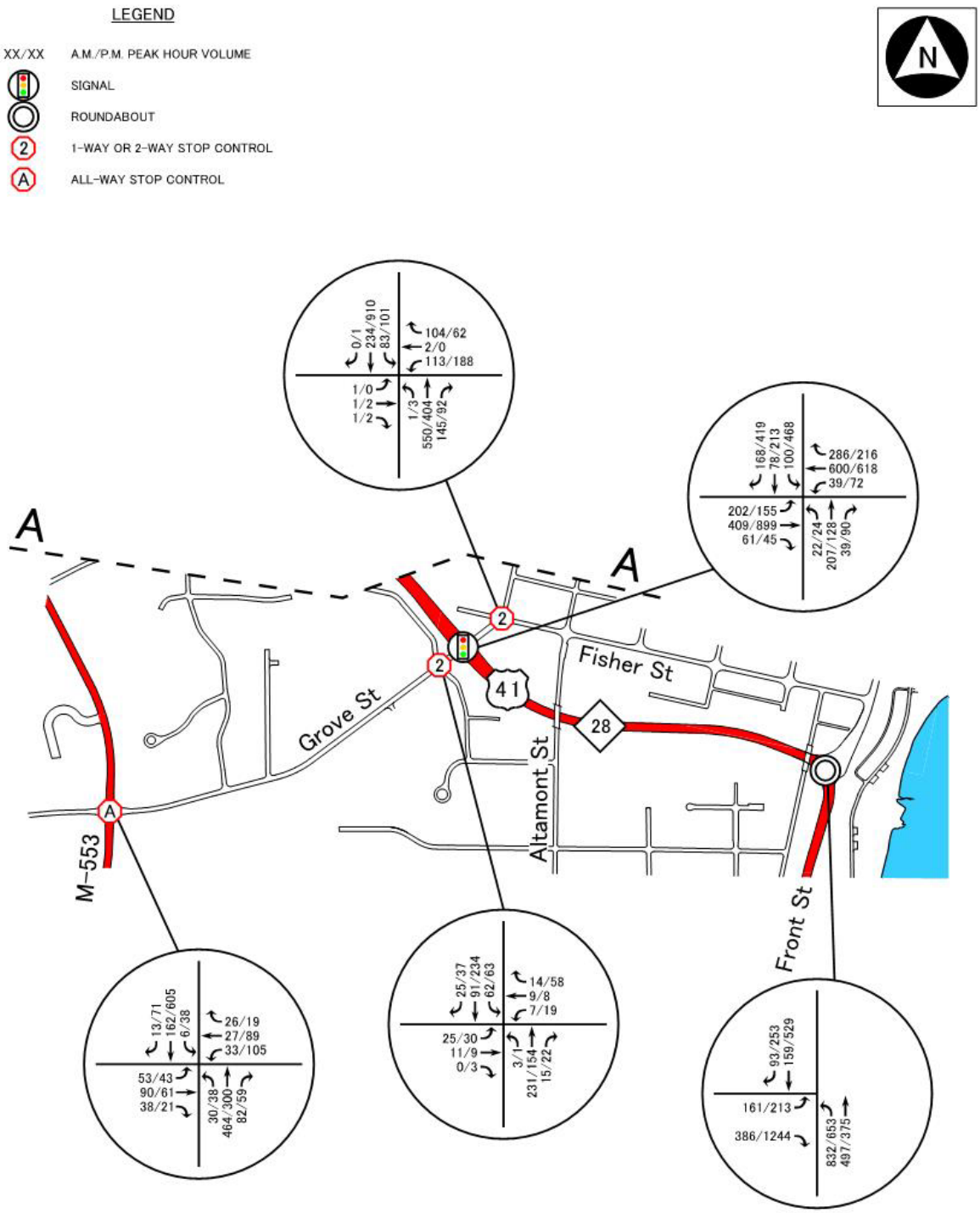


Figure 17 - Design Year 2038 No Build Analysis Traffic Volumes South

CAPACITY ANALYSIS

The results of the design year 2038 capacity analyses are tabulated below. As with the Opening Year 2018 No Build Analysis, the existing roadway network in the vicinity of the proposed development is not expected to be able to accommodate traffic associated with the development in the design year of 2038 without significant improvements. Please refer to the Design Year 2038 Build Analysis section of this report for discussion on expected traffic operations in the design year with the Preferred Alternative.

Table 14 - Design Year 2038 No Build Capacity Analysis Results (AM Peak Hour)

Signalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
US-41 & Grove / 7th Streets	F 268.0	A 9.8	A 8.5	D 45.3	B 14.4	B 16.2	D 41.0	F 153.7		F 178.0	F 194.0		F 80.3
M-553 & Grove St	B 19.6	B 19.8		C 22.2	B 17.7		B 11.8	B 14	B 14	B 16.3	B 10.7	B 10.7	B 15.0
Seventh St & Washington St	B 18.7	B 16.1		C 20.4	B 14.4		B 19.6	B 14.9		B 16.6	B 13.1		B 15.4
US-41 WB & McClellan Ave*					B 17.1	B 118		A 2.7			B 16.4	B 16.2	B 13.8
US-41 EB & McClellan Ave*		C 21.4	B 13.1					C 20.8	A 9.7		A 0.3		B 17.8
Washington St & McClellan Ave	B 15	B 12.8	B 12.8	B 15.6	B 12	B 12	B 18.1	B 19.2	B 19.4	C 24.2	B 15.8	B 16	B 15.9

Unsignalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		B 13.5			B 13.5			A 7.5			A 7.9		
US-41 & McClellan East Crossover							C 15.6						
US-41 & McClellan West Crossover										B 12.9			
Seventh St & Spring St		C 23.8			C 24.4			A 8.5			A 8.7		
Seventh St & Baraga Ave		F **			F **		A 9			A 8.4			
Seventh St & Fisher St		D 31.7			F 950		A 7.8	A 0		A 9.1	A 0		
McClellan Ave & Baraga Ave	E 41.9	E 37.2		F 617	C 16		A 7.8	A 0.3		B 11	A 0.5		
Baraga Ave & Main Drive	A 8.6	A 0									C 20.0		
Baraga Ave & East Drive	A 0	- -								C 15.6	B 11.3		
Baraga Ave & West Drive	A 7.6	A 0								B 13.8	A 9.3		

Unsignalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
North Drive & Washington St				A			B						
				8.4			12.4						

Roundabout	AM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A	A			B		A	A	A
	3.09	2.34			11.66		4.07	0.65	8.27

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

** Volumes exceed the computational capacity of the methodology

Table 15 - Design Year 2018 No Build Capacity Analysis Results (PM Peak Hour)

Signalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
US-41 & Grove / 7th Streets	F 163	C 22.2	B 15.4	D 54.5	B 19.9	C 20.2	D 41.5	C 27.1		F 617.2	F 432		F 204.4
M-553 & Grove St	C 21.2	B 17.4		C 21.7	B 18.3		B 18.3	B 12.5	B 12.5	B 14.4	B 14.4	B 14.4	B 15.5
Seventh St & Washington St	C 23.7	B 16.2		C 21.8	B 15.5		C 28.6	B 17.7		C 20.3	C 23.3		B 18.6
US-41 WB & McClellan Ave*					C 24.7	B 15.6		A 2			C 26.9	F 134	D 47.5
US-41 EB & McClellan Ave*		C 25	B 16.3					C 22.2	B 16.6		A 1		B 18.1
Washington St & McClellan Ave	C 29.6	B 14.2	B 14.3	C 26	B 16.7	B 16.7	D 36.8	B 17.8	B 17.9	C 25.4	C 21.3	C 21.5	B 19.7

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		C 15.1			B 13.3			A 7.8			A 7.7		
US-41 & McClellan East Crossover							E 40.7						
US-41 & McClellan West Crossover										D 25.4			
Seventh St & Spring St		F 146.4			F 238.6			A 8.9			A 8.4		
Seventh St & Baraga Ave		F **			F **		B 11.2			A 7.8			
Seventh St & Fisher St		E 35			F 7836		B 11.6	A 0		A 8.9			
McClellan Ave & Baraga Ave	F 120	D 29		F 2833	C 16.6		A 9.4	A 0.3		A 9.4	A 0.7		
Baraga Ave & Main Drive	A 8.6	A 0								F 1063			
Baraga Ave & East Drive	A 0									F 60.7	B 11.3		
Baraga Ave & West Drive	A 7.7	A 0								F 190.4	C 15.9		

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
North Drive & Washington St				A			C						
				9.2			18						

Roundabout	PM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A	B			A		A	A	A
	5.72	10.6			8.92		6.35	1.77	8.38

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

** Volumes exceed the computational capacity of the methodology

11. DESIGN YEAR 2038 BUILD CAPACITY ANALYSIS

DLZ analyzed the study intersections 20 years after opening in the design year of 2038. The design year capacity analyses were used to fine tune the Preferred Alternative to determine final physical roadway and intersection traffic control recommendations. The following is a discussion of key study area improvements that were determined through this effort. All analysis results presented in this section assume the implementation of the Preferred Alternative as shown in Figure 1.

Main Hospital Driveway and US-41

This newly constructed intersection is proposed to be a two-lane roundabout. The recommended design based on the RODEL analysis is to provide two entry and two circulatory lanes for eastbound and westbound traffic on US-41. The southbound approach of the new Main Hospital Driveway will have two lanes, one for left turns and one for right turns. As shown in Table 16 and Table 17, each approach to the intersection is expected to operate at LOS B or better in both peak hours at the 50% confidence level. The intersection was also tested at the 85% confidence level (i.e., a pessimistic capacity) to ensure the roundabout would provide acceptable LOS in a "worst case" scenario, and it was shown to operate at LOS C or better at this confidence level as well.

US-41 and Seventh Street/Grove Street

This intersection is proposed to be reconstructed as a roundabout. The recommended design based on the RODEL analysis is to provide two entry and circulatory lanes for eastbound and westbound traffic on US-41. The southbound approach of Seventh Street is proposed to have two lanes, one for through traffic and left turns and one for right turns. The northbound approach of Grove Street is proposed to be a single lane. As shown in Table 16 and Table 17, each approach to the intersection is expected to operate at LOS B or better in both peak hours at the 50% confidence level. The intersection was also tested at the 85% confidence level (i.e., a pessimistic capacity) to ensure the roundabout would provide acceptable LOS in a "worst case" scenario, and it was shown to operate at LOS C or better during both peak hours.

McClellan Avenue at Baraga Avenue and at Washington Avenue

An initial analysis found that the Baraga Avenue approaches to this intersection were expected to experience unacceptable levels of service with the addition of hospital traffic. DLZ reviewed several possible improvement options to address this and provided a brief memo to the project team for discussion. Through that discussion it was decided to restrict the westbound approach of Baraga Avenue to right turns only onto McClellan Avenue. This restriction was found to impact the operations at the signalized intersection of Washington Street and McClellan Avenue. Therefore, it was decided that McClellan Avenue would be widened to accommodate a lengthened northbound left turn lane at Washington Avenue and left turn lanes on the approaches at Baraga Avenue. The traffic signal at Washington Street would be upgraded to provide for protected left turn phasing. As a result of these improvements, the intersection at Washington Street will

operate at LOS D or better for all movements in both peak hours. Also, all movements at the Baraga Avenue will operate at acceptable LOS except for the eastbound approach of Baraga Avenue which will continue to operate at LOS F, as it does today.

Main Hospital Driveway at Baraga Avenue

The volume of traffic forecasted to use this intersection in the design year indicated the need for either traffic signal or roundabout control. A concern exists that queuing on the northbound approach to this intersection may extend back to US-41 and impact operations on the trunkline. Analyses indicated that roundabout control at this intersection would minimize this concern, in part because the operations of a roundabout at this location would be compatible with the proposed roundabout at the US-41 intersection. Further analyses found that two northbound lanes into the site are recommended to further ensure that queuing does not back to US-41. The resulting recommended design for this intersection is a compact urban roundabout with two lanes serving northbound and southbound traffic and a single entering lane for east-west Baraga Avenue traffic. The maximum northbound queue anticipated based on the RODEL analysis is 1 vehicle per lane. Therefore, queuing that might affect operations of US-41 is not a concern with this recommended design.

To further ensure that the proposed roundabout design at this intersection can adequately serve future traffic volumes, a sensitivity analysis was conducted with revised turning movement assumptions to account for unknowns regarding how site traffic will utilize the three site driveways proposed on Baraga Avenue. The original distribution of site traffic to these driveways was provided by DLP and indicated that 50% of site traffic will use the Main Hospital Driveway, with 10% of traffic using the western driveway, and 15% using the eastern driveway on Baraga Avenue. Nearly 70% of on-site parking is located on the west side of the site. As a result, traffic exiting and entering the site may be distributed more to the western driveway than was originally assumed. This is anticipated to affect outbound distribution of traffic at the driveways more so than inbound traffic. Inbound traffic approaching from US-41 on the Main Hospital Driveway is likely to continue straight into the site even if they eventually park on the west side of the site. Outbound traffic departing from the west side of the site may choose to exit via the western driveway rather than circulate through the site to exit at the Main Hospital Driveway. Rather than being southbound through traffic at the Hospital Driveway and Baraga Avenue intersection, this traffic, after exiting the western driveway and turning left, would turn right at this intersection to head toward US-41. A shift of 25% of total site traffic (half of the traffic forecasted to exit the Main Hospital Driveway) from a southbound through movement to an eastbound right turn movement at this intersection was tested for the PM peak hour in RODEL (the PM Peak Hour has overall higher forecasted traffic volumes and, therefore, is the controlling peak hour). The results indicated an expected LOS of C with a 50% confidence level and LOS D with an 85% confidence level for the eastbound approach, both within acceptable limits. This sensitivity analysis found that the proposed roundabout design at this intersection is robust enough to accommodate foreseeable variations in future traffic volumes.

Seventh Street at Spring Street, Baraga Avenue and Fisher Street

The Seventh Street intersections with Spring Street, Baraga Avenue and Fisher Street are currently stop controlled on the minor legs. The design year analyses indicated that these minor leg approaches can be expected to operate at unacceptable levels of service. These three intersections are within a residential neighborhood, and significant widening or the installation of traffic signal control was determined to be undesirable through discussions with the City. Also of concern were steep approach grades to these intersections on Seventh Street which can be problematic when there is snow. In lieu of signalization, the Preferred Alternative includes a continuous left turn lane along Seventh Street from north of Spring Street to Fisher Street. This is expected to benefit operations along Seventh Street within the study area. Drivers who may continue to experience long delays on minor leg approaches will have other alternative routes for navigating the study area including using US-41 and Washington Street. The City has determined that they will monitor the operations at these intersections and, if needed, address any operational concerns, which may include the installation of traffic signal control (if applicable warrants are met).

TRAFFIC VOLUMES

MDOT provided forecasted 2038 traffic volumes. Other intersection volumes were grown to 2038 at 0.5% per year. Volumes were redistributed as needed on the Preferred Alternative roadway network. The site volumes shown in Figure 6 and Figure 7 were added and the resulting design year 2038 volumes used in the capacity analyses are shown in Figure 18 and Figure 19.

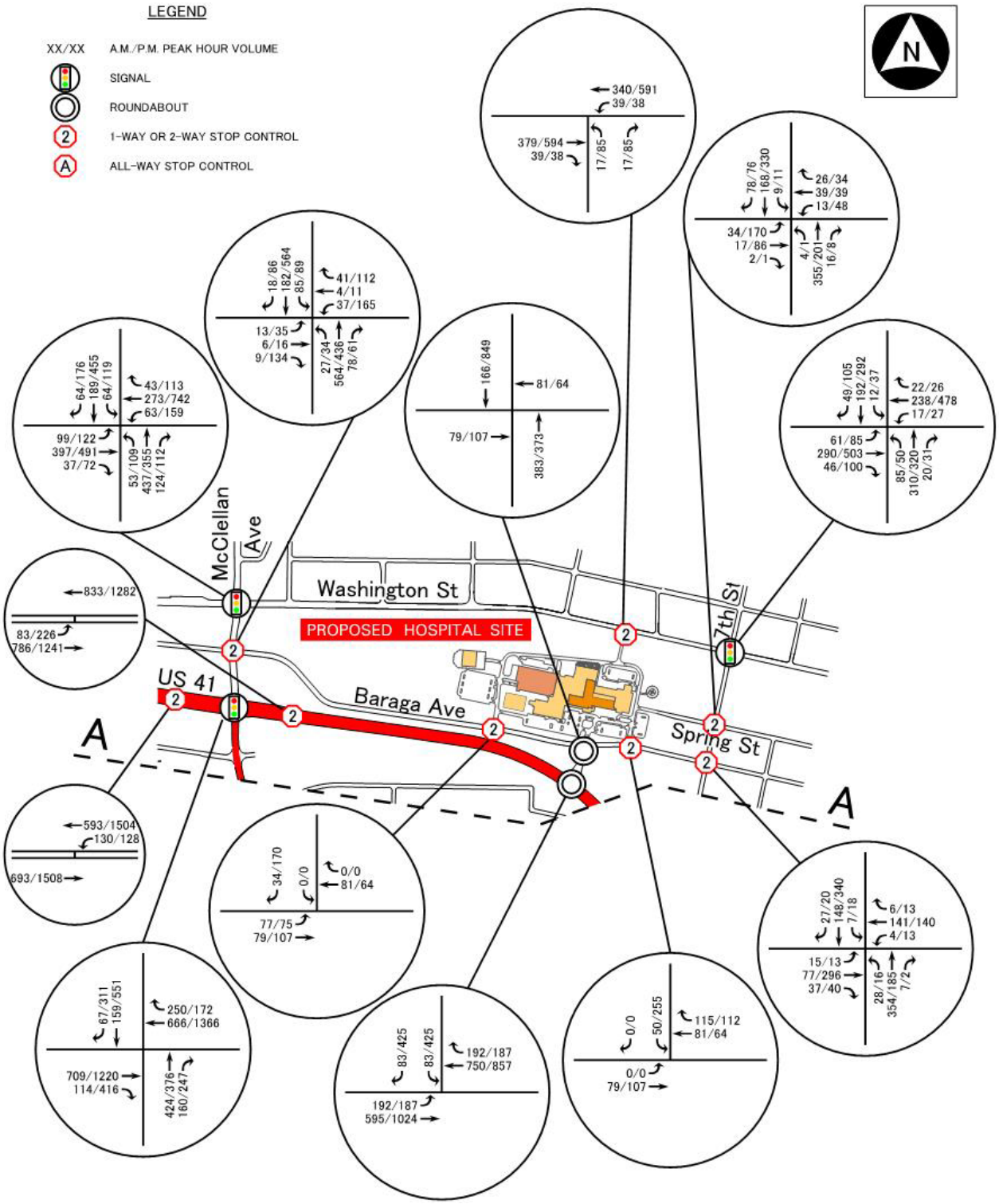


Figure 18 - Design Year 2038 Build Traffic Volumes North

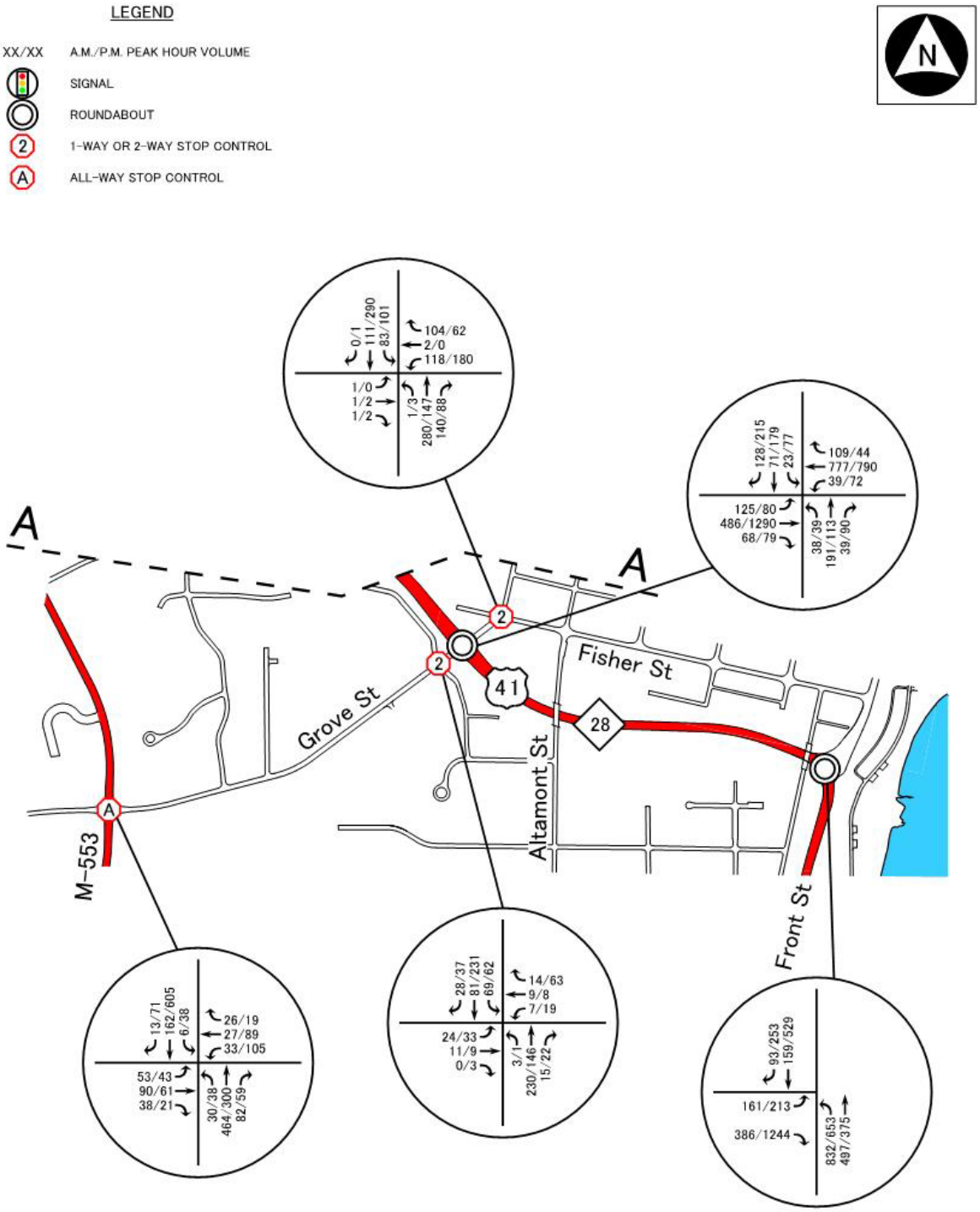


Figure 19 - Design Year 2038 Build Traffic Volumes South

CAPACITY ANALYSIS

The results of the design year 2038 Build capacity analyses are shown in Table 16.

Table 16 - Design Year 2038 Build Capacity Analysis Results (AM Peak Hour)

Signalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Seventh St & Washington St	B 18.5	B 16.2		C 20.7	B 14.2		B 19.6	B 16.5		B 18.2	B 13.5		B 15.9
M-553 & Grove St	B 16.8	B 17.1		B 18.9	B 15.2		B 11.5	B 13.9	B 14	B 15.9	B 10.5	B 10.5	B 14.1
US-41 WB and McClellan Ave*					C 20.2	B 17.2		A 3.6			B 13.1	B 11.2	B 13.8
US-41 EB and McClellan Ave*		C 25.5	B 14.9					C 23.7	B 16		A 0.3		C 21.5
Washington St & McClellan Ave	B 19.6	C 28.2	C 28.2	B 19.7	C 26.8	C 26.9	B 15.5	C 32	C 32.2	B 10	B 19.6	B 19.8	C 26.3
Unsignalized Intersection	**AM LOS / Delay (s/veh)**												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		B 13.8			B 13.8			A 7.5			A 7.9		
US-41 & McClellan East Crossover							B 13.1						
US-41 & McClellan West Crossover										B 12.9			
Seventh St & Spring St	E 42.9	C 21.6		C 22.5	C 19.9		A 8.5			A 8.5			
Seventh St & Baraga Ave	E 40.2	C 21.4		D 28.7	E 37.3		A 7.8			A 8.4			
Seventh St & Fisher St		B 14.3			F 78.6		A 7.5	A 0		A 9.1	A 0		
McClellan Ave & Baraga Ave	E 37	D 25.7				B 11.7	A 7.8			B 10			
Baraga Ave & East Drive	A 0									B 10.5	A 0		
Baraga Ave & West Drive	A 7.5	A 0								B 10.8	A 8.8		

Unsignalized Intersection	AM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
North Drive & Washington St				A			B						
				8.4			12.8						

Roundabout	AM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A	A			B		A	A	A
	3.09	2.34			11.66		4.07	0.65	8.27
US-41 & Grove / 7th St	A		A		A		A	A	A
	5.4		7.07		7.52		4.6	4.66	6.32
US-41 & Main Drive	A		A				A	A	A
	6.69		6.39				4.08	3.84	6.3
Baraga Ave & Main Drive	A		A		A		A		A
	4.62		4.74		4.05		3.45		4.07

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

Table 17 - Design Year 2038 Build Capacity Analysis Results (PM Peak Hour)

Signalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Seventh St & Washington St	C 23.6	B 18.1		C 23.9	B 15.5		C 28	C 22.3		C 25.8	C 23.5		B 20
M-553 & Grove St	B 13.3	B 10.9		B 16.2	B 11.5		C 22.7	B 16.9	B 17	B 19.1	B 18.9	B 18.9	B 16.8
US-41 WB and McClellan Ave*					C 27.6	B 12.2		A 3.6			B 19.7	B 14.3	B 20
US-41 EB and McClellan Ave*		C 20.5	B 14.2					C 30	C 22.9		A 1.2		B 18.1
Washington St & McClellan Ave	C 23.3	C 28.7	C 28.8	C 20.4	D 43.7	D 43.6	C 22.5	C 31.5	C 31.7	B 18.5	C 34.6	D 35.1	C 33.1

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Grove St & Anderson St / Homestead St		C 16.6			B 14.1			A 8.1			A 7.7		
US-41 & McClellan East Crossover							D 31.1						
US-41 & McClellan West Crossover										D 25.4			
Seventh St & Spring St	F 565.8	D 30.1		F 64.7	E 37.3		A 8.9			A 7.8			
Seventh St & Baraga Ave	EBL 46	F 411.2			E 40.7		A 8.5			A 7.8			
Seventh St & Fisher St		B 13.6			F 344.5		A 8.4	A 0		A 7.7	A 0		
McClellan Ave & Baraga Ave	F 87.2	C 22.4				B 11.7	A 9.3			A 8.9			
Baraga Ave & East Drive	A 0									C 15.1	A 0		
Baraga Ave & West Drive	A 7.5	A 0								B 11.6	A 9		

Unsignalized Intersection	PM LOS / Delay (s/veh)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
North Drive & Washington St				A			D						
				9.2			26.2						

Roundabout	PM LOS / Delay (s/veh)								
	EB	BP	WB	BP	NB	BP	SB	BP	Overall
US-41 & Front St	A	B			A		A	A	A
	5.72	10.6			8.92		6.35	1.77	8.38
US-41 & Grove / 7th St	B		A		B		A	A	A
	12.02		6.27		12		7.37	5.85	9.44
US-41 & Main Drive	B		A				A	A	A
	11.87		6.77				8.23	7.68	9.08
Baraga Ave & Main Drive	A		A		A		A		A
	8.14		4.47		4.22		8.01		6.92

* Level of Service cannot be calculated using HCM 2010. HCM 2000 was used for these intersections.

12. CONCLUSION

The analysis summarized in this traffic study determined the recommended roadway improvements, included in the Preferred Alternative, that are proposed for the study area to accommodate the proposed relocation of Marquette General Hospital. These Preferred Alternative roadway improvements are illustrated in Figure 1 and summarized as follows:

- Main Hospital Entrance Connection to US-41 with a Roundabout Intersection;
- The existing intersection of US - 41 with Grove/Seventh Streets is converted to a roundabout intersection;
- The proposed intersection of Baraga Avenue with the Main Hospital Entrance is proposed as a compact urban roundabout with two northbound lanes for traffic entering the site from US-41;
- The westbound approach of Baraga Avenue at McClellan Avenue is restricted to prohibit left turns and through traffic and allow right turns only. All other movements at this intersection will continue to be permitted, and the intersection will continue to operate as stop controlled on Baraga Avenue approaches and free flow on McClellan Avenue;
- McClellan Avenue is widened to provide northbound and southbound left turn lanes at Baraga Avenue and to lengthen the northbound left turn lane at Washington Street;
- The existing traffic signal at the intersection of McClellan Avenue and Washington Street is modified to provide permitted/protected left turn phasing;
- Seventh Street is widened to provide a center left turn lane from north of Spring Street to Fisher Street and left turn lanes are provided on the Baraga Avenue and Spring Street minor leg approaches to Seventh Street.
- Non-motorized facilities will be constructed alongside and as part of the above roadway improvements to accommodate pedestrians and bicycles consistent with City and MDOT plans and requirements.

Following the completion of the above roadway improvements and the opening of the hospital, the City will monitor traffic operations along Seventh Street from Spring Street to Fisher Street. If concerns with operations arise, the City will consider the need for additional improvements at intersections along this segment of Seventh Street.

Anticipated vehicle queues at each of the study intersections were considered during these analyses, and no queuing concerns were identified in the future Build scenarios with implementation of the Preferred Alternative. Most importantly, northbound queuing at the proposed intersection of Baraga Avenue with the Main Hospital Driveway is expected to be a maximum of one (1) vehicle in each lane during both the AM and PM peak hours with the roundabout design proposed as part of the Preferred Alternative. These queues are not expected to extend to US-41 and will not impact operations along US-41.

The analysis presented in this report found that the above roadway improvements (the Preferred Alternative) are expected to accommodate anticipated hospital traffic as well as anticipated regional traffic growth through the year 2038. The traffic operations analysis presented in this report found that the existing roadway network within the study area is not sufficient for accommodating the proposed development of a hospital at the site in question. The improvements proposed in the Preferred Alternative were found to accommodate both the anticipated hospital site traffic as well as other regional traffic growth. The proposed addition of an access point on US-41 for the Main Hospital Driveway was identified as a need to serve expected future hospital-related traffic. The reconstruction of the existing intersection of US-41 at Seventh/Grove Street as a roundabout will alleviate existing LOS deficiencies as well as accommodate forecasted traffic volumes. The analyses of the adjacent US-41 intersections at McClellan to the west and Front Street to the east determined that these intersections will continue to operate at LOS D or better in the future. Therefore, it was determined that the proposed improvements on US-41 will not adversely impact the operations of US-41 and will benefit the travelling public through the improved mobility and safety aspects of the Preferred Alternative.

APPENDIX A
EXISTING TRAFFIC DATA

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	6	0	0	1	0	1	0	0	12	0	0	0	0	0	0
6:15 AM	0	8	0	0	0	0	2	0	0	20	1	0	0	0	0	0
6:30 AM	0	11	1	0	5	0	1	0	1	47	0	0	0	0	0	0
6:45 AM	0	14	0	0	4	0	0	0	2	58	1	0	0	0	0	0
7:00 AM	0	20	0	0	6	0	0	0	0	88	0	0	0	0	0	0
7:15 AM	0	35	1	0	2	0	2	0	1	94	0	0	0	0	0	0
7:30 AM	1	49	1	0	4	0	4	0	2	66	1	0	0	0	0	0
7:45 AM	0	34	3	0	12	0	5	0	10	113	2	0	0	0	0	0
8:00 AM	0	22	3	0	5	0	1	0	1	53	1	0	2	0	0	0
8:15 AM	0	19	2	0	2	0	1	0	2	45	0	0	0	0	0	0
8:30 AM	0	20	2	0	5	0	3	0	4	68	0	0	0	0	0	0
8:45 AM	0	32	1	0	9	0	4	0	4	84	0	0	1	0	0	0
9:00 AM	0	22	2	0	2	0	5	0	1	33	0	0	0	0	0	0
9:15 AM	0	21	0	0	3	0	6	0	1	38	0	0	0	1	0	0
9:30 AM	0	22	2	0	5	0	5	0	2	61	0	0	0	1	0	0
9:45 AM	1	28	5	0	5	1	4	0	2	42	0	0	0	0	0	0
10:00 AM	1	37	3	1	4	1	3	0	1	33	0	0	0	1	0	0
10:15 AM	0	25	4	0	2	1	3	0	2	40	0	0	0	0	0	0
10:30 AM	1	23	3	0	6	1	6	0	2	35	0	0	0	0	0	0
10:45 AM	0	33	1	0	8	2	3	0	2	34	0	0	0	1	0	0
11:00 AM	0	31	3	0	4	0	9	0	2	20	0	0	0	0	0	0
11:15 AM	0	28	6	0	5	0	3	0	4	36	1	0	0	0	1	0
11:30 AM	0	27	2	0	12	0	4	0	0	42	0	0	0	0	0	0
11:45 AM	0	51	1	0	11	1	8	0	7	62	0	0	0	0	0	0
12:00 PM	0	64	4	0	8	0	6	0	4	35	0	0	0	0	0	0
12:15 PM	1	45	4	0	9	0	7	0	2	33	0	0	1	0	0	0
12:30 PM	0	40	4	0	8	0	7	0	7	50	0	0	0	0	1	0
12:45 PM	0	43	8	0	6	1	5	0	3	47	0	0	2	0	0	0
1:00 PM	0	55	4	0	4	0	12	0	1	38	0	0	1	0	0	0
1:15 PM	1	43	4	0	3	1	7	0	6	28	0	0	0	0	1	0
1:30 PM	1	43	4	0	7	0	5	0	4	46	0	0	0	0	1	0
1:45 PM	1	46	6	0	1	0	6	0	0	35	0	0	0	0	0	0
2:00 PM	0	34	2	0	5	0	7	0	0	38	0	0	0	1	1	0
2:15 PM	1	32	3	1	8	0	4	0	4	48	1	0	0	0	0	0
2:30 PM	0	63	5	0	4	1	8	0	3	45	1	0	0	0	1	0
2:45 PM	1	62	5	0	5	0	2	0	4	55	0	0	0	0	0	0
3:00 PM	2	41	5	0	6	0	7	0	5	38	0	0	0	0	0	0
3:15 PM	1	40	3	0	5	0	3	0	4	36	0	0	1	0	2	0
3:30 PM	1	68	5	0	11	0	7	0	5	40	0	0	0	1	1	0
3:45 PM	0	75	5	0	4	0	5	0	2	64	0	0	0	0	1	0
4:00 PM	0	75	5	0	8	2	10	0	3	38	0	0	1	2	0	0
4:15 PM	0	72	2	0	8	0	8	0	1	47	1	0	0	0	0	0
4:30 PM	1	78	1	0	8	0	11	0	1	24	1	0	1	0	0	0
4:45 PM	0	80	3	0	7	0	3	0	2	46	0	0	0	0	0	0
5:00 PM	0	103	5	0	5	0	31	0	4	45	0	0	0	1	0	0
5:15 PM	0	66	1	0	10	1	6	0	0	56	0	0	0	0	0	0
5:30 PM	0	63	4	0	1	0	1	0	2	53	0	0	0	1	0	0
5:45 PM	0	50	6	0	4	0	5	0	1	47	0	0	0	0	1	0

Location 41.xls

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	3	0	0	1	0	0	0	1	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Spring St Crossing East Leg	7th St Crossing South Leg	Spring St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	1	1	0	0
7:00 AM	0	1	2	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	1	0	0
8:15 AM	0	0	0	2
8:30 AM	0	0	0	2
8:45 AM	0	0	1	1
9:00 AM	0	1	0	0
9:15 AM	0	1	0	0
9:30 AM	0	0	0	2
9:45 AM	0	0	0	0
10:00 AM	0	1	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	1
10:45 AM	0	0	0	0
11:00 AM	0	0	0	1
11:15 AM	0	0	0	0
11:30 AM	0	2	1	0
11:45 AM	0	0	0	0
12:00 PM	0	2	0	0
12:15 PM	0	2	0	1
12:30 PM	0	0	0	1
12:45 PM	1	2	1	1
1:00 PM	0	0	0	0
1:15 PM	0	1	0	0
1:30 PM	4	3	3	0
1:45 PM	0	0	0	0
2:00 PM	4	0	0	1
2:15 PM	0	0	0	2
2:30 PM	2	1	0	2
2:45 PM	0	1	0	2
3:00 PM	0	2	2	2
3:15 PM	0	2	0	0
3:30 PM	2	1	1	1
3:45 PM	0	4	1	0
4:00 PM	0	3	0	0
4:15 PM	0	0	0	0
4:30 PM	0	3	0	0
4:45 PM	0	2	0	0
5:00 PM	0	1	0	0
5:15 PM	2	0	0	2
5:30 PM	0	9	7	0
5:45 PM	0	4	2	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Spring St Crossing East Leg	7th St Crossing South Leg	Spring St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	1	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	1
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	3	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	2	1	0
1:45 PM	0	1	0	0
2:00 PM	0	2	1	0
2:15 PM	0	3	0	1
2:30 PM	0	3	0	0
2:45 PM	1	1	0	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	1
3:45 PM	0	1	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	0	1
4:45 PM	0	0	0	1
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 41 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	7	0	0	1	0	1	0	0	13	0	0	0	0	0	0
6:15 AM	0	8	0	0	0	0	2	0	0	20	1	0	0	0	0	0
6:30 AM	0	11	1	0	5	0	1	0	1	47	0	0	0	0	0	0
6:45 AM	0	14	0	0	4	0	0	0	2	59	1	0	0	0	0	0
7:00 AM	0	21	0	0	7	0	0	0	0	90	0	0	0	0	0	0
7:15 AM	0	41	1	0	2	0	2	0	1	96	0	0	0	0	0	0
7:30 AM	1	51	1	0	4	0	4	0	2	66	1	0	0	0	0	0
7:45 AM	0	35	3	0	12	0	5	0	10	116	2	0	0	0	0	0
8:00 AM	0	22	3	0	5	0	1	0	1	54	1	0	2	0	0	0
8:15 AM	0	20	2	0	2	0	1	0	2	47	0	0	0	0	0	0
8:30 AM	0	20	2	0	5	0	3	0	4	69	0	0	0	0	0	0
8:45 AM	0	32	1	0	9	0	4	0	4	84	0	0	1	0	0	0
9:00 AM	0	24	2	0	2	0	5	0	1	34	0	0	0	0	0	0
9:15 AM	0	24	0	0	3	0	6	0	1	39	0	0	0	1	0	0
9:30 AM	0	22	2	0	5	0	5	0	2	62	0	0	0	1	0	0
9:45 AM	1	30	5	0	5	1	4	0	2	43	0	0	0	0	0	0
10:00 AM	1	37	4	1	4	1	3	0	1	34	0	0	0	1	0	0
10:15 AM	0	29	4	0	2	1	3	0	2	44	0	0	0	0	0	0
10:30 AM	1	26	3	0	6	1	6	0	2	36	0	0	0	0	0	0
10:45 AM	0	34	1	0	9	2	3	0	2	34	0	0	0	1	0	0
11:00 AM	0	33	3	0	4	0	9	0	2	21	0	0	0	0	0	0
11:15 AM	0	30	6	0	5	0	3	0	4	36	1	0	0	0	1	0
11:30 AM	0	27	2	0	12	0	4	0	0	43	0	0	0	0	0	0
11:45 AM	0	51	1	0	11	1	8	0	7	62	0	0	0	0	0	0
12:00 PM	0	64	4	0	8	0	6	0	4	36	0	0	0	0	0	0
12:15 PM	1	47	4	0	10	0	7	0	2	34	0	0	1	0	0	0
12:30 PM	0	42	4	0	8	0	7	0	7	51	0	0	0	0	1	0
12:45 PM	0	44	8	0	6	1	5	0	3	47	0	0	2	0	0	0
1:00 PM	0	57	4	0	4	0	12	0	1	40	0	0	1	0	0	0
1:15 PM	1	45	4	0	4	1	7	0	6	28	0	0	0	0	1	0
1:30 PM	1	44	4	0	8	0	5	0	4	47	0	0	0	0	1	0
1:45 PM	1	48	6	0	1	0	6	0	0	35	0	0	0	0	0	0
2:00 PM	0	36	2	0	5	0	7	0	0	38	0	0	0	1	1	0
2:15 PM	1	34	3	1	8	0	4	0	4	49	1	0	0	0	0	0
2:30 PM	0	70	5	0	4	1	8	0	3	45	1	0	0	0	1	0
2:45 PM	1	62	5	0	5	0	2	0	4	56	0	0	0	0	0	0
3:00 PM	2	41	5	0	6	0	7	0	5	39	0	0	0	0	0	0
3:15 PM	1	41	3	0	5	0	3	0	4	36	0	0	1	0	2	0
3:30 PM	1	68	5	0	11	0	8	0	5	41	0	0	0	1	1	0
3:45 PM	0	75	5	0	5	0	5	0	2	65	0	0	0	0	1	0
4:00 PM	0	76	5	0	9	2	11	0	3	39	0	0	1	2	0	0
4:15 PM	0	76	2	0	9	0	8	0	2	48	1	0	0	0	0	0
4:30 PM	1	78	1	0	8	0	11	0	1	25	1	0	1	0	0	0
4:45 PM	0	80	3	0	7	0	3	0	2	48	0	0	0	0	0	0
5:00 PM	0	104	5	0	5	0	31	0	4	48	0	0	0	1	0	0
5:15 PM	0	67	1	0	10	1	6	0	0	56	0	0	0	0	0	0
5:30 PM	0	64	4	0	1	0	1	0	2	54	0	0	0	1	0	0
5:45 PM	0	51	6	0	4	0	5	0	1	47	0	0	0	0	1	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	5	0	0	0	1	0	0	0	7	2	0	0	0	1	0
6:15 AM	6	3	0	0	1	2	0	0	0	22	7	0	0	3	2	0
6:30 AM	2	12	0	0	1	1	1	0	0	49	1	0	4	0	1	0
6:45 AM	2	12	0	0	0	3	0	0	0	55	2	0	0	3	1	0
7:00 AM	1	20	1	0	1	2	0	0	0	93	2	0	0	6	3	0
7:15 AM	5	33	0	0	0	3	1	0	0	83	5	0	9	1	2	0
7:30 AM	4	43	2	0	4	6	1	0	2	72	9	0	6	7	2	0
7:45 AM	8	30	1	0	1	6	0	0	2	109	4	0	12	10	4	0
8:00 AM	7	16	3	0	0	7	1	0	2	46	7	0	6	6	1	0
8:15 AM	1	19	2	0	1	2	0	0	0	42	5	0	1	3	4	0
8:30 AM	4	18	2	0	5	8	1	0	0	71	3	0	2	1	6	0
8:45 AM	6	32	3	0	3	6	1	0	0	71	3	0	9	2	4	0
9:00 AM	2	23	0	0	0	8	1	0	2	30	1	0	3	6	5	0
9:15 AM	2	23	2	0	3	8	1	0	2	39	2	0	9	7	1	0
9:30 AM	3	20	1	0	4	6	0	0	2	55	6	0	7	4	3	0
9:45 AM	5	29	2	0	3	3	1	0	1	35	4	0	8	10	2	0
10:00 AM	5	32	2	0	2	4	2	0	1	28	5	0	3	5	2	0
10:15 AM	2	22	0	0	2	8	1	0	0	35	3	0	6	4	5	0
10:30 AM	7	19	1	0	0	6	0	0	0	34	6	0	2	2	3	0
10:45 AM	2	34	3	0	1	6	3	0	2	26	4	0	2	3	6	0
11:00 AM	5	35	1	0	1	8	4	0	0	21	4	0	12	7	2	0
11:15 AM	5	21	0	0	4	10	1	0	2	30	0	0	5	8	7	0
11:30 AM	3	30	1	0	2	6	3	0	0	42	2	0	5	5	1	0
11:45 AM	6	44	7	0	6	8	4	0	0	51	3	0	4	6	10	0
12:00 PM	9	59	2	0	1	5	3	0	2	35	5	0	9	10	3	0
12:15 PM	7	36	6	0	1	9	1	0	0	37	5	0	12	6	3	0
12:30 PM	2	44	0	0	4	5	1	0	4	43	4	0	4	9	5	0
12:45 PM	6	42	7	0	4	7	4	0	0	41	4	0	9	7	2	0
1:00 PM	5	57	1	0	1	7	0	0	1	34	4	0	10	8	3	0
1:15 PM	10	38	4	0	2	9	3	0	1	29	5	0	3	6	4	0
1:30 PM	4	38	2	0	3	5	2	0	1	46	0	0	12	10	2	0
1:45 PM	6	45	1	0	1	8	2	0	0	26	1	0	9	8	3	0
2:00 PM	4	34	4	0	1	9	2	0	1	38	7	0	6	9	2	0
2:15 PM	0	36	1	0	5	2	2	0	1	42	5	0	14	9	7	0
2:30 PM	8	61	0	0	4	6	2	0	2	34	3	0	15	7	8	0
2:45 PM	4	57	5	0	2	8	4	0	1	54	5	0	14	9	2	0
3:00 PM	5	41	3	0	0	10	2	0	1	41	6	0	8	5	1	0
3:15 PM	2	43	2	0	0	9	1	0	0	37	5	0	3	10	2	0
3:30 PM	6	64	3	0	3	11	0	0	1	43	6	0	7	8	3	0
3:45 PM	5	72	6	0	3	7	1	0	2	56	2	0	2	8	6	0
4:00 PM	3	80	3	0	3	10	3	0	1	29	4	0	14	8	5	0
4:15 PM	6	73	2	0	0	11	1	0	1	40	3	0	11	7	9	0
4:30 PM	4	77	6	0	5	5	4	0	0	21	6	0	8	15	4	0
4:45 PM	2	74	6	0	3	9	4	0	1	43	2	0	9	6	2	0
5:00 PM	8	117	4	0	0	8	6	0	1	47	3	0	13	13	4	0
5:15 PM	4	68	0	0	4	3	1	0	0	47	1	0	17	3	1	0
5:30 PM	0	70	1	0	4	10	2	0	2	57	4	0	13	2	1	0
5:45 PM	3	42	4	0	0	5	0	0	1	41	1	0	7	6	5	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
9:15 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:45 AM	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
11:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	2	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0
1:15 PM	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
1:45 PM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
10:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
4:00 PM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Spring St Crossing East Leg	7th St Crossing South Leg	Spring St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	1	1	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	2	3	0	2
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	2	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	1
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	2	0
10:30 AM	0	0	0	1
10:45 AM	1	1	0	2
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	1	0	1	2
11:45 AM	0	0	0	0
12:00 PM	0	3	0	0
12:15 PM	0	2	0	0
12:30 PM	0	1	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	1	0
1:15 PM	0	0	0	3
1:30 PM	0	1	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	1
2:30 PM	1	1	0	1
2:45 PM	0	2	0	2
3:00 PM	0	2	0	0
3:15 PM	0	2	1	1
3:30 PM	0	3	0	1
3:45 PM	0	2	0	0
4:00 PM	0	1	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	1	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	4
5:45 PM	0	2	0	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Spring St Crossing East Leg	7th St Crossing South Leg	Spring St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	1	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	2	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	1	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	1
2:30 PM	0	2	0	0
2:45 PM	0	1	0	1
3:00 PM	0	0	0	0
3:15 PM	0	1	0	0
3:30 PM	0	0	0	0
3:45 PM	0	1	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	1	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 42 7th St & Spring St**
Date **10/08/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Spring St Westbound				7th St Northbound				Spring St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	6	0	0	0	1	0	0	0	8	2	0	0	0	1	0
6:15 AM	6	3	0	0	1	2	0	0	0	22	7	0	0	3	2	0
6:30 AM	2	12	0	0	1	1	1	0	0	49	1	0	4	0	1	0
6:45 AM	2	12	0	0	0	3	0	0	0	56	2	0	0	3	1	0
7:00 AM	1	20	2	0	1	2	0	0	0	95	2	0	0	6	3	0
7:15 AM	5	39	0	0	0	3	1	0	0	83	5	0	9	1	5	0
7:30 AM	4	45	2	0	4	6	2	0	2	72	9	0	6	7	2	0
7:45 AM	8	31	1	0	1	6	0	0	2	111	4	0	12	10	5	0
8:00 AM	7	16	3	0	0	8	1	0	2	47	7	0	6	6	1	0
8:15 AM	1	20	2	0	1	2	0	0	0	44	5	0	1	3	4	0
8:30 AM	4	18	2	0	5	8	1	0	0	72	3	0	4	1	6	0
8:45 AM	6	32	3	0	3	6	1	0	0	71	3	0	9	2	4	0
9:00 AM	3	24	0	0	0	8	1	0	3	31	1	0	3	6	5	0
9:15 AM	2	26	2	0	3	8	1	0	2	40	2	0	9	7	1	0
9:30 AM	3	20	1	0	4	6	0	0	2	56	6	0	7	4	3	0
9:45 AM	6	30	2	0	3	4	1	0	1	36	4	0	8	10	2	0
10:00 AM	5	33	2	0	2	4	2	0	1	29	5	0	3	5	2	0
10:15 AM	2	25	0	0	2	8	1	0	0	37	3	0	6	4	7	0
10:30 AM	7	22	1	0	0	6	0	0	0	35	6	0	2	2	3	0
10:45 AM	3	34	3	0	1	6	3	0	3	26	4	0	2	3	6	0
11:00 AM	6	36	1	0	1	8	4	0	0	21	4	0	12	7	3	0
11:15 AM	5	23	0	0	4	10	1	0	2	30	1	0	5	8	8	0
11:30 AM	3	30	1	0	2	6	3	0	0	42	2	0	5	5	1	0
11:45 AM	6	44	7	0	6	8	4	0	0	51	3	0	4	6	10	0
12:00 PM	9	59	2	0	1	5	3	0	2	36	5	0	9	10	3	0
12:15 PM	8	38	6	0	1	9	1	0	1	38	5	0	12	6	3	0
12:30 PM	2	46	0	0	4	5	1	0	4	43	4	0	4	9	6	0
12:45 PM	6	42	7	0	4	7	4	0	0	41	4	0	9	7	2	0
1:00 PM	7	57	1	0	1	7	0	0	1	36	4	0	12	8	3	0
1:15 PM	11	40	4	0	2	9	4	0	1	29	5	0	3	7	4	0
1:30 PM	4	39	2	0	3	5	2	0	1	47	0	0	12	11	2	0
1:45 PM	7	47	1	0	1	8	2	0	0	26	1	0	9	8	3	0
2:00 PM	4	35	4	0	1	9	2	0	1	38	7	0	6	9	2	0
2:15 PM	0	38	1	0	5	3	2	0	1	43	5	0	14	9	7	0
2:30 PM	8	68	0	0	4	6	2	0	2	34	3	0	15	7	8	0
2:45 PM	4	57	5	0	2	8	4	0	1	54	5	0	14	10	3	0
3:00 PM	5	41	3	0	0	10	2	0	1	42	6	0	8	5	1	0
3:15 PM	2	44	2	0	0	9	1	0	0	37	5	0	3	10	2	0
3:30 PM	6	64	4	0	3	11	0	0	1	44	6	0	7	8	3	0
3:45 PM	5	72	6	0	3	7	1	0	2	57	2	0	2	9	6	0
4:00 PM	4	82	3	0	3	10	4	0	1	30	4	0	14	8	5	0
4:15 PM	6	76	2	0	0	11	1	0	1	41	3	0	11	7	10	0
4:30 PM	4	77	6	0	5	5	4	0	0	22	6	0	8	15	4	0
4:45 PM	2	74	6	0	3	9	4	0	1	45	3	0	9	6	2	0
5:00 PM	8	119	4	0	0	8	6	0	1	49	4	0	13	13	5	0
5:15 PM	4	69	0	0	4	3	1	0	0	47	1	0	17	3	1	0
5:30 PM	0	71	1	0	4	10	2	0	2	58	4	0	13	2	1	0
5:45 PM	3	43	4	0	0	5	0	0	1	41	1	0	7	6	5	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Fisher St Westbound				7th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	1	0	2	0	5	0	17	10	0	0	0	0	0	0
6:15 AM	0	8	2	0	7	0	6	0	2	23	0	0	0	0	0	0
6:30 AM	0	9	2	0	6	0	8	0	9	35	0	0	1	0	1	0
6:45 AM	0	15	6	0	11	0	9	0	12	45	1	0	0	0	0	0
7:00 AM	1	10	4	0	19	1	12	0	12	61	0	0	1	1	0	0
7:15 AM	0	24	18	0	14	0	18	0	25	79	0	0	0	0	0	0
7:30 AM	0	25	22	0	24	0	24	0	35	56	0	0	0	0	0	0
7:45 AM	0	27	20	0	34	1	32	0	51	77	1	0	0	1	0	0
8:00 AM	0	19	6	0	17	1	29	0	20	44	0	0	1	0	1	0
8:15 AM	0	14	3	0	12	0	20	0	20	33	1	0	1	1	1	0
8:30 AM	3	30	3	0	13	0	20	0	20	47	0	0	1	1	0	0
8:45 AM	1	29	11	0	18	0	30	0	42	61	0	0	0	1	1	0
9:00 AM	0	31	11	0	6	0	21	0	18	24	0	0	0	1	0	0
9:15 AM	0	23	1	0	12	0	22	0	12	32	0	0	0	0	0	0
9:30 AM	1	21	6	0	13	0	27	0	21	52	1	0	0	0	0	0
9:45 AM	0	17	8	0	15	1	28	0	28	28	0	0	0	1	0	0
10:00 AM	0	15	12	0	10	0	32	0	20	24	0	0	1	0	0	0
10:15 AM	0	14	7	0	13	0	33	0	15	31	0	0	0	0	1	0
10:30 AM	1	23	11	0	14	0	24	0	13	37	0	0	0	0	1	0
10:45 AM	0	15	16	0	10	0	27	0	23	34	1	0	1	0	0	0
11:00 AM	0	27	13	0	15	0	38	0	16	24	0	0	1	0	0	0
11:15 AM	0	26	10	0	9	0	38	0	14	15	0	0	1	1	0	0
11:30 AM	0	21	13	0	11	0	31	0	27	30	0	0	0	0	0	0
11:45 AM	0	38	26	0	8	0	29	0	34	40	1	0	1	0	0	0
12:00 PM	0	44	18	0	20	0	42	0	33	27	1	0	1	0	0	0
12:15 PM	0	39	22	0	9	0	50	0	27	32	0	0	0	0	0	0
12:30 PM	1	32	13	0	14	0	39	1	32	26	1	0	1	0	0	0
12:45 PM	1	31	14	0	8	0	37	0	36	33	0	0	1	0	0	0
1:00 PM	0	34	16	0	6	0	46	0	25	21	2	0	1	0	1	0
1:15 PM	0	24	8	0	12	0	39	0	23	26	0	0	0	0	0	0
1:30 PM	0	34	12	0	11	0	32	0	20	39	0	0	1	0	0	0
1:45 PM	0	32	6	0	15	0	32	0	28	41	0	0	0	0	0	0
2:00 PM	0	41	15	0	12	0	45	0	27	22	0	0	0	0	0	0
2:15 PM	1	24	20	0	15	0	26	0	20	35	0	0	0	0	1	0
2:30 PM	0	68	27	0	17	1	52	0	20	40	0	0	0	0	0	0
2:45 PM	0	43	18	0	24	0	58	0	27	34	0	0	0	0	0	0
3:00 PM	1	51	21	0	22	0	50	0	32	22	0	0	0	0	0	0
3:15 PM	0	42	15	0	10	0	38	0	32	22	1	0	1	0	0	0
3:30 PM	1	61	17	0	8	0	48	0	14	45	0	0	3	0	0	0
3:45 PM	0	63	20	0	7	0	34	0	31	45	0	0	1	0	0	0
4:00 PM	0	79	24	0	7	0	40	0	45	35	0	0	0	0	0	0
4:15 PM	0	58	19	0	8	0	51	0	28	31	1	0	0	0	0	0
4:30 PM	0	60	14	0	12	0	37	0	21	33	0	0	1	1	0	0
4:45 PM	0	64	25	0	17	0	38	0	17	35	1	0	0	0	0	0
5:00 PM	1	97	25	0	11	0	45	0	26	35	1	0	1	1	0	0
5:15 PM	0	55	25	0	14	0	49	0	22	39	1	0	0	0	0	0
5:30 PM	3	43	16	0	14	0	30	0	20	35	0	0	1	0	0	0
5:45 PM	0	39	20	0	9	0	27	0	20	35	0	0	2	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Fisher St Westbound				7th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0
9:15 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0
9:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:15 AM	0	2	1	0	0	0	0	0	1	2	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
10:45 AM	0	1	1	0	2	0	1	0	0	2	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
1:00 PM	0	2	1	0	0	0	0	0	0	2	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0
2:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
3:00 PM	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Fisher St Westbound				7th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	1	5	0	0	0	1	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	2	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0
4:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Fisher St Crossing East Leg	7th St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	1
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	1
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	1	0	1
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	1	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	1
5:15 PM	0	1	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Fisher St Crossing East Leg	7th St Crossing South Leg	Fisher St Crossing West Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	1	1	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	1	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 48 7th St & Fisher St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Fisher St Westbound				7th St Northbound				Fisher St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	5	1	0	2	0	5	0	17	10	0	0	0	0	0	0
6:15 AM	0	8	2	0	7	0	6	0	2	23	0	0	0	0	0	0
6:30 AM	0	10	2	0	6	0	8	0	9	35	0	0	1	0	1	0
6:45 AM	0	15	6	0	11	0	10	0	13	46	1	0	0	0	0	0
7:00 AM	1	10	4	0	19	1	12	0	12	62	0	0	1	1	0	0
7:15 AM	0	25	23	0	14	0	19	0	25	80	0	0	0	0	0	0
7:30 AM	0	25	24	0	24	0	24	0	36	56	0	0	0	0	0	0
7:45 AM	0	28	20	0	36	1	32	0	51	77	1	0	0	1	0	0
8:00 AM	0	20	6	0	18	1	29	0	20	46	0	0	1	0	1	0
8:15 AM	0	14	4	0	12	0	21	0	20	34	1	0	1	1	1	0
8:30 AM	3	30	3	0	13	0	20	0	20	47	0	0	1	1	0	0
8:45 AM	1	29	11	0	18	0	31	0	42	61	0	0	0	1	1	0
9:00 AM	0	32	12	0	6	0	22	0	18	26	0	0	0	1	0	0
9:15 AM	0	24	2	0	13	1	22	0	12	33	0	0	0	0	0	0
9:30 AM	1	21	6	0	13	0	29	0	22	53	1	0	0	1	0	0
9:45 AM	0	18	8	0	15	2	28	0	28	28	0	0	0	1	0	0
10:00 AM	0	16	12	0	10	0	32	0	20	24	0	0	1	1	0	0
10:15 AM	0	16	8	0	13	0	33	0	16	33	0	0	0	0	1	0
10:30 AM	1	23	11	0	14	0	24	0	13	37	0	0	1	0	1	0
10:45 AM	0	16	17	0	12	0	28	0	23	36	1	0	1	0	0	0
11:00 AM	0	28	13	0	15	0	38	0	16	25	0	0	1	0	0	0
11:15 AM	1	26	11	0	9	0	38	0	14	16	0	0	2	1	0	0
11:30 AM	0	22	13	0	11	0	31	0	27	30	0	0	0	0	0	0
11:45 AM	0	39	26	0	8	0	29	0	34	42	1	0	1	0	0	0
12:00 PM	0	45	18	0	21	0	42	0	33	27	1	0	1	0	0	0
12:15 PM	0	39	23	0	9	0	50	0	27	33	0	0	0	0	0	0
12:30 PM	1	33	14	0	14	0	40	1	33	27	1	0	1	0	0	0
12:45 PM	1	31	14	0	9	0	37	0	37	33	0	0	1	0	0	0
1:00 PM	0	36	17	0	6	0	46	0	25	23	2	0	1	0	1	0
1:15 PM	0	24	8	0	12	0	39	0	23	26	0	0	0	0	0	0
1:30 PM	0	36	13	0	11	0	33	0	20	39	0	0	1	0	0	0
1:45 PM	0	33	6	0	15	0	32	0	29	41	0	0	0	0	0	0
2:00 PM	0	42	15	0	12	0	45	0	27	23	0	0	0	0	0	0
2:15 PM	1	25	22	0	15	0	27	0	20	37	0	0	0	0	1	0
2:30 PM	0	69	33	0	17	1	53	0	20	40	0	0	0	0	0	0
2:45 PM	0	43	20	0	24	0	58	0	28	36	0	0	0	0	0	0
3:00 PM	1	54	21	0	24	0	50	0	33	23	0	0	0	0	0	0
3:15 PM	0	43	16	0	10	0	38	0	32	22	1	0	1	0	0	0
3:30 PM	1	62	17	0	8	0	48	0	14	46	0	0	3	0	0	0
3:45 PM	0	64	20	0	7	0	35	0	32	46	0	0	1	0	0	0
4:00 PM	0	80	24	0	7	0	42	0	47	36	0	0	0	0	0	0
4:15 PM	0	60	20	0	8	0	51	0	28	32	1	0	0	0	0	0
4:30 PM	0	60	14	0	12	0	39	0	21	34	0	0	1	1	0	0
4:45 PM	0	65	25	0	17	0	38	0	17	36	1	0	0	0	0	0
5:00 PM	1	97	25	0	11	0	46	0	26	38	1	0	1	1	0	0
5:15 PM	0	55	25	0	14	0	49	0	22	40	1	0	0	0	0	0
5:30 PM	3	43	17	0	14	0	30	0	20	35	0	0	1	0	0	0
5:45 PM	0	39	20	0	10	0	28	0	20	35	0	0	2	0	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southwestbound				U.S. 41 Northwestbound				Grove St Northeastbound				U.S. 41 Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	4	2	0	0	4	39	3	0	0	11	2	0	1	17	17	0
6:15 AM	5	5	0	0	10	43	3	0	5	13	2	0	3	15	2	0
6:30 AM	7	7	3	0	19	69	3	0	2	16	3	0	4	23	8	0
6:45 AM	10	10	3	0	23	82	4	0	5	22	0	0	1	40	13	0
7:00 AM	15	9	1	0	53	106	6	0	5	23	2	0	3	32	7	0
7:15 AM	19	14	5	0	32	97	6	0	8	50	1	0	12	49	18	0
7:30 AM	31	12	6	0	28	141	9	0	7	44	7	0	14	90	29	1
7:45 AM	33	17	5	0	21	159	10	0	8	51	4	0	16	112	40	0
8:00 AM	29	17	2	0	14	99	9	0	9	22	7	0	10	78	21	0
8:15 AM	19	12	2	0	16	119	4	0	10	20	3	0	6	79	23	0
8:30 AM	26	23	6	0	28	121	11	0	14	26	3	0	1	82	20	0
8:45 AM	25	25	0	0	29	130	9	0	24	48	4	0	7	92	26	0
9:00 AM	27	21	6	0	10	112	6	0	9	14	4	0	8	67	11	0
9:15 AM	26	14	1	0	18	95	8	0	10	22	2	0	6	81	9	0
9:30 AM	29	10	11	0	24	111	3	0	5	37	2	0	1	83	23	0
9:45 AM	25	17	16	0	12	108	5	0	10	17	2	0	5	95	17	0
10:00 AM	31	12	2	0	13	109	4	0	5	14	6	0	6	76	12	0
10:15 AM	32	7	7	0	13	89	8	0	8	19	1	0	6	96	15	0
10:30 AM	26	18	2	0	14	109	6	0	10	21	2	0	6	102	18	0
10:45 AM	24	9	5	0	19	96	3	0	5	20	6	0	4	93	18	0
11:00 AM	33	23	8	0	7	86	9	0	5	11	10	0	8	87	19	0
11:15 AM	31	26	10	0	4	95	4	0	4	11	4	0	7	100	12	0
11:30 AM	26	17	9	0	15	99	3	0	8	17	3	0	8	126	25	0
11:45 AM	42	21	10	0	17	113	7	0	9	25	16	0	11	116	31	0
12:00 PM	46	32	6	0	9	119	10	0	6	15	9	0	6	117	33	0
12:15 PM	47	25	11	0	9	115	9	0	9	27	9	0	5	143	27	0
12:30 PM	39	25	8	0	11	119	8	0	14	23	2	0	10	119	31	0
12:45 PM	32	22	11	0	8	106	11	0	18	22	6	0	13	134	28	0
1:00 PM	41	29	13	0	14	116	12	1	6	14	4	0	8	125	18	2
1:15 PM	41	18	5	0	5	107	4	0	14	23	3	0	9	127	19	0
1:30 PM	35	24	6	0	15	125	10	0	10	19	3	0	12	133	31	0
1:45 PM	30	23	14	0	9	115	14	0	10	28	5	0	9	114	28	0
2:00 PM	43	28	10	0	6	109	10	0	12	27	3	0	12	148	20	0
2:15 PM	19	22	15	0	4	117	9	0	9	24	8	0	12	127	23	0
2:30 PM	54	45	19	0	16	105	9	0	9	32	10	0	16	121	21	0
2:45 PM	57	28	13	0	5	117	13	0	10	29	13	0	10	93	23	0
3:00 PM	56	34	15	0	5	103	6	0	11	25	5	0	7	112	21	0
3:15 PM	34	29	20	0	9	105	10	0	10	25	9	0	11	134	22	0
3:30 PM	48	43	16	0	15	122	10	0	12	24	6	0	10	143	22	0
3:45 PM	44	37	27	0	9	98	13	0	20	40	4	0	13	150	30	0
4:00 PM	45	53	21	0	6	119	12	0	21	32	5	0	13	156	30	0
4:15 PM	37	43	21	0	7	137	16	0	15	35	11	0	13	170	24	0
4:30 PM	45	39	23	0	10	138	9	0	19	27	6	0	10	169	17	0
4:45 PM	45	41	18	0	7	152	16	0	17	28	8	0	13	168	14	0
5:00 PM	65	50	23	0	12	149	26	0	26	25	6	0	9	172	22	0
5:15 PM	48	38	10	0	10	123	18	0	22	27	3	0	11	161	22	0
5:30 PM	32	26	16	0	10	115	13	0	10	22	3	0	7	145	20	0
5:45 PM	26	30	10	0	17	115	3	0	11	25	3	0	9	143	20	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southwestbound				U.S. 41 Northwestbound				Grove St Northeastbound				U.S. 41 Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	1	0	0	0	1	1	0	0	0	0	0	0	0	3	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	0	0	1	0	0	1	1	0	0
7:30 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0
7:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	2	1	0
8:00 AM	1	1	0	0	0	3	0	0	0	1	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	3	9	0	0
9:00 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0
9:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0
9:30 AM	1	1	0	0	0	3	0	0	0	0	0	0	0	3	1	0
9:45 AM	0	0	0	0	0	6	0	0	0	0	0	0	1	5	0	0
10:00 AM	0	1	0	0	0	4	0	0	1	0	1	0	0	3	0	0
10:15 AM	1	2	0	0	1	0	0	0	0	1	0	0	0	1	2	0
10:30 AM	0	0	1	0	0	5	0	0	0	1	0	0	0	2	0	0
10:45 AM	1	1	0	0	0	3	1	0	0	2	0	0	0	4	0	0
11:00 AM	1	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	4	0	0
11:30 AM	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0
11:45 AM	1	0	0	0	0	2	0	0	0	1	0	0	0	10	0	0
12:00 PM	0	1	0	0	0	6	0	0	0	0	0	0	0	4	0	0
12:15 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	3	0	0
12:30 PM	1	1	0	0	0	4	0	0	0	0	1	0	0	5	2	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
1:00 PM	1	0	0	0	1	2	0	0	0	1	0	0	0	2	0	0
1:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
1:30 PM	2	1	0	0	0	1	0	0	0	0	0	0	0	5	0	0
1:45 PM	0	0	1	0	2	2	0	0	0	0	0	0	0	1	0	0
2:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	2	0	0
2:15 PM	0	1	0	0	0	4	0	0	0	0	1	0	0	2	1	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0
2:45 PM	1	0	0	0	0	8	0	0	0	0	0	0	0	8	2	0
3:00 PM	0	0	0	0	0	6	0	0	0	1	0	0	0	2	0	0
3:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0
3:30 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	3	0	0
3:45 PM	0	1	0	0	0	1	0	0	0	0	1	0	0	1	2	0
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
4:15 PM	1	0	1	0	0	2	0	0	0	0	0	0	0	3	0	0
4:30 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	3	0	0
4:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	2	0	0
5:00 PM	0	0	0	0	0	1	0	0	2	1	0	0	0	3	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	5	1	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southwestbound				U.S. 41 Northwestbound				Grove St Northeastbound				U.S. 41 Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	2	0	0	5	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
6:45 AM	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	1	5	0	0	0	0	0	0	0	2	0	0
7:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0
7:30 AM	0	0	0	0	0	9	0	0	0	0	0	0	0	4	0	0
7:45 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	5	0	0
8:00 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	5	0	0
8:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0	0
8:45 AM	0	1	0	0	0	5	0	0	0	0	0	0	0	5	0	0
9:00 AM	0	0	0	0	1	6	0	0	0	0	0	0	0	3	0	0
9:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	10	0	0
9:30 AM	1	0	0	0	0	7	0	0	0	0	0	0	0	3	0	0
9:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0
10:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0
10:15 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	6	0	0
10:30 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0
10:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	6	0	0
11:00 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0
11:15 AM	1	0	0	0	0	3	0	0	0	0	0	0	0	4	0	0
11:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	5	0	0
11:45 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
12:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
12:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0
12:30 PM	0	0	0	0	0	7	0	0	0	0	0	0	0	4	0	0
12:45 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0
1:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0
1:45 PM	0	0	0	0	0	7	0	0	0	0	0	0	0	3	0	0
2:00 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	5	0	0
2:15 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	7	0	0
2:30 PM	1	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0
2:45 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	3	0	0
3:00 PM	0	1	0	0	0	3	0	0	0	1	0	0	0	3	0	0
3:15 PM	0	0	1	0	0	10	0	0	0	0	0	0	0	3	0	0
3:30 PM	0	0	0	0	1	7	0	0	0	0	0	0	0	6	0	0
3:45 PM	1	0	0	0	1	4	0	0	0	1	0	0	0	7	0	0
4:00 PM	1	0	0	0	1	4	0	0	0	0	0	0	0	2	0	0
4:15 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	3	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0	0
4:45 PM	0	0	0	0	2	6	0	0	0	0	0	0	0	5	1	0
5:00 PM	0	1	0	0	0	7	0	0	0	0	0	0	0	1	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing Northeast Leg	U.S. 41 Crossing Southeast Leg	Grove St Crossing Southwest Leg	U.S. 41 Crossing Northwest Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	1	1	1
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	1
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	1
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	0
5:15 PM	0	1	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing Northeast Leg	U.S. 41 Crossing Southeast Leg	Grove St Crossing Southwest Leg	U.S. 41 Crossing Northwest Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	1
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 49 U.S. 41 & Groves St/7th St**
Date **10/09/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southwestbound				U.S. 41 Northwestbound				Grove St Northeastbound				U.S. 41 Southeastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	4	2	2	0	4	44	3	0	0	11	2	0	1	17	17	0
6:15 AM	5	5	0	0	10	49	3	0	5	13	2	0	3	16	2	0
6:30 AM	7	8	3	0	19	71	3	0	2	16	3	0	4	26	8	0
6:45 AM	11	10	3	0	25	87	4	0	5	22	0	0	1	43	13	0
7:00 AM	15	9	1	0	54	111	6	0	5	23	2	0	3	34	7	0
7:15 AM	19	15	6	0	33	98	6	0	8	51	1	0	13	52	18	0
7:30 AM	31	12	6	0	28	155	9	0	7	44	7	0	14	96	29	1
7:45 AM	33	18	5	0	21	166	10	0	8	51	4	0	17	119	41	0
8:00 AM	30	18	2	0	14	107	9	0	9	23	7	0	10	83	22	0
8:15 AM	19	12	2	0	16	122	4	0	10	21	3	0	6	80	23	0
8:30 AM	26	23	6	0	28	122	11	0	14	26	3	0	1	93	20	0
8:45 AM	25	26	0	0	29	136	9	0	24	48	4	0	10	106	26	0
9:00 AM	27	22	6	0	11	120	6	0	9	14	4	0	8	70	12	0
9:15 AM	26	14	1	0	18	102	8	0	10	23	2	0	6	93	9	0
9:30 AM	31	11	11	0	24	121	3	0	5	37	2	0	1	89	24	0
9:45 AM	25	17	16	0	12	117	5	0	10	17	2	0	6	103	17	0
10:00 AM	31	13	2	0	13	117	4	0	6	14	7	0	6	82	12	0
10:15 AM	33	9	7	0	14	94	8	0	8	20	1	0	6	103	17	0
10:30 AM	26	18	3	0	14	118	6	0	10	22	2	0	6	108	18	0
10:45 AM	25	10	5	0	19	102	4	0	5	22	6	0	4	103	18	0
11:00 AM	34	23	8	0	7	92	9	0	5	12	10	0	8	90	19	0
11:15 AM	32	26	10	0	4	101	4	0	4	11	4	0	7	108	12	0
11:30 AM	26	17	10	0	15	103	3	0	8	18	3	0	8	132	25	0
11:45 AM	43	21	10	0	17	118	7	0	9	26	16	0	11	128	31	0
12:00 PM	46	33	6	0	9	128	10	0	6	15	9	0	6	123	33	0
12:15 PM	47	25	11	0	9	121	9	0	9	28	9	0	5	150	27	0
12:30 PM	40	26	8	0	11	130	8	0	14	23	3	0	10	128	33	0
12:45 PM	32	22	11	0	8	112	11	0	18	23	6	0	13	137	28	0
1:00 PM	42	29	13	0	15	123	12	1	6	15	4	0	8	128	18	2
1:15 PM	41	18	5	0	5	112	4	0	14	23	3	0	9	131	19	0
1:30 PM	37	25	6	0	15	128	10	0	10	19	3	0	12	142	31	0
1:45 PM	30	23	15	0	11	124	14	0	10	28	5	0	9	118	28	0
2:00 PM	43	30	10	0	6	113	10	0	12	28	3	0	12	155	20	0
2:15 PM	19	23	15	0	4	126	9	0	9	24	9	0	12	136	24	0
2:30 PM	55	45	19	0	16	110	9	0	9	32	10	0	16	126	21	0
2:45 PM	58	28	13	0	5	127	14	0	10	29	13	0	10	104	25	0
3:00 PM	56	35	15	0	5	112	6	0	11	27	5	0	7	117	21	0
3:15 PM	34	29	21	0	9	119	10	0	10	25	9	0	11	139	22	0
3:30 PM	48	43	16	0	16	135	10	0	12	24	6	0	10	152	22	0
3:45 PM	45	38	27	0	10	103	13	0	20	41	5	0	13	158	32	0
4:00 PM	47	53	21	0	7	123	12	0	21	32	5	0	13	162	30	0
4:15 PM	38	43	22	0	8	141	16	0	15	35	11	0	13	176	24	0
4:30 PM	45	40	23	0	11	142	9	0	19	27	6	0	10	177	17	0
4:45 PM	45	42	18	0	9	160	16	0	17	28	8	0	13	175	15	0
5:00 PM	65	51	23	0	12	157	26	0	28	26	6	0	9	176	22	0
5:15 PM	48	38	10	0	10	124	18	0	22	27	3	0	11	166	23	0
5:30 PM	32	26	16	0	10	119	13	0	10	22	3	0	7	148	20	0
5:45 PM	27	30	10	0	17	116	3	0	11	25	3	0	9	145	20	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Baraga Ave Westbound				McClellan Ave Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	5	8	0	0	0	0	0	1	18	0	0	0	0	0	0
6:15 AM	0	10	7	0	1	0	1	0	1	31	1	0	0	0	1	0
6:30 AM	0	16	2	0	1	0	0	0	0	42	0	0	0	0	0	0
6:45 AM	1	15	4	0	3	0	3	0	2	63	5	0	3	0	0	0
7:00 AM	1	26	3	0	6	1	0	0	1	107	2	0	0	0	0	0
7:15 AM	1	41	4	0	4	0	2	0	3	139	3	0	0	0	1	0
7:30 AM	5	32	22	0	4	0	5	0	6	129	7	0	0	0	3	0
7:45 AM	3	42	15	0	10	2	0	0	8	133	10	0	3	3	1	0
8:00 AM	7	36	12	0	9	2	4	0	3	89	3	0	5	2	6	0
8:15 AM	7	31	6	0	4	1	5	0	5	88	16	0	6	0	4	0
8:30 AM	7	38	11	0	11	2	5	0	5	111	7	0	7	2	7	0
8:45 AM	14	53	10	0	8	3	1	0	3	149	7	0	3	0	3	0
9:00 AM	17	50	12	0	6	2	5	0	6	96	9	0	13	2	7	0
9:15 AM	11	52	6	0	7	0	4	0	4	95	4	0	13	1	7	0
9:30 AM	16	49	14	0	11	2	4	0	2	89	14	0	10	2	4	0
9:45 AM	16	39	11	0	8	2	4	0	0	107	9	0	11	1	7	0
10:00 AM	14	51	8	0	9	3	2	0	2	76	6	0	12	4	8	0
10:15 AM	17	61	11	0	8	5	1	0	3	101	10	0	17	1	6	0
10:30 AM	20	38	14	0	6	3	5	0	3	74	13	0	13	6	13	0
10:45 AM	13	61	9	0	10	4	3	0	4	74	12	0	16	3	13	0
11:00 AM	25	61	14	0	11	2	3	0	2	78	10	0	25	2	18	0
11:15 AM	25	35	5	0	9	1	3	0	2	82	16	0	25	4	9	0
11:30 AM	22	62	18	0	10	3	4	0	3	83	20	0	18	8	10	0
11:45 AM	19	58	9	0	12	7	3	0	4	88	24	0	21	5	18	0
12:00 PM	16	78	14	0	27	5	4	0	3	101	19	0	28	1	12	0
12:15 PM	22	59	15	0	12	6	3	0	4	90	16	0	21	6	12	0
12:30 PM	21	61	13	0	18	2	7	0	2	83	17	0	17	6	13	0
12:45 PM	20	61	16	0	9	5	2	0	6	86	13	0	24	2	12	0
1:00 PM	20	63	11	0	16	5	2	0	4	75	14	0	26	8	7	0
1:15 PM	18	63	18	0	10	6	5	0	4	79	23	0	17	4	17	0
1:30 PM	16	64	10	0	12	1	2	0	3	83	16	0	23	3	13	0
1:45 PM	20	75	15	0	10	3	3	0	3	95	8	0	24	4	16	0
2:00 PM	12	65	11	0	10	2	4	0	3	75	12	0	19	2	12	0
2:15 PM	15	72	12	0	10	3	7	0	3	95	14	0	18	6	12	0
2:30 PM	18	107	18	0	17	2	5	0	5	84	9	0	23	2	13	0
2:45 PM	22	87	7	0	6	2	5	0	1	102	14	0	22	3	6	0
3:00 PM	16	93	10	0	16	1	8	0	2	100	15	0	21	2	16	0
3:15 PM	22	85	13	0	11	3	6	0	4	82	11	0	30	4	3	0
3:30 PM	16	100	10	0	16	3	4	0	2	81	6	0	22	3	14	0
3:45 PM	20	82	13	0	3	1	10	0	6	117	15	0	25	2	14	0
4:00 PM	23	109	19	0	15	1	5	0	3	112	14	0	25	2	12	0
4:15 PM	15	74	18	0	15	3	7	0	6	100	15	0	25	4	9	0
4:30 PM	22	100	15	0	16	3	5	0	1	89	11	0	39	3	8	0
4:45 PM	18	101	14	0	9	2	6	0	1	98	8	0	23	6	9	0
5:00 PM	19	132	14	0	17	4	6	0	3	103	6	0	22	1	8	0
5:15 PM	16	109	14	0	11	1	6	0	1	83	5	0	20	3	6	0
5:30 PM	12	97	9	0	7	1	3	0	1	74	8	0	25	1	7	0
5:45 PM	11	87	8	0	6	1	2	0	3	87	6	0	10	2	7	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Baraga Ave Westbound				McClellan Ave Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	1	0	0	0	0	0	0	2	0	0	0	0	1	0
7:45 AM	0	3	0	0	1	0	0	0	0	0	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0
8:30 AM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	1	0	0	2	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	1	1	0	0	1	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9:30 AM	1	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0
9:45 AM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:00 AM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	1	0	0	1	0	0	0	0	2	1	0	0	0	0	0
10:30 AM	0	3	2	0	0	0	1	0	0	4	1	0	0	0	0	0
10:45 AM	0	3	0	0	1	0	0	0	0	2	0	0	0	0	0	0
11:00 AM	0	1	0	0	2	1	0	0	0	2	1	0	2	1	0	0
11:15 AM	0	3	1	0	0	0	2	0	0	2	1	0	1	0	0	0
11:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:15 PM	0	3	1	0	1	0	0	0	1	2	1	0	0	0	0	0
12:30 PM	0	3	0	0	1	0	0	0	0	3	1	0	0	0	0	0
12:45 PM	0	2	0	0	1	0	0	0	0	3	0	0	0	0	0	0
1:00 PM	0	3	1	0	0	0	0	0	0	3	0	0	0	0	0	0
1:15 PM	0	0	2	0	2	0	0	0	0	2	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	1	0	0	2	0	0	2	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0
3:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	1	0	0	0	0	3	1	0	0	0	0	0
3:30 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:45 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0
4:00 PM	1	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0
5:00 PM	1	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Baraga Ave Westbound				McClellan Ave Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	0	2	0	0	4	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0
9:15 AM	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0
9:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
10:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
1:15 PM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
1:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
4:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Baraga Ave Crossing East Leg	McClellan Ave Crossing South Leg	Baraga Ave Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	1	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	1	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	1	0
10:30 AM	0	0	0	0
10:45 AM	0	1	0	0
11:00 AM	0	0	0	0
11:15 AM	0	2	2	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	2	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	1	0	0	0
1:15 PM	0	2	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	1	0	0
2:15 PM	0	1	1	0
2:30 PM	0	1	0	1
2:45 PM	0	0	0	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	1	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	1	0	0	1
4:45 PM	1	0	0	1
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 64 McClellan Ave & Baraga Ave**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Baraga Ave Westbound				McClellan Ave Northbound				Baraga Ave Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	8	8	0	0	0	0	0	1	18	0	0	0	0	0	0
6:15 AM	0	10	7	0	1	0	1	0	1	32	1	0	0	0	1	0
6:30 AM	0	17	2	0	1	0	0	0	0	42	0	0	0	0	0	0
6:45 AM	1	16	6	0	3	0	5	0	2	63	5	0	3	0	0	0
7:00 AM	1	26	3	0	6	1	0	0	1	110	2	0	0	0	0	0
7:15 AM	1	42	4	0	4	0	3	0	3	142	3	0	0	0	1	0
7:30 AM	5	36	23	0	4	0	5	0	6	132	7	0	0	0	4	0
7:45 AM	3	45	15	0	11	2	0	0	8	133	11	0	3	3	1	0
8:00 AM	7	37	12	0	9	2	4	0	4	91	3	0	5	2	6	0
8:15 AM	7	32	6	0	4	1	5	0	5	89	17	0	7	0	4	0
8:30 AM	7	39	13	0	11	2	7	0	5	116	7	0	7	2	7	0
8:45 AM	14	54	10	0	10	3	1	0	3	151	7	0	3	0	3	0
9:00 AM	17	51	12	0	6	3	6	0	8	99	9	0	14	2	7	0
9:15 AM	11	52	6	0	9	0	4	0	4	95	6	0	13	1	7	0
9:30 AM	17	51	14	0	11	2	4	0	2	92	14	0	11	2	4	0
9:45 AM	16	43	11	0	8	2	4	0	0	110	9	0	11	1	7	0
10:00 AM	14	54	9	0	9	3	2	0	3	77	6	0	12	4	8	0
10:15 AM	17	64	11	0	9	5	1	0	3	103	11	0	17	1	6	0
10:30 AM	20	41	16	0	6	3	6	0	3	78	14	0	13	6	13	0
10:45 AM	13	64	9	0	11	4	3	0	4	78	12	0	16	3	13	0
11:00 AM	25	63	14	0	13	3	3	0	2	81	11	0	27	3	18	0
11:15 AM	25	38	6	0	9	1	5	0	2	84	17	0	26	4	9	0
11:30 AM	22	62	19	0	10	3	4	0	3	83	20	0	19	8	10	0
11:45 AM	19	59	9	0	12	7	3	0	5	91	24	0	21	5	18	0
12:00 PM	16	78	14	0	27	5	4	0	3	106	19	0	28	1	12	0
12:15 PM	22	63	17	0	13	6	3	0	5	93	17	0	21	6	12	0
12:30 PM	21	65	13	0	19	2	7	0	2	88	18	0	17	6	13	0
12:45 PM	20	64	16	0	10	5	2	0	6	90	13	0	25	2	12	0
1:00 PM	20	66	12	0	16	5	2	0	5	79	14	0	26	8	7	0
1:15 PM	18	63	21	0	12	6	6	0	4	82	24	0	17	4	17	0
1:30 PM	17	64	10	0	12	1	3	0	3	85	16	0	23	3	13	0
1:45 PM	20	75	15	0	10	3	4	0	3	97	8	0	26	4	16	0
2:00 PM	12	65	11	0	10	2	4	0	3	78	12	0	20	2	12	0
2:15 PM	15	72	12	0	10	3	7	0	4	95	16	0	18	6	12	0
2:30 PM	18	111	18	0	17	2	5	0	5	85	10	0	24	2	13	0
2:45 PM	22	88	7	0	6	2	5	0	3	105	14	0	22	3	6	0
3:00 PM	16	93	11	0	16	1	8	0	2	101	15	0	21	2	17	0
3:15 PM	22	85	14	0	12	3	7	0	4	85	12	0	30	4	3	0
3:30 PM	16	103	10	0	16	3	4	0	2	82	6	0	22	3	14	0
3:45 PM	20	82	14	0	3	1	10	0	6	120	16	0	25	2	14	0
4:00 PM	24	112	20	0	15	1	5	0	3	112	14	0	26	2	13	0
4:15 PM	15	75	18	0	15	3	7	0	6	105	16	0	25	4	9	0
4:30 PM	22	100	15	0	16	3	5	0	1	93	11	0	39	3	8	0
4:45 PM	18	101	14	0	9	2	7	0	2	101	8	0	24	7	9	0
5:00 PM	20	132	15	0	17	4	6	0	3	108	6	0	22	1	8	0
5:15 PM	16	110	14	0	11	1	6	0	1	84	5	0	20	3	6	0
5:30 PM	12	97	9	0	7	1	3	0	1	75	9	0	25	1	7	0
5:45 PM	11	89	8	0	6	1	2	0	3	88	6	0	11	2	7	0

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				US 41 Westbound				McClellan Ave Northbound				US 41 Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	5	0	0	7	51	0	15	15	18	0	0	4	18	0	1
6:15 AM	2	9	0	0	12	58	0	14	17	23	0	0	9	13	0	4
6:30 AM	4	14	0	0	26	71	0	11	12	29	0	0	7	34	0	5
6:45 AM	9	18	0	0	27	55	0	20	19	35	0	0	18	45	0	7
7:00 AM	8	25	0	0	55	88	0	15	16	86	0	0	22	52	0	13
7:15 AM	7	31	0	0	51	99	0	21	24	83	0	0	19	81	0	12
7:30 AM	9	36	0	0	68	144	0	31	43	105	0	0	28	109	0	9
7:45 AM	19	20	0	0	48	142	0	34	35	96	0	0	20	161	0	24
8:00 AM	13	31	0	0	39	107	0	24	25	44	0	0	28	69	0	9
8:15 AM	17	24	0	0	43	117	0	26	31	71	0	0	36	77	0	7
8:30 AM	15	36	0	0	50	120	0	16	21	90	0	0	34	88	0	14
8:45 AM	14	51	0	0	47	126	0	33	39	102	0	0	25	81	0	14
9:00 AM	19	41	0	0	43	112	0	21	31	59	0	0	31	67	0	18
9:15 AM	26	40	0	0	39	102	0	15	18	55	0	0	26	61	0	21
9:30 AM	23	37	0	0	65	108	0	27	35	53	0	0	29	97	0	18
9:45 AM	19	46	0	0	40	123	0	32	39	71	0	0	37	100	0	16
10:00 AM	24	44	0	0	37	118	0	29	38	59	0	0	29	92	0	23
10:15 AM	23	40	0	0	36	111	0	12	22	59	0	0	29	91	0	20
10:30 AM	30	38	0	0	35	128	0	20	29	51	0	0	44	93	0	21
10:45 AM	34	48	0	0	30	97	0	20	30	65	0	0	41	79	0	21
11:00 AM	20	53	0	0	37	98	0	16	27	52	0	0	42	98	0	16
11:15 AM	24	49	0	0	40	141	0	28	45	49	0	0	42	93	0	22
11:30 AM	26	39	0	0	44	131	0	25	44	71	0	0	53	100	0	25
11:45 AM	48	65	0	0	48	143	0	29	40	74	0	0	44	110	0	34
12:00 PM	33	61	0	0	43	136	0	32	47	66	0	0	49	119	0	22
12:15 PM	31	46	0	0	34	117	0	19	34	67	0	0	45	133	0	27
12:30 PM	27	47	0	0	37	117	0	28	39	67	0	0	37	135	0	26
12:45 PM	27	69	0	0	50	120	0	35	40	59	0	0	53	117	0	29
1:00 PM	34	54	0	0	52	141	0	22	38	45	0	0	50	127	0	27
1:15 PM	36	41	0	0	36	141	0	27	44	56	1	0	57	136	0	37
1:30 PM	31	67	0	0	40	118	0	18	36	72	0	0	54	137	0	34
1:45 PM	32	63	0	0	31	128	0	22	35	68	0	0	48	123	0	25
2:00 PM	34	56	0	0	41	144	0	44	60	55	0	0	57	136	0	32
2:15 PM	33	80	0	0	36	130	0	26	37	70	0	0	57	126	0	18
2:30 PM	39	88	0	0	39	152	0	24	41	67	0	0	68	143	0	36
2:45 PM	37	80	0	0	46	137	0	25	42	77	0	0	72	139	0	40
3:00 PM	46	78	0	0	30	140	0	25	46	66	0	0	65	155	0	36
3:15 PM	33	86	0	0	31	140	0	24	42	65	0	0	70	135	0	33
3:30 PM	35	91	0	0	39	161	0	25	50	58	0	0	83	150	0	33
3:45 PM	50	83	0	0	44	153	0	31	53	107	0	0	58	144	0	40
4:00 PM	36	97	0	0	46	155	0	30	44	70	0	0	79	180	0	38
4:15 PM	38	73	0	0	41	140	0	31	45	75	0	0	66	174	0	33
4:30 PM	62	81	0	0	41	184	0	35	52	54	0	0	81	201	0	45
4:45 PM	54	88	0	0	34	181	0	21	42	78	0	0	66	188	0	45
5:00 PM	49	98	0	0	25	190	0	23	42	61	0	0	84	206	0	49
5:15 PM	46	92	0	0	19	144	0	30	47	56	0	0	87	181	0	46
5:30 PM	36	86	0	0	24	137	0	30	53	76	0	0	63	149	0	37
5:45 PM	30	63	0	0	22	138	0	27	42	60	0	0	55	139	0	31

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				US 41 Westbound				McClellan Ave Northbound				US 41 Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 AM	0	1	0	0	0	4	0	0	0	1	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	1	0	0	1	0	0	0	1	2	0	0
6:45 AM	0	0	0	0	0	2	0	0	1	0	0	0	1	1	0	0
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0
7:15 AM	1	2	0	0	0	1	0	1	1	1	0	0	1	2	0	1
7:30 AM	1	2	0	0	0	1	0	0	1	3	0	0	1	3	0	1
7:45 AM	1	0	0	0	0	0	0	0	1	1	0	0	1	5	0	2
8:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	2	2	0	0
8:15 AM	0	1	0	0	1	2	0	2	0	1	0	0	0	1	0	0
8:30 AM	0	2	0	0	0	3	0	0	0	2	0	0	2	1	0	2
8:45 AM	0	1	0	0	1	1	0	1	1	1	0	0	0	1	0	0
9:00 AM	2	0	0	0	0	6	0	0	0	1	0	0	3	0	0	1
9:15 AM	0	0	0	0	2	2	0	0	0	2	0	0	2	5	0	1
9:30 AM	0	2	0	0	2	2	0	0	0	2	0	0	4	3	0	0
9:45 AM	1	2	0	0	0	4	0	1	1	0	0	0	2	1	0	0
10:00 AM	1	1	0	0	1	4	0	1	1	1	0	0	3	3	0	1
10:15 AM	0	2	0	0	1	5	0	2	3	2	0	0	3	2	0	0
10:30 AM	3	1	0	0	1	1	0	3	2	4	0	0	0	11	0	2
10:45 AM	0	1	0	0	0	2	0	0	1	3	0	0	2	1	0	0
11:00 AM	3	4	0	0	0	1	0	1	1	1	0	0	0	1	0	1
11:15 AM	1	1	0	0	0	1	0	0	0	2	0	0	0	3	0	1
11:30 AM	1	0	0	0	2	5	0	1	1	1	0	0	1	2	0	0
11:45 AM	0	1	0	0	2	3	0	1	0	1	0	0	0	1	0	0
12:00 PM	0	1	0	0	1	2	0	0	0	2	0	0	0	2	0	0
12:15 PM	0	1	0	0	1	2	0	0	0	2	0	0	1	3	0	0
12:30 PM	0	2	0	0	1	2	0	1	1	4	0	0	1	1	0	0
12:45 PM	0	3	0	0	1	3	0	0	1	0	0	0	1	2	0	0
1:00 PM	0	3	0	0	1	1	0	0	0	4	0	0	0	1	0	0
1:15 PM	0	0	0	0	3	3	0	0	1	1	0	0	0	2	0	0
1:30 PM	2	0	0	0	0	3	0	0	0	1	0	0	1	3	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	1	5	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	1	0	0
2:15 PM	2	0	0	0	0	1	0	0	0	3	0	0	0	2	0	0
2:30 PM	0	1	0	0	0	3	0	1	2	2	0	0	1	3	0	1
2:45 PM	0	0	0	0	3	5	0	2	0	1	0	0	0	4	0	0
3:00 PM	0	1	0	0	0	3	0	2	2	1	0	0	0	2	0	0
3:15 PM	0	2	0	0	1	5	0	0	0	2	0	0	0	2	0	0
3:30 PM	0	0	0	0	0	5	0	0	0	1	0	0	4	2	0	1
3:45 PM	0	2	0	0	2	5	0	0	0	1	0	0	2	3	0	1
4:00 PM	0	3	0	0	0	2	0	0	0	1	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	2	0	1	2	3	0	0	1	1	0	1
4:30 PM	0	0	0	0	0	5	0	1	1	3	0	0	1	2	0	0
4:45 PM	0	1	0	0	0	2	0	2	1	1	0	0	1	0	0	0
5:00 PM	2	0	0	0	0	2	0	0	0	1	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	1	0	1	1	1	0	0	1	2	0	0
5:30 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				US 41 Westbound				McClellan Ave Northbound				US 41 Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	3	0	1	1	0	0	0	1	1	0	0
6:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	2	0	0	1	1	0	1	0	0	0	0	1	2	0	0
7:00 AM	0	0	0	0	0	4	0	0	0	2	0	0	1	2	0	2
7:15 AM	0	1	0	0	0	4	0	1	2	3	0	0	1	2	0	0
7:30 AM	0	2	0	0	0	4	0	1	2	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	5	0	1	5	1	0	0	0	6	0	0
8:00 AM	1	0	0	0	0	7	0	1	2	2	0	0	0	2	0	1
8:15 AM	0	1	0	0	2	1	0	0	0	0	0	0	0	1	0	0
8:30 AM	1	0	0	0	1	0	0	0	0	1	0	0	2	4	0	0
8:45 AM	0	0	0	0	1	3	0	0	2	2	0	0	0	3	0	0
9:00 AM	0	0	0	0	0	2	0	0	1	1	0	0	1	4	0	0
9:15 AM	0	0	0	0	1	5	0	0	1	0	0	0	1	4	0	0
9:30 AM	1	1	0	0	0	6	0	0	3	1	0	0	1	2	0	2
9:45 AM	0	0	0	0	0	6	0	0	1	0	0	0	0	3	0	0
10:00 AM	1	0	0	0	0	2	0	0	0	1	0	0	0	4	0	1
10:15 AM	2	0	0	0	0	2	0	0	1	0	0	0	0	7	0	2
10:30 AM	0	0	0	0	1	4	0	0	1	1	0	0	1	5	0	0
10:45 AM	0	1	0	0	0	7	0	0	3	0	0	0	2	2	0	0
11:00 AM	0	0	0	0	1	2	0	0	4	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	1	7	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
11:45 AM	0	0	0	0	1	4	0	0	0	0	0	0	1	2	0	1
12:00 PM	1	1	0	0	0	2	0	0	1	2	0	0	0	1	0	1
12:15 PM	1	0	0	0	1	6	0	0	0	0	0	0	0	5	0	0
12:30 PM	1	0	0	0	0	2	0	0	1	1	0	0	1	4	0	2
12:45 PM	1	0	0	0	1	1	0	0	1	1	0	0	2	3	0	2
1:00 PM	0	1	0	0	1	3	0	0	1	1	0	0	1	1	0	0
1:15 PM	1	0	0	0	0	5	0	0	2	0	0	0	1	3	0	1
1:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0
1:45 PM	0	0	0	0	0	2	0	0	3	0	0	0	0	2	0	0
2:00 PM	0	0	0	0	0	6	0	0	1	0	0	0	2	1	0	0
2:15 PM	0	1	0	0	1	1	0	0	1	0	0	0	0	2	0	0
2:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	2	4	0	0
2:45 PM	0	0	0	0	0	5	0	0	4	1	0	0	0	6	0	0
3:00 PM	0	0	0	0	1	6	0	0	0	0	0	0	1	2	0	1
3:15 PM	0	0	0	0	0	4	0	0	2	0	0	0	1	8	0	0
3:30 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	1	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0	0
4:00 PM	0	0	0	0	2	2	0	0	1	0	0	0	3	4	0	0
4:15 PM	0	0	0	0	2	8	0	1	0	0	0	0	0	6	0	0
4:30 PM	1	0	0	0	0	2	0	0	2	1	0	0	0	2	0	0
4:45 PM	0	0	0	0	1	5	0	0	3	3	0	0	0	3	0	0
5:00 PM	0	0	0	0	1	7	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	1	1	0	0	1	1	0	1
5:45 PM	1	0	0	0	0	3	0	0	1	1	0	0	1	1	0	0

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	US 41 Crossing East Leg	McClellan Ave Crossing South Leg	US 41 Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	1
6:45 AM	0	0	0	0
7:00 AM	0	1	0	1
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	1
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	1
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	1	0	1
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	1
2:15 PM	0	0	0	0
2:30 PM	0	0	0	2
2:45 PM	0	0	0	1
3:00 PM	0	0	0	0
3:15 PM	0	0	0	1
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	1
4:30 PM	0	0	0	2
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name **Location 65 McClellan Ave & US 41**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				US 41 Westbound				McClellan Ave Northbound				US 41 Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	2	6	0	0	7	58	0	15	15	18	0	0	4	19	0	1
6:15 AM	2	10	0	0	12	65	0	15	18	24	0	0	10	14	0	4
6:30 AM	5	14	0	0	26	75	0	11	13	29	0	0	8	36	0	5
6:45 AM	9	20	0	0	28	58	0	21	20	35	0	0	20	48	0	7
7:00 AM	8	25	0	0	55	93	0	15	16	88	0	0	25	54	0	15
7:15 AM	8	34	0	0	51	104	0	23	27	87	0	0	21	85	0	13
7:30 AM	10	40	0	0	68	149	0	32	46	108	0	0	29	113	0	10
7:45 AM	20	20	0	0	48	147	0	35	41	98	0	0	21	172	0	26
8:00 AM	15	31	0	0	40	115	0	25	27	47	0	0	30	73	0	10
8:15 AM	17	26	0	0	46	120	0	28	31	72	0	0	36	79	0	7
8:30 AM	16	38	0	0	51	123	0	16	21	93	0	0	38	93	0	16
8:45 AM	14	52	0	0	49	130	0	34	42	105	0	0	25	85	0	14
9:00 AM	21	41	0	0	43	120	0	21	32	61	0	0	35	71	0	19
9:15 AM	26	40	0	0	42	109	0	15	19	57	0	0	29	70	0	22
9:30 AM	24	40	0	0	67	116	0	27	38	56	0	0	34	102	0	20
9:45 AM	20	48	0	0	40	133	0	33	41	71	0	0	39	104	0	16
10:00 AM	26	45	0	0	38	124	0	30	39	61	0	0	32	99	0	25
10:15 AM	25	42	0	0	37	118	0	14	26	61	0	0	32	100	0	22
10:30 AM	33	39	0	0	37	133	0	23	32	56	0	0	45	109	0	23
10:45 AM	34	50	0	0	30	106	0	20	34	68	0	0	45	82	0	21
11:00 AM	23	57	0	0	38	101	0	17	32	53	0	0	42	100	0	17
11:15 AM	25	50	0	0	41	149	0	28	45	51	0	0	42	97	0	23
11:30 AM	27	39	0	0	46	137	0	26	45	72	0	0	54	105	0	25
11:45 AM	48	66	0	0	51	150	0	30	40	75	0	0	45	113	0	35
12:00 PM	34	63	0	0	44	140	0	32	48	70	0	0	49	122	0	23
12:15 PM	32	47	0	0	36	125	0	19	34	69	0	0	46	141	0	27
12:30 PM	28	49	0	0	38	121	0	29	41	72	0	0	39	140	0	28
12:45 PM	28	72	0	0	52	124	0	35	42	60	0	0	56	122	0	31
1:00 PM	34	58	0	0	54	145	0	22	39	50	0	0	51	129	0	27
1:15 PM	37	41	0	0	39	149	0	27	47	57	1	0	58	141	0	38
1:30 PM	33	67	0	0	40	125	0	18	36	73	0	0	55	142	0	35
1:45 PM	32	63	0	0	31	130	0	22	38	70	0	0	49	130	0	25
2:00 PM	34	57	0	0	41	150	0	44	61	58	0	0	59	138	0	32
2:15 PM	35	81	0	0	37	132	0	26	38	73	0	0	57	130	0	18
2:30 PM	39	91	0	0	39	157	0	25	43	69	0	0	71	150	0	37
2:45 PM	37	80	0	0	49	147	0	27	46	79	0	0	72	149	0	40
3:00 PM	46	79	0	0	31	149	0	27	48	67	0	0	66	159	0	37
3:15 PM	33	88	0	0	32	149	0	24	44	67	0	0	71	145	0	33
3:30 PM	35	92	0	0	39	170	0	25	50	59	0	0	87	153	0	34
3:45 PM	50	85	0	0	46	158	0	31	54	108	0	0	60	150	0	41
4:00 PM	36	100	0	0	48	159	0	30	45	71	0	0	82	185	0	38
4:15 PM	38	73	0	0	43	150	0	33	47	78	0	0	67	181	0	34
4:30 PM	63	81	0	0	41	191	0	36	55	58	0	0	82	205	0	45
4:45 PM	54	89	0	0	35	188	0	23	46	82	0	0	67	191	0	45
5:00 PM	51	98	0	0	26	199	0	23	42	64	0	0	84	207	0	50
5:15 PM	46	92	0	0	19	149	0	31	48	57	0	0	88	183	0	46
5:30 PM	36	88	0	0	24	140	0	30	54	77	0	0	64	151	0	38
5:45 PM	31	63	0	0	22	141	0	27	44	62	0	0	56	141	0	31

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Grove St Westbound				McClellan Ave Northbound				Grove St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	5	0	0	0	2	0	0	6	25	1	0	1	3	3	0
6:15 AM	1	10	1	0	2	0	3	0	7	33	0	0	3	7	3	0
6:30 AM	0	13	0	0	1	5	2	0	17	36	0	0	3	10	1	0
6:45 AM	1	11	0	0	2	4	3	0	8	42	1	0	0	17	5	0
7:00 AM	2	26	0	0	4	3	6	0	13	76	3	0	4	11	16	0
7:15 AM	2	40	1	0	4	7	8	0	14	82	3	0	5	17	11	0
7:30 AM	4	31	3	0	4	4	3	0	20	115	10	0	15	21	14	0
7:45 AM	3	23	1	0	9	7	6	0	16	101	8	0	12	27	15	0
8:00 AM	2	26	0	0	6	5	5	0	8	55	5	0	2	13	7	0
8:15 AM	5	33	3	0	4	3	8	0	7	71	5	0	4	16	11	0
8:30 AM	3	40	2	0	4	3	7	0	19	81	4	0	11	9	8	0
8:45 AM	2	43	3	0	4	12	14	0	33	96	15	0	20	8	15	0
9:00 AM	8	37	4	0	2	3	5	0	6	65	8	0	4	15	8	0
9:15 AM	6	30	4	0	5	7	3	0	10	48	2	0	2	9	4	0
9:30 AM	4	40	2	0	5	4	1	0	11	55	4	0	1	12	9	0
9:45 AM	6	30	2	0	3	7	5	0	9	67	3	0	2	16	6	0
10:00 AM	7	30	3	0	3	5	6	0	8	56	5	0	0	7	2	0
10:15 AM	6	43	3	0	1	2	4	0	8	47	1	0	2	5	5	0
10:30 AM	4	30	6	0	4	4	4	0	9	49	1	0	3	9	5	0
10:45 AM	6	52	6	0	0	5	3	0	11	50	4	0	0	9	3	0
11:00 AM	9	49	3	0	5	6	5	0	5	43	0	0	6	5	5	0
11:15 AM	2	41	3	0	5	3	4	0	6	43	5	0	1	8	4	0
11:30 AM	7	38	5	0	5	9	5	0	7	49	2	0	1	12	2	0
11:45 AM	6	41	6	0	6	5	4	0	6	54	2	0	1	15	7	0
12:00 PM	16	59	8	0	5	15	3	0	4	55	1	0	3	4	5	0
12:15 PM	7	50	4	0	5	12	5	0	9	42	2	0	5	14	5	0
12:30 PM	5	45	5	0	6	8	8	0	7	48	6	0	9	14	4	0
12:45 PM	11	54	4	0	7	10	4	0	4	51	4	0	3	17	12	0
1:00 PM	13	56	7	0	7	13	6	0	2	44	5	0	2	11	6	0
1:15 PM	6	44	0	0	5	8	5	0	5	51	6	0	3	8	5	0
1:30 PM	5	53	7	0	3	11	6	0	3	58	2	0	5	11	5	0
1:45 PM	8	55	8	0	4	9	6	0	5	44	1	0	4	7	10	0
2:00 PM	3	61	7	0	4	11	10	0	2	55	5	0	3	7	1	0
2:15 PM	7	74	9	0	9	8	11	0	6	45	3	0	5	9	9	0
2:30 PM	11	90	3	0	3	9	13	0	12	52	5	0	5	8	11	0
2:45 PM	4	83	8	0	6	14	15	0	7	63	8	0	8	12	5	0
3:00 PM	4	90	10	0	6	15	8	0	3	49	3	0	3	14	6	0
3:15 PM	8	78	3	0	3	9	13	0	6	68	6	0	3	9	7	0
3:30 PM	11	117	4	0	2	12	27	0	10	38	4	0	9	9	3	0
3:45 PM	7	84	6	0	5	11	22	0	21	98	19	0	8	10	6	0
4:00 PM	10	86	14	0	8	16	16	0	16	61	11	0	1	9	7	0
4:15 PM	8	90	11	0	9	24	11	0	7	53	7	0	13	12	4	0
4:30 PM	14	124	9	0	4	19	10	0	7	62	9	0	6	13	4	0
4:45 PM	11	90	9	0	9	15	18	0	8	64	10	0	5	10	9	0
5:00 PM	18	130	8	0	1	27	11	0	12	51	9	0	6	14	7	0
5:15 PM	18	109	8	0	1	17	23	0	12	49	6	0	2	16	16	0
5:30 PM	11	110	10	0	7	14	16	0	8	63	4	0	4	12	10	0
5:45 PM	8	76	10	0	2	16	4	0	8	55	5	0	4	15	4	0

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Grove St Westbound				McClellan Ave Northbound				Grove St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	2	0	0	0	0	1	0	0	3	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0
8:30 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
10:15 AM	0	4	0	0	1	0	1	0	0	1	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	1	0	2	5	0	0	0	0	0	0
10:45 AM	0	4	0	0	0	0	0	0	2	2	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	3	0	1	2	0	0	0	0	0	0
11:15 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	1	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
12:15 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:30 PM	0	2	0	0	1	1	0	0	1	3	0	0	1	0	1	0
12:45 PM	0	3	0	0	0	0	2	0	1	1	1	0	0	0	1	0
1:00 PM	0	2	0	0	0	0	0	0	0	4	1	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
1:45 PM	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	3	1	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	3	1	0	0	0	0	0	1	1	0	0	0	0	0	0
3:45 PM	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0
4:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	2	0	0	0	0	0	0	0	2	0	0	0	1	0	0
4:30 PM	1	2	0	0	2	0	0	0	0	1	0	0	0	0	1	0
4:45 PM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Grove St Westbound				McClellan Ave Northbound				Grove St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	4	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
10:45 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
11:00 AM	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2:30 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	1	5	1	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	2	0	0	0	0	1	0	0	2	0	0	1	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0
4:00 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Crossing North Leg	Grove St Crossing East Leg	McClellan Ave Crossing South Leg	Grove St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	1	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	2	0	0
9:00 AM	0	1	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	1
10:30 AM	0	0	1	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	1	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	1	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	1	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	1	0	0	1
5:30 PM	0	0	0	1
5:45 PM	0	0	0	0

Location 67.xls

Study Name **Location 67 McClellan Ave & Grove St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	McClellan Ave Southbound				Grove St Westbound				McClellan Ave Northbound				Grove St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	4	7	0	0	0	2	0	0	6	25	1	0	1	3	3	0
6:15 AM	1	11	1	0	2	0	3	0	7	34	0	0	3	7	3	0
6:30 AM	0	15	0	0	1	5	2	0	17	36	0	0	3	10	1	0
6:45 AM	1	14	0	0	2	4	3	0	8	42	1	0	0	18	5	0
7:00 AM	2	28	1	0	4	3	6	0	13	77	3	0	4	11	16	0
7:15 AM	2	42	1	0	4	8	8	0	14	87	3	0	5	18	11	0
7:30 AM	4	33	3	0	4	4	3	0	20	120	10	0	15	21	14	0
7:45 AM	3	25	1	0	9	7	6	0	16	107	9	0	12	27	15	0
8:00 AM	3	28	0	0	6	5	6	0	8	61	5	0	2	13	7	0
8:15 AM	5	33	3	0	4	4	8	0	7	72	6	0	4	16	12	0
8:30 AM	3	45	2	0	4	3	7	0	19	82	4	0	11	10	8	0
8:45 AM	2	45	3	0	4	12	15	0	33	101	15	0	20	8	15	0
9:00 AM	8	38	4	0	2	3	6	0	6	68	8	0	4	15	8	0
9:15 AM	6	30	4	0	5	7	3	0	10	49	2	0	2	9	4	0
9:30 AM	4	43	2	0	5	4	1	0	11	58	4	0	1	12	9	0
9:45 AM	6	35	2	0	3	7	5	0	9	67	3	0	2	16	6	0
10:00 AM	7	31	3	0	3	5	6	0	8	58	5	0	0	8	2	0
10:15 AM	6	47	3	0	2	2	5	0	8	49	1	0	2	5	5	0
10:30 AM	4	32	6	0	4	4	5	0	11	56	1	0	3	9	5	0
10:45 AM	6	57	6	0	0	5	3	0	13	54	4	0	0	9	3	0
11:00 AM	9	51	3	0	5	6	8	0	6	49	0	0	6	5	5	0
11:15 AM	2	44	3	0	5	3	4	0	6	43	5	0	1	8	4	0
11:30 AM	7	40	5	0	5	9	5	0	7	50	2	0	1	12	2	0
11:45 AM	7	41	6	0	6	5	4	0	7	54	3	0	1	15	8	0
12:00 PM	16	59	8	0	5	15	3	0	4	59	1	0	4	4	5	0
12:15 PM	7	54	4	0	5	12	5	0	9	44	2	0	5	14	5	0
12:30 PM	5	47	5	0	7	9	8	0	8	51	6	0	10	14	5	0
12:45 PM	11	58	4	0	7	10	6	0	5	55	5	0	3	17	13	0
1:00 PM	13	59	7	0	7	13	6	0	2	49	6	0	2	11	6	0
1:15 PM	6	45	0	0	5	8	5	0	5	52	6	0	3	8	5	0
1:30 PM	5	54	7	0	3	11	7	0	3	58	3	0	5	11	5	0
1:45 PM	8	56	8	0	4	9	7	0	5	49	1	0	4	7	10	0
2:00 PM	3	62	7	0	4	11	10	0	2	55	6	0	3	7	1	0
2:15 PM	7	75	9	0	9	8	11	0	6	48	3	0	5	9	9	0
2:30 PM	11	95	3	0	3	9	13	0	12	55	6	0	5	8	11	0
2:45 PM	4	84	8	0	6	14	15	0	8	69	9	0	8	12	5	0
3:00 PM	4	91	10	0	7	15	8	0	4	49	3	0	3	14	6	0
3:15 PM	8	80	3	0	3	9	14	0	6	70	6	0	4	9	7	0
3:30 PM	11	121	5	0	2	12	27	0	11	39	4	0	9	9	3	0
3:45 PM	7	87	6	0	6	11	23	0	22	99	19	0	9	10	6	0
4:00 PM	10	90	14	0	9	17	16	0	16	62	11	0	1	9	7	0
4:15 PM	9	92	11	0	9	24	12	0	7	55	7	0	13	13	4	0
4:30 PM	15	126	9	0	6	19	10	0	7	66	9	0	6	13	5	0
4:45 PM	11	93	9	0	9	15	18	0	8	72	10	0	5	10	10	0
5:00 PM	18	130	8	0	1	27	11	0	12	54	9	0	6	14	7	0
5:15 PM	18	110	8	0	1	17	23	0	12	50	6	0	2	16	16	0
5:30 PM	11	110	10	0	7	14	16	0	9	64	4	0	4	12	10	0
5:45 PM	8	77	10	0	2	16	4	0	8	58	5	0	4	15	4	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Washington St Westbound				7th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	3	0	0	1	12	2	0	1	9	1	0	1	9	4	0
6:15 AM	5	2	0	0	2	9	3	0	4	13	2	0	0	9	9	0
6:30 AM	7	7	0	0	4	9	0	0	3	45	5	0	1	21	16	0
6:45 AM	8	5	1	0	3	19	4	0	2	52	8	0	3	27	19	0
7:00 AM	10	8	3	0	4	30	1	0	2	46	31	0	4	23	10	0
7:15 AM	6	28	3	0	1	28	3	0	1	48	40	0	13	42	10	0
7:30 AM	14	34	2	0	6	40	4	0	6	60	6	0	8	61	12	0
7:45 AM	13	22	4	0	5	44	3	0	9	98	22	0	8	81	15	0
8:00 AM	10	6	2	0	7	57	3	0	5	44	11	0	3	53	16	0
8:15 AM	11	6	1	0	4	33	4	0	0	30	14	0	10	36	14	0
8:30 AM	10	20	3	0	5	57	2	0	4	57	11	0	8	51	10	0
8:45 AM	13	19	2	0	5	68	3	0	5	92	8	0	11	70	17	0
9:00 AM	12	10	3	0	6	73	5	0	5	24	10	0	2	66	7	0
9:15 AM	11	9	4	0	4	61	3	0	3	27	9	0	8	65	9	0
9:30 AM	18	9	0	0	7	70	2	0	3	47	11	0	14	56	8	0
9:45 AM	18	18	5	0	5	60	0	0	2	50	16	0	10	71	13	0
10:00 AM	7	21	2	0	3	62	2	0	4	35	9	0	3	63	6	0
10:15 AM	8	11	3	0	2	65	5	0	8	21	5	0	9	76	8	0
10:30 AM	10	16	1	0	5	74	2	0	4	28	8	0	6	84	11	0
10:45 AM	10	16	6	0	6	75	5	0	3	30	6	0	9	85	11	0
11:00 AM	14	25	9	0	4	91	6	0	6	24	12	0	8	65	9	0
11:15 AM	13	15	6	0	5	81	3	0	3	15	9	0	12	78	7	0
11:30 AM	15	20	2	0	1	79	5	0	3	32	6	0	14	77	8	0
11:45 AM	16	25	7	0	7	93	3	0	10	34	12	0	11	98	13	0
12:00 PM	19	19	7	0	7	93	4	0	4	30	19	0	23	88	17	0
12:15 PM	15	14	9	0	5	98	2	0	5	18	17	0	14	92	8	0
12:30 PM	18	22	6	0	6	79	3	0	8	27	10	0	12	100	11	0
12:45 PM	14	30	7	0	7	81	2	0	9	35	11	0	14	107	11	0
1:00 PM	12	24	7	0	11	87	3	0	11	17	9	0	14	90	10	0
1:15 PM	18	18	6	0	4	79	6	0	3	31	8	0	8	84	6	0
1:30 PM	9	19	6	0	7	89	4	0	6	35	9	0	8	77	12	0
1:45 PM	13	22	6	0	2	81	1	0	3	32	4	0	11	71	14	0
2:00 PM	11	28	5	0	4	95	6	0	7	13	9	0	11	63	14	0
2:15 PM	12	19	1	0	3	93	4	0	7	18	3	0	12	81	9	0
2:30 PM	19	38	9	0	7	83	6	0	6	44	14	0	25	80	13	0
2:45 PM	14	37	5	0	7	65	5	0	9	40	24	0	12	78	14	0
3:00 PM	18	53	10	0	4	82	3	0	10	24	14	0	21	90	9	0
3:15 PM	21	32	6	0	7	73	6	0	7	21	8	0	8	87	12	0
3:30 PM	26	51	9	0	6	73	5	0	8	27	12	0	15	74	19	0
3:45 PM	34	44	12	0	2	87	13	0	6	23	9	0	17	90	17	0
4:00 PM	25	51	8	0	7	100	8	0	5	21	12	0	21	96	12	0
4:15 PM	15	39	5	0	7	84	8	0	7	22	8	0	10	81	13	0
4:30 PM	22	48	8	0	5	113	6	0	5	10	9	0	17	89	19	0
4:45 PM	21	38	10	0	8	91	6	0	5	22	14	0	21	97	17	0
5:00 PM	24	53	6	0	7	100	2	0	6	26	9	0	23	79	21	0
5:15 PM	23	29	9	0	3	78	5	0	9	27	9	0	17	98	17	0
5:30 PM	18	21	5	0	4	66	2	0	3	26	7	0	19	79	17	0
5:45 PM	17	30	3	0	5	64	7	0	4	23	11	0	15	72	9	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Washington St Westbound				7th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0
6:30 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:45 AM	0	0	0	0	0	2	0	0	1	2	0	0	0	1	1	0
7:00 AM	0	3	1	0	0	3	0	0	0	2	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	3	1	0	0	2	0	0	1	1	0	0
7:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0
7:45 AM	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0
8:00 AM	0	1	0	0	0	2	0	0	0	1	1	0	0	2	0	0
8:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0
8:30 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0
9:00 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	2	0	0
9:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0
9:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	2	0	0
9:45 AM	0	1	0	0	0	1	0	0	1	1	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	2	0	0	1	0	0	0	1	1	1	0
10:15 AM	0	2	0	0	0	1	0	0	0	1	1	0	1	4	0	0
10:30 AM	1	0	0	0	0	5	0	0	1	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	2	0	0	0	1	0	0	0	3	1	0
11:00 AM	0	0	0	0	1	0	0	0	0	1	1	0	1	0	1	0
11:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	2	2	0	0
11:30 AM	0	0	0	0	0	3	0	0	1	0	1	0	1	1	0	0
11:45 AM	0	1	0	0	0	2	0	0	1	1	0	0	0	1	1	0
12:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	0
12:15 PM	1	1	0	0	0	0	0	0	1	1	0	0	1	2	0	0
12:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	1	1	0	0
12:45 PM	0	1	0	0	0	2	1	0	0	0	0	0	0	2	0	0
1:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	3	0	0
1:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	2	0	0
1:45 PM	0	0	0	0	1	2	0	0	0	0	1	0	0	2	1	0
2:00 PM	1	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
2:15 PM	1	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0
2:30 PM	1	0	0	0	0	2	0	0	0	2	0	0	0	1	2	0
2:45 PM	0	0	0	0	0	1	0	0	0	1	1	0	1	3	0	0
3:00 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	1	0	0	0	0	0	0	0	1	1	0	1	1	0	0
3:30 PM	0	1	0	0	0	2	0	0	0	3	0	0	2	1	0	0
3:45 PM	0	1	0	0	0	1	0	0	0	2	0	0	1	1	0	0
4:00 PM	0	2	0	0	0	1	0	0	0	2	0	0	0	1	0	0
4:15 PM	1	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	2	1	0
4:45 PM	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	2	0	0
5:15 PM	2	0	0	0	0	2	1	0	1	0	0	0	0	1	0	0
5:30 PM	0	0	1	0	0	3	0	0	0	0	0	0	0	1	0	0
5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	1	0	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Washington St Westbound				7th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
6:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	3	0	0	0	1	1	0	1	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0
9:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	1	0	1	0	0	0	0	0	0	3	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0
2:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	2	0	0	1	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Crossing North Leg	Washington St Crossing East Leg	7th St Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	1	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	2	0
7:15 AM	0	0	0	0
7:30 AM	1	0	0	0
7:45 AM	0	0	2	0
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	1	1	0	0
8:45 AM	3	0	0	0
9:00 AM	0	0	0	1
9:15 AM	1	0	1	0
9:30 AM	0	0	1	0
9:45 AM	0	0	0	0
10:00 AM	0	1	0	0
10:15 AM	1	0	0	0
10:30 AM	1	2	0	2
10:45 AM	0	0	0	0
11:00 AM	0	0	0	2
11:15 AM	0	0	0	0
11:30 AM	0	0	1	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	1	0	1	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	1	0
1:15 PM	0	1	1	0
1:30 PM	0	1	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	1	0	0
3:00 PM	0	1	0	0
3:15 PM	0	1	0	0
3:30 PM	0	2	0	0
3:45 PM	0	2	2	0
4:00 PM	0	0	1	0
4:15 PM	0	1	0	0
4:30 PM	0	2	0	0
4:45 PM	0	0	0	0
5:00 PM	1	2	0	0
5:15 PM	1	1	0	0
5:30 PM	0	0	1	0
5:45 PM	0	2	0	0

Study Name **Location 75 7th St & Washington St**
Date **12/4/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	7th St Southbound				Washington St Westbound				7th St Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	3	5	0	0	1	13	2	0	1	9	1	0	1	9	4	0
6:15 AM	5	2	1	0	2	10	3	0	4	13	2	0	0	12	10	0
6:30 AM	8	8	1	0	4	10	0	0	3	45	5	0	1	22	16	0
6:45 AM	8	5	1	0	3	21	4	0	3	54	8	0	3	28	20	0
7:00 AM	10	11	4	0	4	36	1	0	2	49	32	0	5	23	10	0
7:15 AM	6	30	3	0	2	31	4	0	1	50	40	0	16	43	10	0
7:30 AM	14	36	2	0	6	41	4	0	6	60	6	0	11	62	12	0
7:45 AM	14	23	4	0	5	44	3	0	9	100	23	0	10	81	15	0
8:00 AM	10	7	2	0	7	59	3	0	5	45	12	0	3	55	16	0
8:15 AM	11	6	1	0	4	33	4	0	1	31	14	0	11	37	14	0
8:30 AM	10	22	3	0	5	59	2	0	4	57	11	0	8	52	10	0
8:45 AM	13	22	2	0	5	68	3	0	5	92	8	0	11	72	19	0
9:00 AM	12	13	3	0	6	73	6	0	5	25	10	0	2	68	7	0
9:15 AM	11	10	4	0	4	62	3	0	3	28	9	0	9	65	9	0
9:30 AM	18	9	0	0	7	72	2	0	3	47	11	0	15	58	8	0
9:45 AM	18	19	5	0	5	61	0	0	3	52	16	0	10	72	13	0
10:00 AM	7	21	2	0	3	64	2	0	5	35	9	0	4	64	7	0
10:15 AM	8	13	3	0	2	67	5	0	8	22	6	0	10	80	8	0
10:30 AM	11	16	1	0	5	79	2	0	5	28	8	0	6	85	11	0
10:45 AM	10	16	6	0	6	77	5	0	3	31	6	0	9	88	12	0
11:00 AM	15	25	10	0	5	91	6	0	6	28	13	0	9	66	10	0
11:15 AM	14	15	6	0	6	81	3	0	3	15	9	0	14	80	7	0
11:30 AM	15	20	2	0	1	82	5	0	4	33	7	0	15	78	8	0
11:45 AM	16	26	7	0	7	95	3	0	11	35	12	0	11	99	14	0
12:00 PM	19	19	7	0	7	95	4	0	4	30	19	0	24	90	17	0
12:15 PM	16	16	9	0	5	99	2	0	6	19	17	0	15	94	8	0
12:30 PM	18	22	6	0	6	82	3	0	8	28	10	0	13	101	11	0
12:45 PM	14	31	7	0	7	83	3	0	9	36	12	0	14	109	11	0
1:00 PM	12	24	7	0	11	88	3	0	11	18	9	0	14	94	10	0
1:15 PM	18	18	6	0	4	82	6	0	3	31	8	0	8	84	6	0
1:30 PM	9	19	6	0	7	91	4	0	6	36	9	0	9	80	12	0
1:45 PM	13	22	6	0	3	83	1	0	3	32	5	0	11	73	15	0
2:00 PM	12	28	5	0	4	97	6	0	7	14	9	0	11	64	14	0
2:15 PM	13	23	1	0	3	94	5	0	7	18	3	0	14	82	9	0
2:30 PM	20	39	9	0	7	85	6	0	6	46	14	0	25	81	15	0
2:45 PM	14	38	5	0	7	66	5	0	9	41	25	0	13	81	14	0
3:00 PM	18	53	11	0	4	86	3	0	11	25	14	0	21	91	9	0
3:15 PM	21	33	6	0	7	73	6	0	7	22	9	0	9	88	12	0
3:30 PM	26	52	9	0	6	77	5	0	9	30	12	0	17	75	20	0
3:45 PM	34	45	12	0	2	90	13	0	6	26	9	0	18	91	17	0
4:00 PM	25	53	8	0	7	101	8	0	5	23	12	0	21	98	12	0
4:15 PM	16	40	5	0	7	85	8	0	7	24	8	0	10	82	13	0
4:30 PM	22	48	8	0	5	114	6	0	5	10	9	0	18	92	20	0
4:45 PM	22	39	10	0	8	92	6	0	5	23	14	0	21	97	17	0
5:00 PM	24	53	6	0	7	102	3	0	6	28	9	0	24	81	21	0
5:15 PM	25	29	9	0	3	80	6	0	10	27	9	0	17	99	17	0
5:30 PM	18	21	6	0	4	69	2	0	3	26	7	0	19	80	17	0
5:45 PM	17	32	3	0	5	64	7	0	4	23	11	0	17	73	9	0

Study Name **US-41 & Front St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound			Front St Northbound			US 41 Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	12	10	0	24	53	1	8	3	0
6:15 AM	6	10	1	38	50	0	22	4	1
6:30 AM	12	13	2	64	66	4	18	6	0
6:45 AM	23	24	0	75	117	1	51	16	2
7:00 AM	14	22	0	70	161	3	46	5	0
7:15 AM	12	33	0	67	124	0	51	26	1
7:30 AM	17	41	1	118	142	3	59	35	0
7:45 AM	25	31	1	170	171	3	79	54	0
8:00 AM	28	33	1	86	128	0	63	34	9
8:15 AM	26	40	0	70	134	2	56	39	1
8:30 AM	22	25	1	79	122	3	39	26	0
8:45 AM	32	45	0	90	101	0	74	43	2
9:00 AM	17	28	0	76	120	0	57	29	2
9:15 AM	22	26	1	58	100	0	68	19	3
9:30 AM	21	43	1	82	123	3	65	24	0
9:45 AM	24	50	0	78	116	0	79	31	2
10:00 AM	8	42	1	54	94	0	68	23	2
10:15 AM	23	44	2	76	86	4	68	25	0
10:30 AM	26	32	0	56	90	0	79	11	1
10:45 AM	25	50	0	60	106	2	86	20	1
11:00 AM	26	49	0	61	94	0	87	21	1
11:15 AM	24	52	0	75	92	1	100	25	0
11:30 AM	29	44	3	69	108	4	112	35	0
11:45 AM	30	54	0	79	120	1	100	39	3
12:00 PM	44	73	0	77	111	0	101	33	3
12:15 PM	49	46	0	57	94	0	93	37	1
12:30 PM	24	58	0	68	101	1	112	39	1
12:45 PM	40	50	3	78	104	0	109	40	2
1:00 PM	42	59	0	78	116	4	93	26	0
1:15 PM	44	54	0	71	92	0	103	35	1
1:30 PM	40	65	2	61	105	0	116	33	0
1:45 PM	39	48	1	77	115	0	106	27	3
2:00 PM	29	64	0	84	120	1	119	33	0
2:15 PM	29	68	0	65	92	1	119	35	2
2:30 PM	38	88	2	60	96	1	139	34	0
2:45 PM	32	78	0	70	110	1	134	34	0
3:00 PM	28	78	1	61	109	4	125	36	0
3:15 PM	32	81	0	78	84	0	142	41	1
3:30 PM	33	102	2	73	107	5	142	40	0
3:45 PM	32	85	3	65	111	0	153	49	5
4:00 PM	53	95	0	72	103	5	171	44	2
4:15 PM	37	86	1	75	92	0	142	32	3
4:30 PM	57	99	3	84	117	3	178	34	0
4:45 PM	44	90	1	90	91	0	197	46	4
5:00 PM	73	142	0	61	76	0	203	55	1
5:15 PM	41	130	0	91	109	1	177	54	0
5:30 PM	33	85	0	63	112	2	144	29	1
5:45 PM	27	74	5	89	109	0	138	30	5

Study Name **US-41 & Front St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound			Front St Northbound			US 41 Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	1	0	1	3	0	0
6:15 AM	1	1	0	0	1	0	3	0	1
6:30 AM	0	0	0	0	1	0	0	1	0
6:45 AM	0	1	0	2	2	1	1	1	0
7:00 AM	1	1	0	2	1	0	2	0	0
7:15 AM	0	1	0	0	0	0	2	0	0
7:30 AM	0	0	0	1	2	0	2	0	1
7:45 AM	1	0	0	2	1	0	4	0	0
8:00 AM	0	1	0	2	1	0	5	0	0
8:15 AM	0	1	0	1	3	0	4	2	0
8:30 AM	0	1	0	2	0	3	6	0	0
8:45 AM	0	0	0	4	4	0	5	2	0
9:00 AM	0	1	0	4	5	0	4	1	0
9:15 AM	0	4	0	2	2	0	6	1	0
9:30 AM	1	0	1	3	2	3	3	0	0
9:45 AM	0	1	0	4	7	0	2	1	0
10:00 AM	0	1	0	1	2	0	3	1	0
10:15 AM	1	0	0	0	2	1	3	0	0
10:30 AM	0	0	1	1	2	1	2	0	0
10:45 AM	0	1	0	1	4	0	3	0	0
11:00 AM	0	1	0	1	5	0	3	1	0
11:15 AM	0	0	0	2	4	0	2	0	0
11:30 AM	0	0	0	1	7	0	4	0	0
11:45 AM	0	1	0	3	3	0	2	0	1
12:00 PM	1	1	0	2	5	0	7	1	0
12:15 PM	0	2	0	2	3	0	2	0	0
12:30 PM	0	1	0	0	2	0	2	0	0
12:45 PM	1	3	0	1	3	0	1	1	0
1:00 PM	1	1	0	1	5	0	5	0	0
1:15 PM	0	2	0	2	5	0	4	1	0
1:30 PM	2	1	0	4	4	0	5	0	0
1:45 PM	1	2	0	4	6	1	3	2	0
2:00 PM	0	0	0	0	6	0	5	0	1
2:15 PM	1	2	0	2	5	0	6	1	0
2:30 PM	0	3	0	0	3	2	5	1	0
2:45 PM	0	1	0	4	3	0	7	0	1
3:00 PM	0	0	1	2	4	1	3	1	0
3:15 PM	2	1	0	0	4	0	6	2	0
3:30 PM	0	0	0	1	6	0	2	0	0
3:45 PM	2	0	0	0	4	0	3	2	0
4:00 PM	2	3	1	1	2	0	2	0	0
4:15 PM	1	0	0	0	3	0	3	0	1
4:30 PM	1	1	0	1	1	0	3	1	0
4:45 PM	0	1	0	2	8	0	3	1	0
5:00 PM	3	0	0	0	2	0	0	0	0
5:15 PM	0	0	1	2	2	1	0	0	0
5:30 PM	0	0	0	0	1	0	1	2	0
5:45 PM	0	0	0	0	1	0	4	0	0

Study Name **US-41 & Front St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound			Front St Northbound			US 41 Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	0	0	0	0	6	0	0	1	0
6:15 AM	1	0	0	0	5	0	2	0	0
6:30 AM	0	0	0	1	6	0	1	0	0
6:45 AM	0	1	0	1	8	0	2	0	0
7:00 AM	0	0	0	0	4	0	1	0	0
7:15 AM	1	1	0	0	6	0	6	1	0
7:30 AM	0	1	0	1	5	0	6	0	0
7:45 AM	0	1	0	0	5	0	6	0	0
8:00 AM	0	0	0	1	5	0	4	0	0
8:15 AM	0	0	0	1	7	0	5	0	0
8:30 AM	0	0	0	0	3	0	2	0	0
8:45 AM	1	0	0	1	4	0	9	0	0
9:00 AM	0	1	0	0	5	0	7	0	0
9:15 AM	0	0	0	1	7	0	4	0	0
9:30 AM	0	0	0	0	1	0	5	0	0
9:45 AM	0	1	0	1	4	0	3	0	0
10:00 AM	0	0	0	0	6	2	8	0	0
10:15 AM	0	1	0	1	5	0	5	0	0
10:30 AM	1	2	0	1	5	0	5	0	0
10:45 AM	0	0	0	0	4	0	2	0	0
11:00 AM	0	1	0	1	4	0	5	0	0
11:15 AM	1	0	0	0	6	0	4	0	0
11:30 AM	1	1	0	1	8	0	8	0	0
11:45 AM	1	1	0	2	3	1	2	0	0
12:00 PM	0	1	0	0	4	0	5	0	1
12:15 PM	1	1	0	1	5	0	2	0	0
12:30 PM	0	3	0	0	3	0	4	0	0
12:45 PM	0	1	0	0	4	0	5	0	1
1:00 PM	0	1	0	0	2	0	3	0	0
1:15 PM	0	0	0	1	3	0	1	0	0
1:30 PM	0	0	0	1	5	0	5	0	0
1:45 PM	1	0	0	0	5	0	4	0	0
2:00 PM	0	0	0	1	6	0	7	0	0
2:15 PM	0	2	0	1	8	0	1	0	0
2:30 PM	0	0	0	0	2	0	1	0	1
2:45 PM	0	1	0	1	7	0	5	0	0
3:00 PM	0	0	0	0	7	0	8	0	0
3:15 PM	0	0	0	3	6	0	3	0	0
3:30 PM	0	1	0	0	8	0	3	0	0
3:45 PM	0	0	0	1	3	0	3	0	0
4:00 PM	1	1	0	0	1	0	3	1	0
4:15 PM	1	0	0	0	9	0	5	0	0
4:30 PM	0	1	0	0	6	0	3	0	0
4:45 PM	0	0	0	0	2	0	0	1	0
5:00 PM	0	2	0	0	1	0	4	0	0
5:15 PM	0	1	0	0	3	0	0	0	0
5:30 PM	0	1	0	0	2	0	2	0	0
5:45 PM	0	1	0	0	3	0	1	0	0

Study Name **US-41 & Front St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound	Front St Northbound	US 41 Eastbound
Start Time	Peds	Peds	Peds
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0

Study Name **US-41 & Front St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound	Front St Northbound	US 41 Eastbound
Start Time	Bikes	Bikes	Bikes
6:00 AM	0	0	0
6:15 AM	0	0	0
6:30 AM	0	0	0
6:45 AM	0	0	0
7:00 AM	0	0	0
7:15 AM	0	0	0
7:30 AM	0	0	0
7:45 AM	0	0	0
8:00 AM	0	0	0
8:15 AM	0	0	0
8:30 AM	0	0	0
8:45 AM	0	0	0
9:00 AM	0	0	0
9:15 AM	0	0	0
9:30 AM	0	0	0
9:45 AM	0	0	0
10:00 AM	0	0	0
10:15 AM	0	0	0
10:30 AM	0	0	0
10:45 AM	0	0	0
11:00 AM	0	0	0
11:15 AM	0	0	0
11:30 AM	0	0	0
11:45 AM	0	0	0
12:00 PM	0	0	0
12:15 PM	0	0	0
12:30 PM	0	0	0
12:45 PM	0	0	0
1:00 PM	0	0	0
1:15 PM	0	0	0
1:30 PM	0	0	0
1:45 PM	0	0	0
2:00 PM	0	0	0
2:15 PM	0	0	0
2:30 PM	0	0	0
2:45 PM	0	0	0
3:00 PM	0	0	0
3:15 PM	0	0	0
3:30 PM	0	0	0
3:45 PM	0	0	0
4:00 PM	0	0	0
4:15 PM	0	0	0
4:30 PM	0	0	0
4:45 PM	0	0	0
5:00 PM	0	0	0
5:15 PM	0	0	0
5:30 PM	0	0	0
5:45 PM	0	0	0

Study Name **US-41 & Front St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Front St Southbound			Front St Northbound			US 41 Eastbound		
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn
6:00 AM	12	10	0	25	59	2	11	4	0
6:15 AM	8	11	1	38	56	0	27	4	2
6:30 AM	12	13	2	65	73	4	19	7	0
6:45 AM	23	26	0	78	127	2	54	17	2
7:00 AM	15	23	0	72	166	3	49	5	0
7:15 AM	13	35	0	67	130	0	59	27	1
7:30 AM	17	42	1	120	149	3	67	35	1
7:45 AM	26	32	1	172	177	3	89	54	0
8:00 AM	28	34	1	89	134	0	72	34	9
8:15 AM	26	41	0	72	144	2	65	41	1
8:30 AM	22	26	1	81	125	6	47	26	0
8:45 AM	33	45	0	95	109	0	88	45	2
9:00 AM	17	30	0	80	130	0	68	30	2
9:15 AM	22	30	1	61	109	0	78	20	3
9:30 AM	22	43	2	85	126	6	73	24	0
9:45 AM	24	52	0	83	127	0	84	32	2
10:00 AM	8	43	1	55	102	2	79	24	2
10:15 AM	24	45	2	77	93	5	76	25	0
10:30 AM	27	34	1	58	97	1	86	11	1
10:45 AM	25	51	0	61	114	2	91	20	1
11:00 AM	26	51	0	63	103	0	95	22	1
11:15 AM	25	52	0	77	102	1	106	25	0
11:30 AM	30	45	3	71	123	4	124	35	0
11:45 AM	31	56	0	84	126	2	104	39	4
12:00 PM	45	75	0	79	120	0	113	34	4
12:15 PM	50	49	0	60	102	0	97	37	1
12:30 PM	24	62	0	68	106	1	118	39	1
12:45 PM	41	54	3	79	111	0	115	41	3
1:00 PM	43	61	0	79	123	4	101	26	0
1:15 PM	44	56	0	74	100	0	108	36	1
1:30 PM	42	66	2	66	114	0	126	33	0
1:45 PM	41	50	1	81	126	1	113	29	3
2:00 PM	29	64	0	85	132	1	131	33	1
2:15 PM	30	72	0	68	105	1	126	36	2
2:30 PM	38	91	2	60	101	3	145	35	1
2:45 PM	32	80	0	75	120	1	146	34	1
3:00 PM	28	78	2	63	120	5	136	37	0
3:15 PM	34	82	0	81	94	0	151	43	1
3:30 PM	33	103	2	74	121	5	147	40	0
3:45 PM	34	85	3	66	118	0	159	51	5
4:00 PM	56	99	1	73	106	5	176	45	2
4:15 PM	39	86	1	75	104	0	150	32	4
4:30 PM	58	101	3	85	124	3	184	35	0
4:45 PM	44	91	1	92	101	0	200	48	4
5:00 PM	76	144	0	61	79	0	207	55	1
5:15 PM	41	131	1	93	114	2	177	54	0
5:30 PM	33	86	0	63	115	2	147	31	1
5:45 PM	27	75	5	89	113	0	143	30	5

Study Name Grove St & Homestead St./Anderson St
Date 09/30/2014
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Homestead St Southbound				Grove St Southwestbound				Anderson St Northwestbound				Grove St Northeastbound			
Start Time	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Thru	Left	U-Turn	Right	Bear Right	Left	U-Turn	Right	Thru	Bear Left	U-Turn
6:00 AM	2	0	3	0	1	3	0	0	0	0	0	0	1	10	1	0
6:15 AM	0	1	4	0	1	3	1	0	1	1	0	0	0	13	0	0
6:30 AM	0	1	5	0	2	6	0	0	1	2	0	0	2	13	1	0
6:45 AM	0	1	5	0	3	12	3	0	2	2	3	0	1	30	2	0
7:00 AM	0	0	0	0	4	10	5	0	1	1	2	0	2	20	0	0
7:15 AM	0	1	2	0	2	11	9	0	2	0	1	0	2	31	0	0
7:30 AM	0	3	7	0	3	17	15	0	5	3	1	0	2	39	0	0
7:45 AM	0	2	4	0	9	12	21	0	3	2	3	0	6	63	3	0
8:00 AM	0	3	6	0	6	19	9	0	1	1	1	0	3	30	0	0
8:15 AM	0	0	5	0	3	9	8	0	2	1	1	0	2	25	0	0
8:30 AM	0	1	4	0	5	12	12	0	3	2	0	0	2	29	1	0
8:45 AM	0	1	5	0	0	15	17	0	4	1	2	0	1	35	1	0
9:00 AM	0	0	4	0	2	13	9	0	3	1	3	0	1	20	0	0
9:15 AM	0	3	3	0	2	13	9	0	4	1	2	0	1	21	1	0
9:30 AM	0	2	4	0	1	18	9	0	5	0	3	0	5	20	0	0
9:45 AM	0	1	13	0	5	13	12	0	10	0	1	0	8	26	2	0
10:00 AM	0	0	3	0	3	14	11	0	3	1	1	0	3	15	1	0
10:15 AM	0	0	3	0	5	8	8	0	9	2	0	0	1	14	0	0
10:30 AM	1	1	8	0	3	11	2	0	4	2	2	0	1	19	0	0
10:45 AM	1	1	7	0	7	14	14	0	13	1	2	0	2	25	0	0
11:00 AM	0	3	2	0	9	10	12	0	5	1	0	0	1	18	0	0
11:15 AM	0	2	5	0	5	19	7	0	7	3	1	0	2	20	0	0
11:30 AM	0	4	12	0	7	11	14	0	11	1	2	0	6	20	0	0
11:45 AM	0	1	6	0	6	29	10	0	19	2	3	0	7	21	0	0
12:00 PM	1	4	9	0	8	24	12	0	10	0	0	0	3	21	0	0
12:15 PM	0	1	4	0	5	22	10	0	7	0	2	0	5	24	2	0
12:30 PM	2	1	9	0	9	14	12	0	8	2	1	0	2	20	0	0
12:45 PM	0	4	10	0	11	28	15	0	6	1	0	0	2	28	0	0
1:00 PM	0	2	10	0	6	28	16	0	6	2	2	0	6	25	2	0
1:15 PM	1	4	5	0	12	30	13	0	7	4	5	0	2	21	0	0
1:30 PM	0	2	8	0	11	18	12	0	6	2	1	0	4	25	1	0
1:45 PM	1	1	7	0	6	22	22	0	6	2	1	0	2	25	3	0
2:00 PM	6	4	13	0	10	24	9	0	11	1	2	0	3	32	2	0
2:15 PM	2	0	15	0	5	18	13	0	14	1	7	0	3	20	1	0
2:30 PM	0	0	9	0	4	21	15	0	10	0	2	0	7	29	1	0
2:45 PM	0	5	11	0	5	27	17	0	12	0	2	0	4	37	2	0
3:00 PM	1	5	5	0	5	34	17	0	8	1	5	0	1	26	1	0
3:15 PM	1	3	10	0	4	30	11	0	5	4	2	0	4	22	2	0
3:30 PM	2	2	10	0	6	25	12	0	9	2	2	0	5	23	0	0
3:45 PM	0	4	6	0	6	35	10	0	17	2	11	0	7	31	0	0
4:00 PM	0	2	12	0	3	33	17	0	10	0	4	0	7	29	1	0
4:15 PM	0	1	8	0	3	16	10	0	1	2	0	0	6	20	2	0
4:30 PM	1	3	4	0	9	47	17	0	9	0	3	0	4	26	1	0
4:45 PM	0	1	8	0	5	36	10	0	17	1	8	0	3	26	0	0
5:00 PM	1	3	7	0	8	62	9	0	20	3	0	0	8	27	0	0
5:15 PM	1	1	5	0	10	31	19	0	6	2	6	0	5	25	0	0
5:30 PM	0	0	1	0	5	28	10	0	4	0	2	0	3	27	0	0
5:45 PM	0	4	10	0	8	32	14	0	11	0	1	0	3	16	1	0

Study Name **Grove St & Homestead St./Anderson St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Homestead St Southbound				Grove St Southwestbound				Anderson St Northwestbound				Grove St Northeastbound			
Start Time	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Thru	Left	U-Turn	Right	Bear Right	Left	U-Turn	Right	Thru	Bear Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
10:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0
10:30 AM	0	0	1	0	0	2	0	0	1	0	0	0	0	1	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	2	1	0	0	0	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0
1:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0
2:00 PM	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	0
2:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	2	0	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
3:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0
4:00 PM	0	0	1	0	0	1	0	0	0	0	1	0	0	2	0	0
4:15 PM	0	0	1	0	1	1	1	0	1	1	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0

Study Name Grove St & Homestead St./Anderson St
Date 09/30/2014
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Homestead St Southbound				Grove St Southwestbound				Anderson St Northwestbound				Grove St Northeastbound			
Start Time	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Thru	Left	U-Turn	Right	Bear Right	Left	U-Turn	Right	Thru	Bear Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name **Grove St & Homestead St./Anderson St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Homestead St Crossing North Leg	Grove St Crossing Northeast Leg	Anderson St Crossing Southeast Leg	Grove St Crossing Southwest Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	2	2
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	1
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	1	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	1	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	1	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	1	1	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	1	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	1	0	1
5:45 PM	0	0	0	0

Study Name **Grove St & Homestead St./Anderson St**
Date **09/30/2014**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

	Homestead St Crossing North Leg	Grove St Crossing Northeast Leg	Anderson St Crossing Southeast Leg	Grove St Crossing Southwest Leg
Start Time	Bikes	Bikes	Bikes	Bikes
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
10:00 AM	0	0	0	0
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	0	0	0	0
11:00 AM	0	0	0	0
11:15 AM	0	0	0	0
11:30 AM	0	0	0	0
11:45 AM	0	0	0	0
12:00 PM	0	0	0	0
12:15 PM	0	0	0	0
12:30 PM	0	0	0	0
12:45 PM	0	0	0	0
1:00 PM	0	0	0	0
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	0	0	0	0
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name Grove St & Homestead St./Anderson St
Date 09/30/2014
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	Homestead St Southbound				Grove St Southwestbound				Anderson St Northwestbound				Grove St Northeastbound			
Start Time	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Thru	Left	U-Turn	Right	Bear Right	Left	U-Turn	Right	Thru	Bear Left	U-Turn
6:00 AM	2	0	3	0	1	3	0	0	0	0	0	0	1	10	1	0
6:15 AM	0	1	4	0	1	3	1	0	1	1	0	0	0	13	0	0
6:30 AM	0	1	5	0	2	6	0	0	1	2	0	0	2	13	1	0
6:45 AM	0	1	5	0	3	12	3	0	2	2	3	0	1	30	2	0
7:00 AM	0	0	0	0	4	10	5	0	2	1	2	0	2	20	0	0
7:15 AM	0	2	2	0	3	11	9	0	2	1	1	0	2	31	0	0
7:30 AM	0	3	7	0	3	17	16	0	5	3	1	0	2	39	0	0
7:45 AM	0	2	4	0	10	12	21	0	3	3	3	0	6	63	3	0
8:00 AM	0	3	6	0	6	19	9	0	1	1	1	0	3	30	0	0
8:15 AM	0	0	6	0	4	9	8	0	2	2	1	0	2	25	0	0
8:30 AM	0	1	4	0	5	13	12	0	3	2	0	0	3	31	1	0
8:45 AM	0	1	6	0	0	15	17	0	4	1	2	0	1	35	1	0
9:00 AM	0	0	4	0	2	15	9	0	3	1	3	0	1	22	0	0
9:15 AM	0	3	3	0	2	13	9	0	4	2	2	0	1	21	1	0
9:30 AM	0	2	4	0	2	19	9	0	5	0	3	0	5	20	0	0
9:45 AM	0	1	14	0	5	13	12	0	10	0	1	0	8	26	2	0
10:00 AM	0	0	3	0	3	14	12	0	4	1	1	0	3	15	1	0
10:15 AM	0	1	3	0	6	8	8	0	9	3	0	0	1	14	1	0
10:30 AM	1	1	10	0	3	13	2	0	5	2	2	0	1	20	0	0
10:45 AM	1	1	7	0	7	14	14	0	13	1	2	0	2	26	0	0
11:00 AM	0	3	2	0	9	10	12	0	5	1	0	0	1	18	0	0
11:15 AM	0	2	5	0	5	20	7	0	7	4	1	0	2	20	0	0
11:30 AM	0	4	12	0	7	11	14	0	11	1	2	0	6	20	0	0
11:45 AM	0	1	6	0	6	29	10	0	20	2	3	0	7	21	0	0
12:00 PM	1	4	9	0	10	25	12	0	10	0	0	0	3	22	0	0
12:15 PM	0	1	4	0	5	23	10	0	7	1	2	0	5	24	2	0
12:30 PM	2	1	9	0	9	15	12	0	8	2	1	0	2	20	0	0
12:45 PM	0	4	10	0	13	28	15	0	6	1	0	0	2	29	0	0
1:00 PM	1	2	10	0	6	29	16	0	6	2	2	0	6	26	2	0
1:15 PM	1	4	5	0	12	30	13	0	7	5	5	0	2	21	0	0
1:30 PM	0	3	8	0	12	18	12	0	6	2	1	0	4	25	1	0
1:45 PM	1	1	7	0	6	22	22	0	6	2	2	0	2	27	3	0
2:00 PM	6	4	13	0	10	25	10	0	12	1	2	0	3	33	2	0
2:15 PM	2	0	15	0	5	19	13	0	14	2	9	0	3	22	1	0
2:30 PM	0	0	9	0	4	22	15	0	10	0	2	0	8	30	1	0
2:45 PM	0	5	11	0	5	27	17	0	12	0	2	0	4	37	2	0
3:00 PM	1	5	5	0	5	34	17	0	8	1	5	0	1	27	1	0
3:15 PM	1	3	11	0	4	31	11	0	5	5	2	0	4	22	2	0
3:30 PM	2	2	10	0	6	26	12	0	9	2	2	0	5	25	0	0
3:45 PM	0	4	6	0	6	35	11	0	17	2	11	0	7	33	0	0
4:00 PM	0	2	13	0	3	34	17	0	10	0	5	0	7	31	1	0
4:15 PM	0	1	9	0	4	18	11	0	2	3	0	0	6	20	2	0
4:30 PM	1	3	5	0	9	47	17	0	9	0	3	0	4	26	1	0
4:45 PM	0	1	9	0	6	37	11	0	17	1	8	0	3	26	0	0
5:00 PM	1	3	7	0	8	62	9	0	20	3	0	0	8	27	0	0
5:15 PM	1	1	6	0	10	31	19	0	6	3	6	0	5	26	0	0
5:30 PM	0	0	1	0	5	28	10	0	4	0	2	0	3	27	0	0
5:45 PM	0	4	10	0	8	33	14	0	11	0	1	0	3	17	1	0

Study Name Location 63 McClellan Ave & Washington St
Date 12/3/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	McClellan Ave Southbound				Washington St Westbound				McClellan Ave Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	5	5	2	0	3	15	3	0	8	11	2	0	5	26	2	0
6:15 AM	4	11	2	0	2	25	3	0	14	18	1	0	5	45	4	0
6:30 AM	10	15	4	0	2	12	2	0	13	29	4	0	1	59	16	0
6:45 AM	8	12	5	0	5	28	6	0	15	46	3	0	1	54	15	0
7:00 AM	9	20	6	0	7	35	12	0	21	99	4	0	2	45	25	0
7:15 AM	11	33	9	0	7	46	16	0	33	102	4	0	0	55	21	0
7:30 AM	11	40	18	0	11	59	11	0	31	106	12	0	7	75	19	0
7:45 AM	18	45	15	0	11	51	11	0	24	106	15	0	6	109	30	0
8:00 AM	15	26	13	0	6	65	17	0	21	58	11	0	11	67	17	0
8:15 AM	9	22	8	0	13	49	14	0	23	62	12	0	8	69	21	0
8:30 AM	17	38	11	0	14	55	11	0	36	68	22	0	8	88	20	0
8:45 AM	9	44	28	0	14	67	26	0	28	110	18	0	9	75	27	0
9:00 AM	19	31	15	0	21	70	24	0	30	67	19	0	11	46	15	0
9:15 AM	20	47	11	0	9	81	14	0	24	61	20	0	11	62	16	0
9:30 AM	23	48	26	0	16	76	8	0	21	58	18	0	15	79	22	0
9:45 AM	28	43	24	0	14	84	18	0	28	83	16	0	11	79	22	0
10:00 AM	20	43	15	0	12	92	20	0	23	47	21	0	15	77	18	0
10:15 AM	24	56	14	0	12	77	20	0	26	57	26	0	11	93	23	0
10:30 AM	34	51	16	0	22	88	18	0	35	42	18	0	10	86	25	0
10:45 AM	27	57	13	0	16	102	10	0	29	54	19	0	12	61	17	0
11:00 AM	20	56	12	0	21	116	21	0	21	61	27	0	18	81	20	0
11:15 AM	44	37	22	0	15	86	19	0	31	54	12	0	14	89	25	0
11:30 AM	35	55	25	0	24	95	32	0	25	56	21	0	12	98	21	0
11:45 AM	39	48	25	0	24	142	22	0	37	59	24	0	16	116	20	0
12:00 PM	40	62	26	0	16	127	33	0	32	82	24	0	12	124	33	0
12:15 PM	28	57	22	0	22	108	21	0	30	58	21	0	21	119	35	0
12:30 PM	42	47	29	0	20	114	30	0	35	58	23	0	18	118	34	0
12:45 PM	35	55	27	0	20	116	25	0	25	63	19	0	17	119	33	0
1:00 PM	31	49	15	0	25	136	32	0	26	66	15	0	17	95	31	0
1:15 PM	26	47	30	0	24	112	32	0	29	58	15	0	18	117	31	0
1:30 PM	31	56	18	0	21	131	27	0	27	65	18	0	9	106	38	0
1:45 PM	36	63	24	0	26	127	30	0	27	72	16	0	12	100	29	0
2:00 PM	41	53	20	0	18	109	25	0	29	52	21	0	7	107	32	0
2:15 PM	38	60	14	0	18	133	41	0	29	61	25	0	12	104	31	0
2:30 PM	50	95	30	0	23	142	31	0	32	56	25	0	12	105	34	0
2:45 PM	38	68	19	0	18	110	27	0	29	71	21	0	15	94	29	0
3:00 PM	33	72	18	0	16	127	45	0	32	70	25	0	9	110	20	0
3:15 PM	38	72	30	0	29	113	30	0	28	49	18	2	13	91	19	0
3:30 PM	39	84	16	0	25	132	31	0	24	66	19	0	13	96	27	0
3:45 PM	39	69	24	0	25	141	42	0	36	85	24	0	11	109	26	0
4:00 PM	47	105	31	0	20	141	34	0	31	87	30	0	16	101	30	0
4:15 PM	49	60	31	0	30	135	24	0	27	79	22	0	16	87	27	0
4:30 PM	42	92	25	0	22	143	37	0	17	74	23	0	14	105	25	0
4:45 PM	45	87	22	0	30	145	26	0	36	70	22	0	19	102	27	0
5:00 PM	33	109	27	0	24	154	45	0	23	75	15	0	11	98	23	0
5:15 PM	33	99	31	0	22	133	32	0	22	60	18	0	11	92	30	0
5:30 PM	37	77	20	0	16	90	26	0	23	58	12	0	10	114	26	0
5:45 PM	33	61	24	0	15	98	32	0	25	57	11	0	7	86	18	0

Study Name Location 63 McClellan Ave & Washington St
Date 12/3/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	McClellan Ave Southbound				Washington St Westbound				McClellan Ave Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 AM	0	0	1	0	0	1	1	0	1	0	1	0	0	2	0	0
6:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0
6:45 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0
7:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0
7:15 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	4	0	0
7:30 AM	0	1	0	0	3	1	0	0	0	2	0	0	0	2	0	0
7:45 AM	1	1	1	0	0	1	0	0	0	0	1	0	2	1	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0
8:15 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	2	0	0
8:30 AM	0	1	0	0	1	1	0	0	2	1	0	0	1	0	1	0
8:45 AM	0	1	0	0	0	0	0	0	1	3	0	0	0	2	0	0
9:00 AM	1	1	0	0	0	1	0	0	0	1	0	0	0	3	0	0
9:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0
9:30 AM	1	0	0	0	2	1	1	0	1	4	0	0	0	2	0	0
9:45 AM	0	3	0	0	1	1	0	0	0	1	0	0	1	1	1	0
10:00 AM	0	2	0	0	0	5	1	0	0	1	0	0	0	0	0	0
10:15 AM	1	3	0	0	0	0	0	0	0	3	0	0	0	3	0	0
10:30 AM	0	2	0	0	1	2	0	0	0	3	0	0	2	2	0	0
10:45 AM	0	2	2	0	0	0	1	0	1	2	2	0	0	4	0	0
11:00 AM	0	0	0	0	0	1	1	0	1	1	1	0	0	0	2	0
11:15 AM	0	3	1	0	0	1	0	0	0	2	0	0	1	1	0	0
11:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	1	3	0	0
11:45 AM	0	1	0	0	3	2	0	0	0	3	1	0	0	1	1	0
12:00 PM	1	1	1	0	0	1	0	0	0	2	0	0	0	2	1	0
12:15 PM	0	1	0	0	0	0	1	0	1	2	0	0	1	3	0	0
12:30 PM	1	1	0	0	1	2	1	0	0	4	0	0	0	0	1	0
12:45 PM	1	3	0	0	0	1	0	0	0	4	0	0	0	0	0	0
1:00 PM	1	2	0	0	0	3	0	0	0	3	1	0	0	2	0	0
1:15 PM	0	2	0	0	0	0	0	0	0	3	1	0	0	1	0	0
1:30 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	0
2:00 PM	0	0	0	0	0	3	0	0	1	1	1	0	0	0	0	0
2:15 PM	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0
2:30 PM	2	0	0	0	1	1	0	0	0	1	0	0	1	2	1	0
2:45 PM	0	1	0	0	1	1	0	0	0	2	0	0	0	2	0	0
3:00 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	1	0	0
3:15 PM	0	1	1	0	0	1	1	0	1	1	0	0	0	3	0	0
3:30 PM	0	1	0	0	1	0	0	0	1	0	0	0	0	3	1	0
3:45 PM	1	1	1	0	0	1	0	0	1	1	0	0	1	1	1	0
4:00 PM	0	3	0	0	1	1	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
4:30 PM	1	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0
5:00 PM	1	0	0	0	0	2	1	0	0	1	1	0	1	0	1	0
5:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	3	1	0	0	1	0	0	0	1	0	0
5:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0

Study Name Location 63 McClellan Ave & Washington St
Date 12/3/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

	McClellan Ave Southbound				Washington St Westbound				McClellan Ave Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
6:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:00 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0
7:15 AM	0	1	0	0	0	0	0	0	1	1	1	0	0	1	0	0
7:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	1	0	0	0	3	0	0	0	1	0	0
8:45 AM	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0
10:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
1:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
1:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0
2:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0

Study Name **Location 63 McClellan Ave & Washington St**
Date **12/3/2013**
Time **6:00 AM - 6:00 PM**
Location **Marquette, MI**

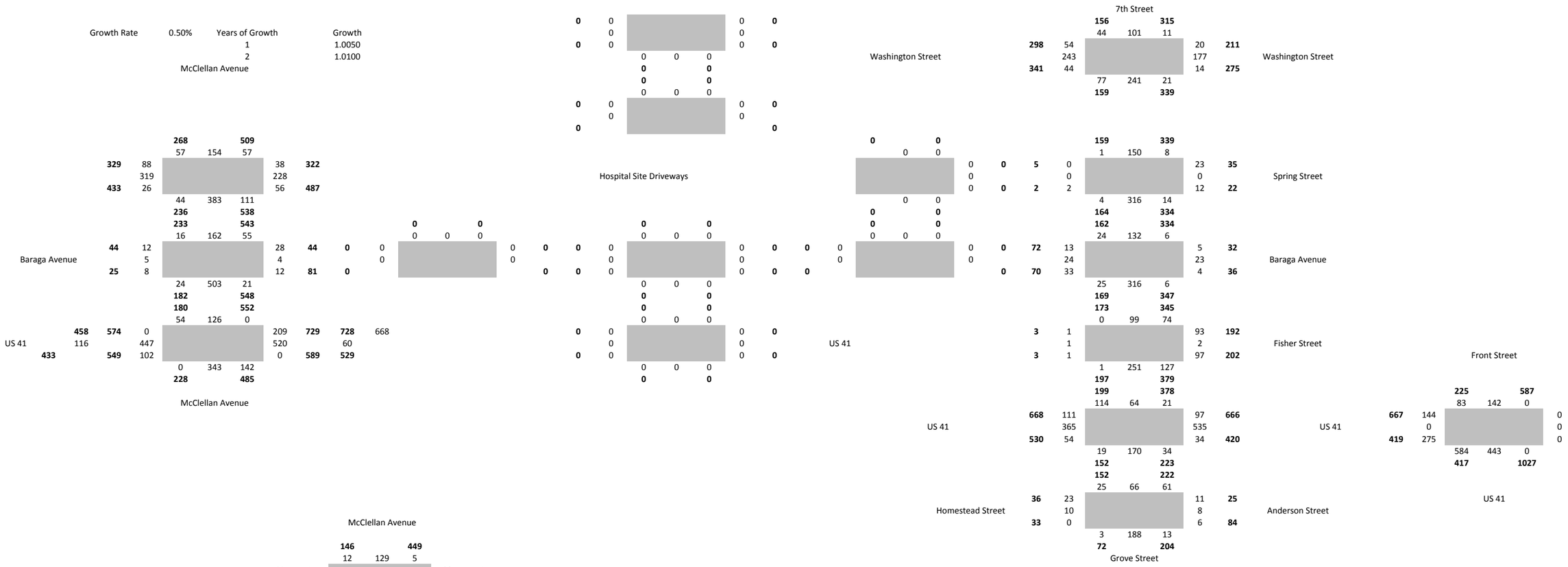
	McClellan Ave Crossing North Leg	Washington St Crossing East Leg	McClellan Ave Crossing South Leg	Washington St Crossing West Leg
Start Time	Peds	Peds	Peds	Peds
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	0	0	0	0
7:00 AM	0	0	0	0
7:15 AM	0	1	0	0
7:30 AM	0	2	1	1
7:45 AM	0	1	0	1
8:00 AM	0	1	0	0
8:15 AM	1	0	0	1
8:30 AM	1	1	0	0
8:45 AM	0	1	0	0
9:00 AM	0	0	0	0
9:15 AM	1	2	1	0
9:30 AM	0	2	0	1
9:45 AM	1	0	0	0
10:00 AM	0	1	1	0
10:15 AM	2	1	1	1
10:30 AM	0	0	2	0
10:45 AM	1	4	1	0
11:00 AM	1	0	0	0
11:15 AM	0	0	1	0
11:30 AM	0	0	1	0
11:45 AM	2	3	3	1
12:00 PM	0	1	0	0
12:15 PM	0	1	0	0
12:30 PM	0	0	0	0
12:45 PM	1	0	1	1
1:00 PM	1	2	1	0
1:15 PM	0	0	1	0
1:30 PM	1	1	1	1
1:45 PM	1	1	1	0
2:00 PM	0	1	4	0
2:15 PM	0	0	2	0
2:30 PM	1	4	4	0
2:45 PM	3	1	2	1
3:00 PM	0	0	1	0
3:15 PM	2	1	1	0
3:30 PM	1	2	2	1
3:45 PM	3	2	1	4
4:00 PM	0	3	2	0
4:15 PM	1	2	2	0
4:30 PM	0	1	1	0
4:45 PM	0	0	1	0
5:00 PM	1	0	0	0
5:15 PM	1	0	1	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0

Study Name Location 63 McClellan Ave & Washington St
Date 12/3/2013
Time 6:00 AM - 6:00 PM
Location Marquette, MI

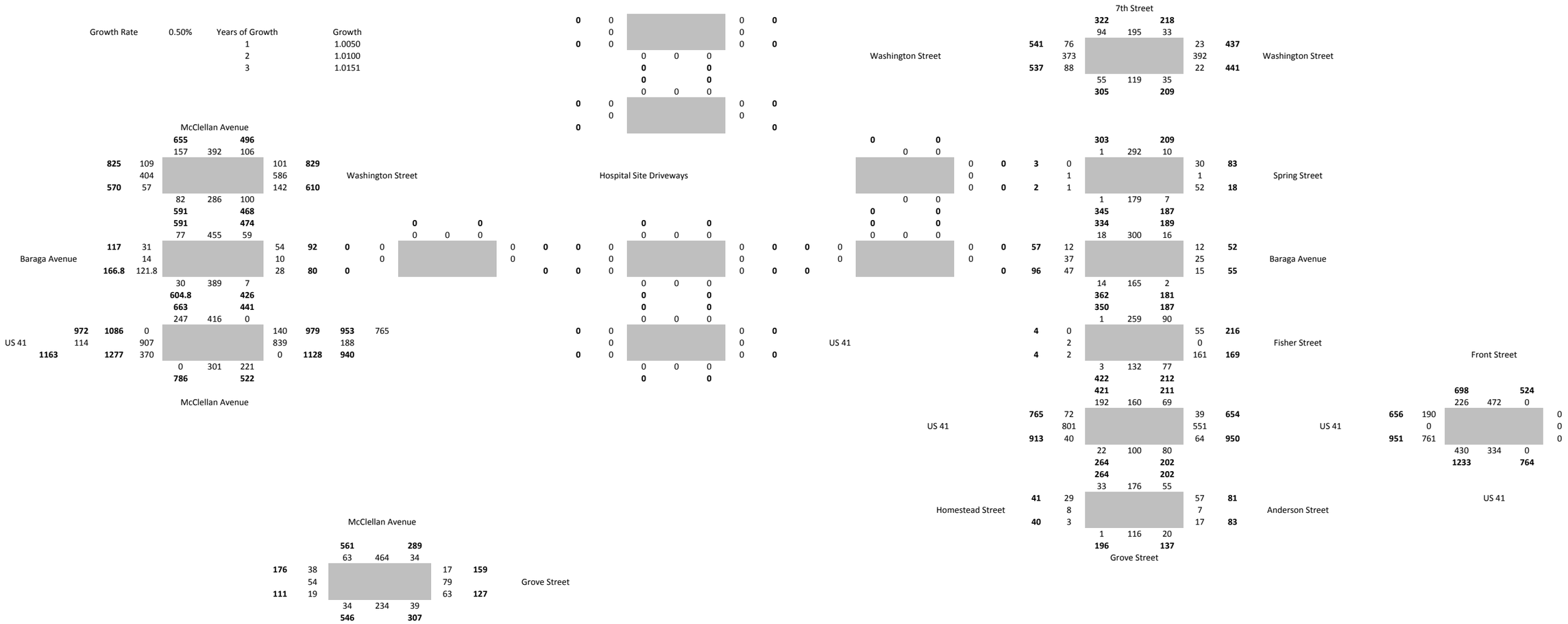
	McClellan Ave Southbound				Washington St Westbound				McClellan Ave Northbound				Washington St Eastbound			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
6:00 AM	6	5	2	0	3	15	6	0	8	11	2	0	5	27	2	0
6:15 AM	4	11	3	0	2	27	4	0	15	18	2	0	5	49	4	0
6:30 AM	10	15	4	0	2	15	2	0	13	29	4	0	1	62	16	0
6:45 AM	8	13	5	0	5	29	7	0	15	46	3	0	2	54	16	0
7:00 AM	9	20	6	0	9	36	12	0	21	102	4	0	2	46	26	0
7:15 AM	11	36	9	0	7	47	16	0	34	103	5	0	0	60	21	0
7:30 AM	11	43	18	0	14	60	11	0	31	109	12	0	7	77	19	0
7:45 AM	19	46	16	0	11	53	11	0	24	107	16	0	8	110	30	0
8:00 AM	15	27	13	0	6	66	17	0	21	60	11	0	11	69	17	0
8:15 AM	9	23	8	0	13	50	14	0	24	62	12	0	8	71	21	0
8:30 AM	17	40	11	0	15	57	11	0	38	72	22	0	9	89	21	0
8:45 AM	9	45	29	0	15	67	26	0	29	114	18	0	9	77	27	0
9:00 AM	20	32	15	0	21	72	24	0	30	71	19	0	11	49	15	0
9:15 AM	20	47	11	0	9	83	14	0	24	61	20	0	11	65	16	0
9:30 AM	24	50	26	0	18	78	9	0	22	62	18	0	15	82	22	0
9:45 AM	28	46	24	0	15	85	18	0	28	85	16	0	12	80	23	0
10:00 AM	20	46	15	0	12	98	21	0	23	48	21	0	15	77	19	0
10:15 AM	25	61	14	0	12	77	20	0	26	60	26	0	11	97	23	0
10:30 AM	34	53	16	0	23	90	18	0	35	45	18	0	12	88	25	0
10:45 AM	27	59	15	0	16	102	11	0	30	57	21	0	12	65	17	0
11:00 AM	20	57	12	0	21	118	22	0	23	62	28	0	18	81	22	0
11:15 AM	44	40	23	0	15	87	19	0	31	56	12	0	15	90	26	0
11:30 AM	35	55	25	0	25	97	32	0	25	56	21	0	13	101	21	0
11:45 AM	39	49	25	0	27	144	22	0	37	62	25	0	16	117	21	0
12:00 PM	41	63	27	0	16	128	33	0	32	86	24	0	12	126	34	0
12:15 PM	28	60	22	0	22	108	22	0	31	61	21	0	22	122	35	0
12:30 PM	43	50	29	0	21	117	31	0	35	63	23	0	18	118	35	0
12:45 PM	36	58	27	0	20	117	25	0	25	68	19	0	17	119	33	0
1:00 PM	32	52	15	0	25	139	32	0	28	69	16	0	17	97	31	0
1:15 PM	26	50	30	0	25	112	32	0	29	61	16	0	18	119	31	0
1:30 PM	31	56	18	0	22	131	28	0	27	67	18	0	9	107	38	0
1:45 PM	37	63	24	0	26	129	30	0	27	74	16	0	12	102	29	0
2:00 PM	41	53	20	0	18	112	25	0	30	53	22	0	7	107	32	0
2:15 PM	39	61	15	0	18	134	41	0	29	61	25	0	12	106	31	0
2:30 PM	52	97	30	0	24	143	31	0	32	57	25	0	13	108	36	0
2:45 PM	38	69	19	0	19	111	27	0	29	74	21	0	15	96	29	0
3:00 PM	34	73	18	0	17	128	45	0	32	73	26	0	9	111	20	0
3:15 PM	38	73	31	0	29	114	31	0	29	50	18	2	13	95	19	0
3:30 PM	39	86	16	0	26	132	31	0	25	66	19	0	13	99	28	0
3:45 PM	40	70	25	0	26	143	42	0	37	87	25	0	12	110	27	0
4:00 PM	47	109	31	0	21	142	34	0	31	87	30	0	16	101	31	0
4:15 PM	49	60	31	0	30	135	24	0	27	79	22	0	17	89	27	0
4:30 PM	43	92	25	0	23	144	37	0	17	74	25	0	14	106	25	0
4:45 PM	45	88	22	0	31	145	26	0	36	70	22	0	19	102	29	0
5:00 PM	34	109	27	0	24	156	46	0	24	78	16	0	12	98	24	0
5:15 PM	33	99	31	0	22	135	32	0	22	61	18	0	11	94	30	0
5:30 PM	37	77	20	0	16	93	27	0	23	59	12	0	10	115	26	0
5:45 PM	33	61	24	0	16	99	32	0	25	58	11	0	8	86	18	0

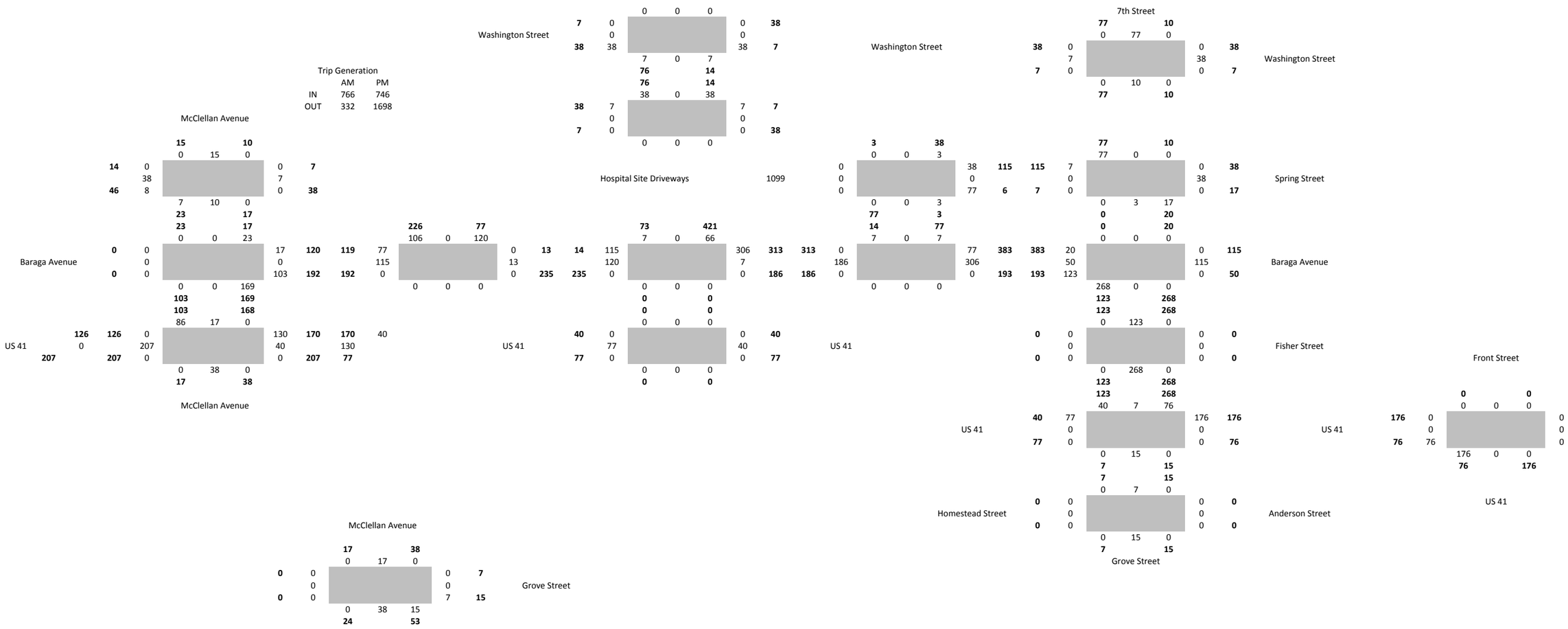
APPENDIX B
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

Growth Rate	0.50%	Years of Growth	Growth
		1	1.0050
		2	1.0100



Growth Rate	0.50%	Years of Growth	Growth
		1	1.0050
		2	1.0100
		3	1.0151

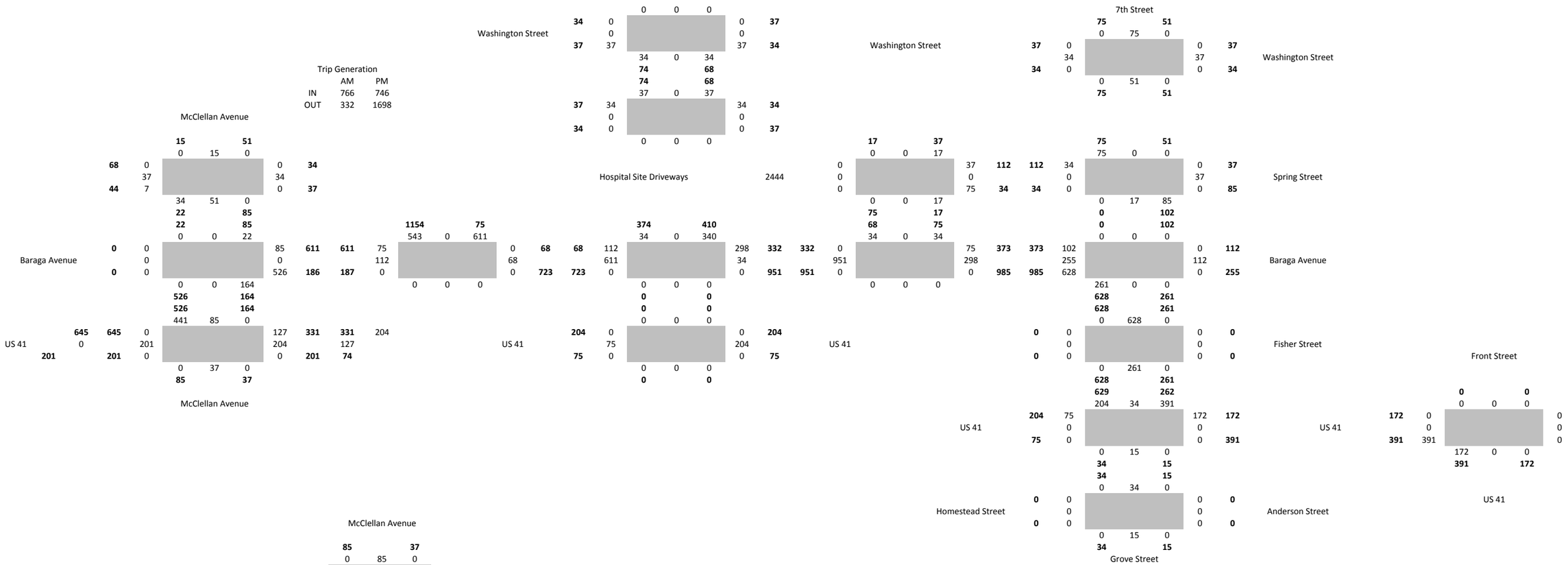




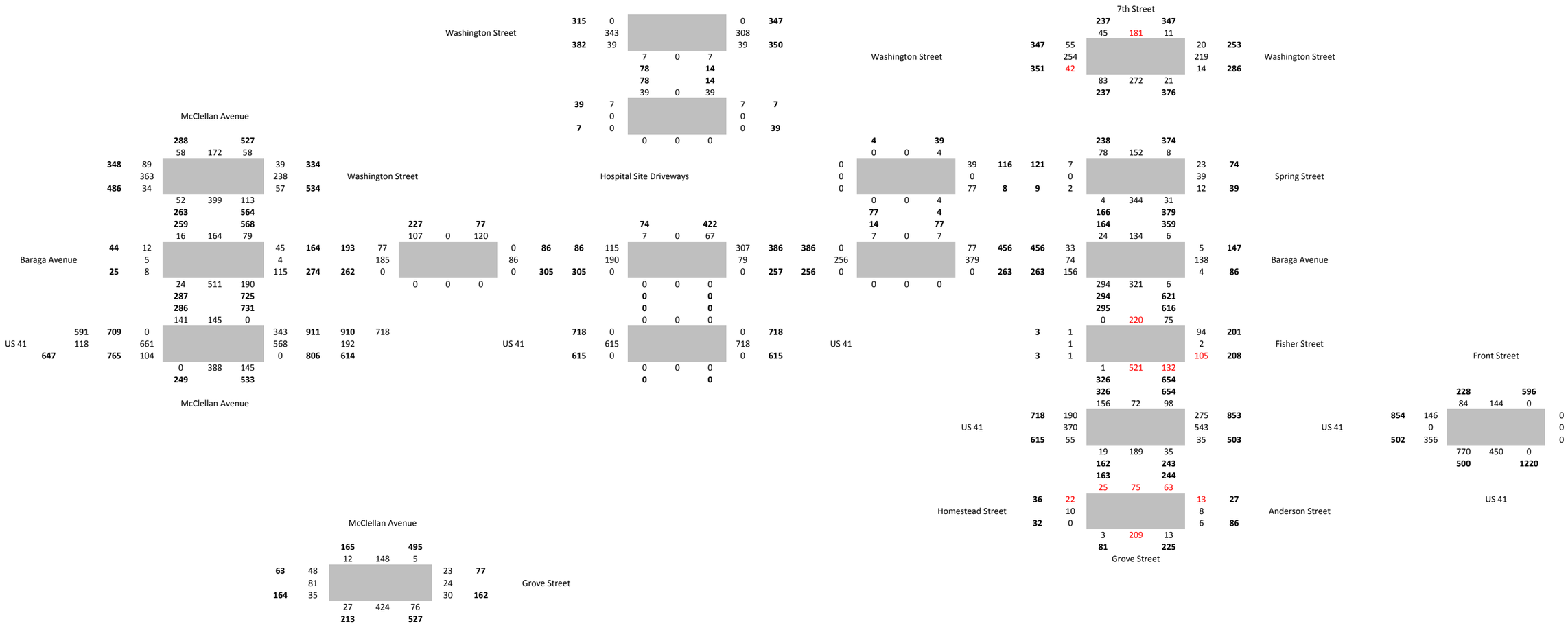
No Build Site AM Total

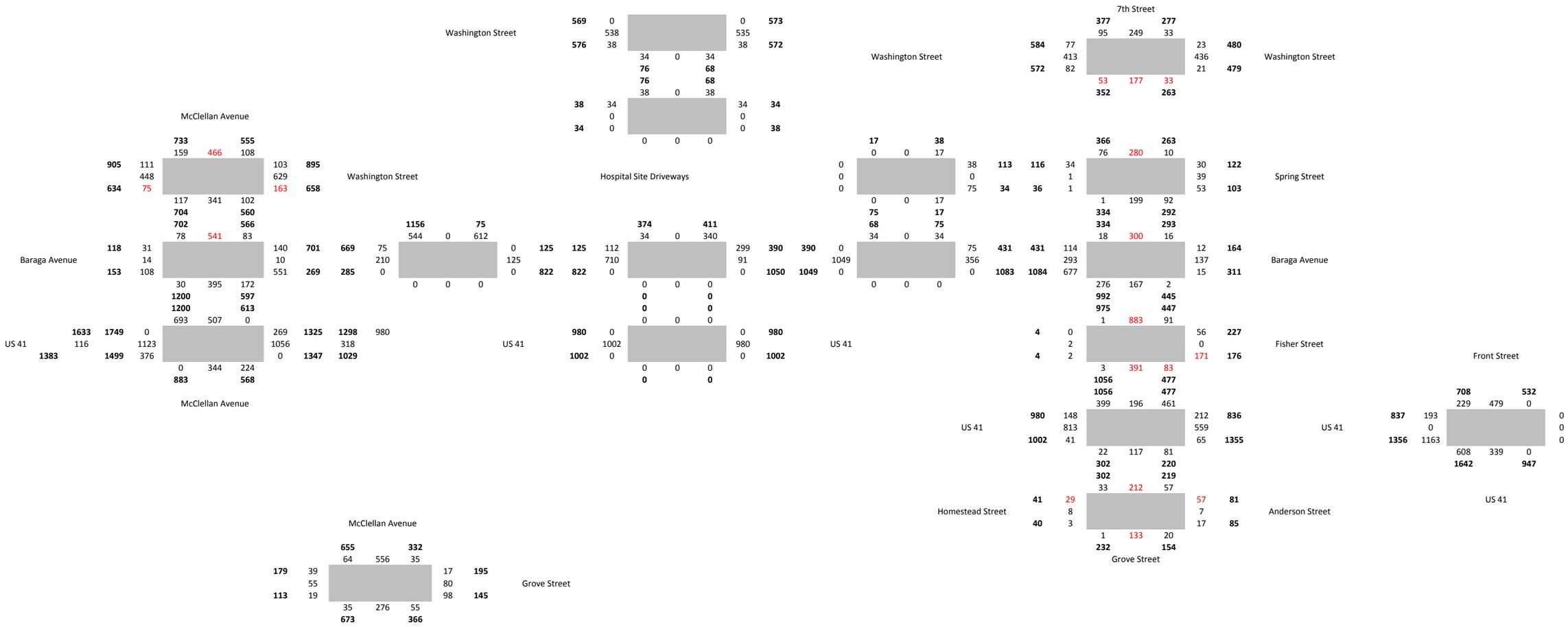
Trip Generation

	AM	PM
IN	766	746
OUT	332	1698



No Build Site PM Total

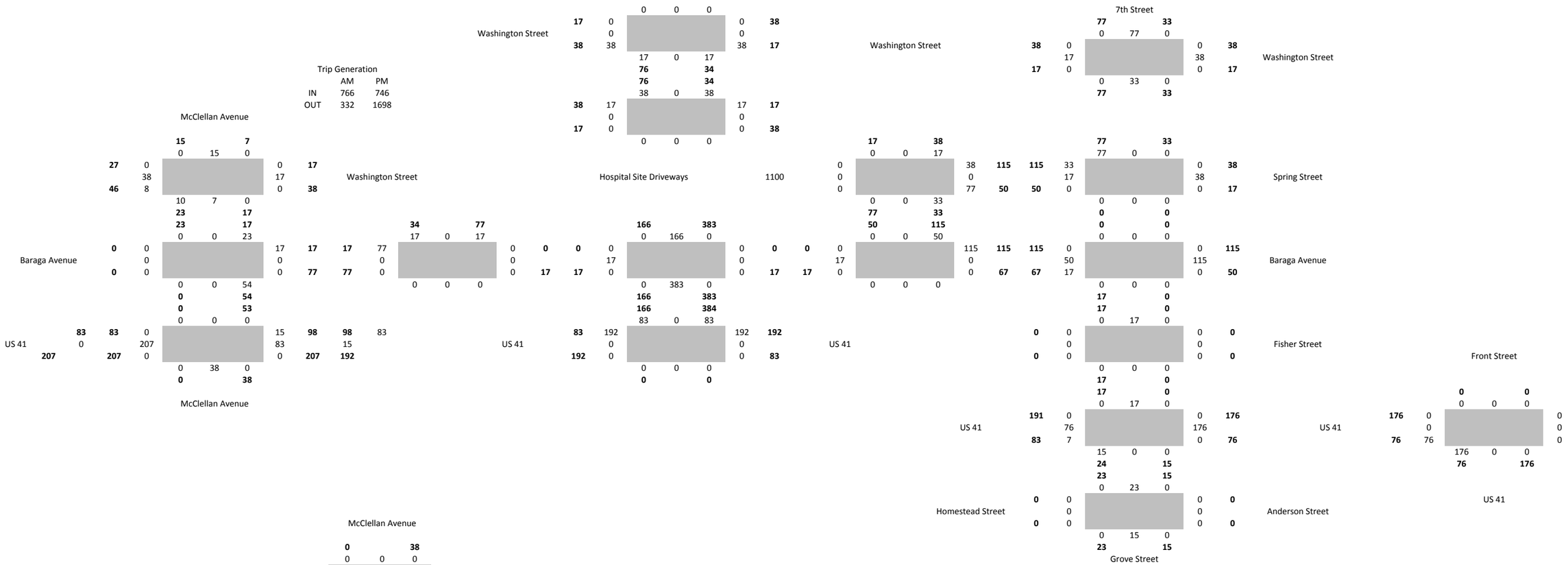

7th Street
Washington Street
Washington Street
Washington Street
Washington Street
Hospital Site Driveways
Spring Street
McClellan Avenue
Baraga Avenue
Baraga Avenue
US 41
US 41
US 41
Fisher Street
Front Street
McClellan Avenue
US 41
US 41
Homestead Street
Anderson Street
McClellan Avenue
Grove Street
Grove Street



2018 No Build PM TF Bal

Trip Generation

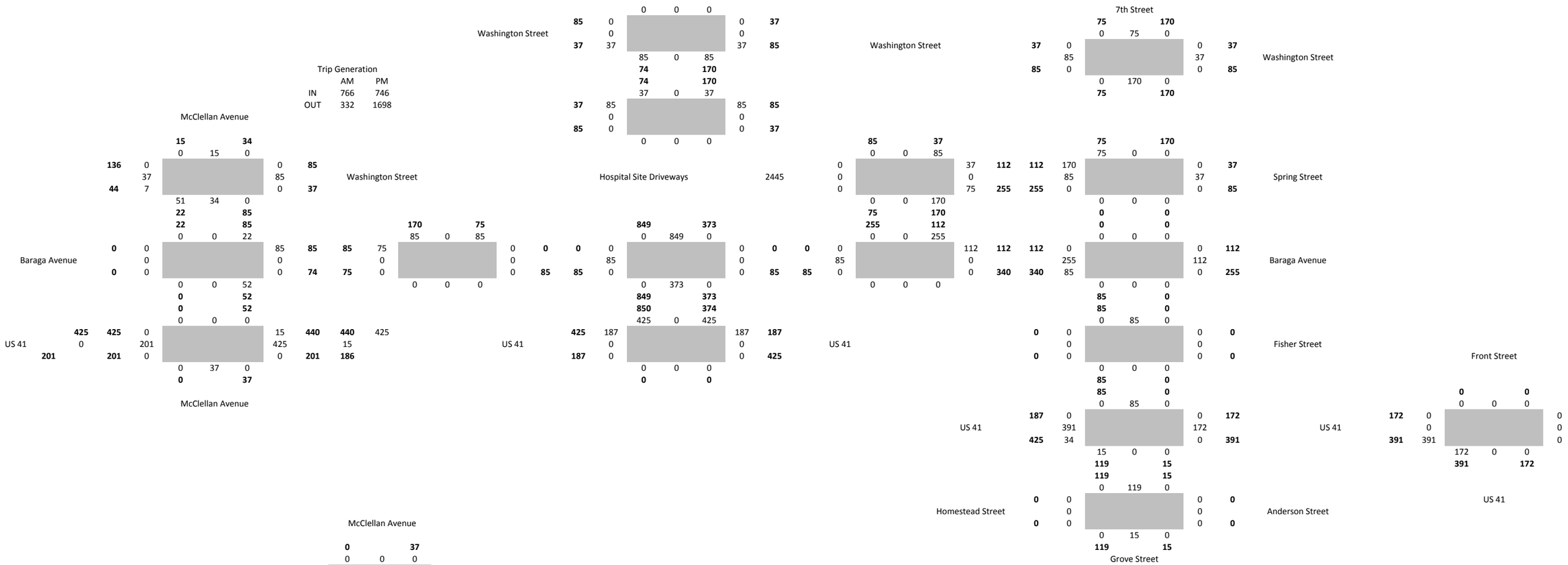
	AM	PM
IN	766	746
OUT	332	1698



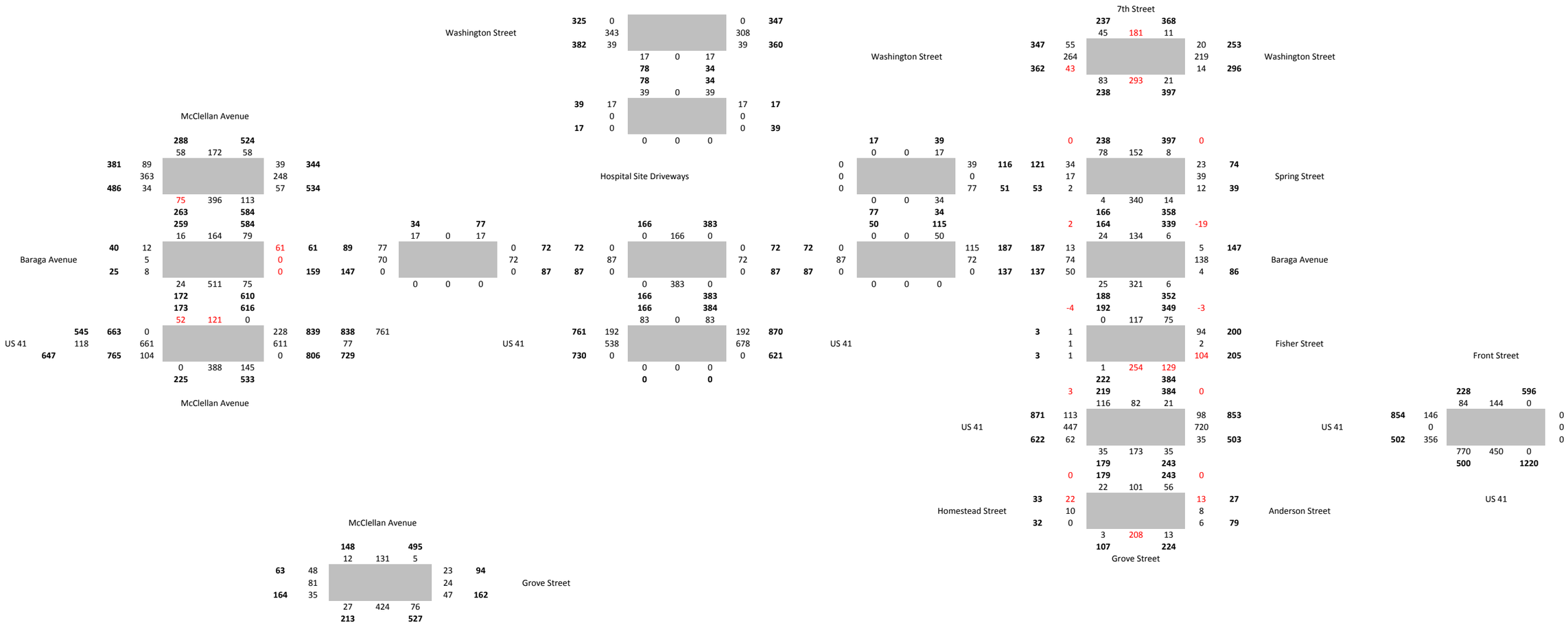
Build Site AM Total

Trip Generation

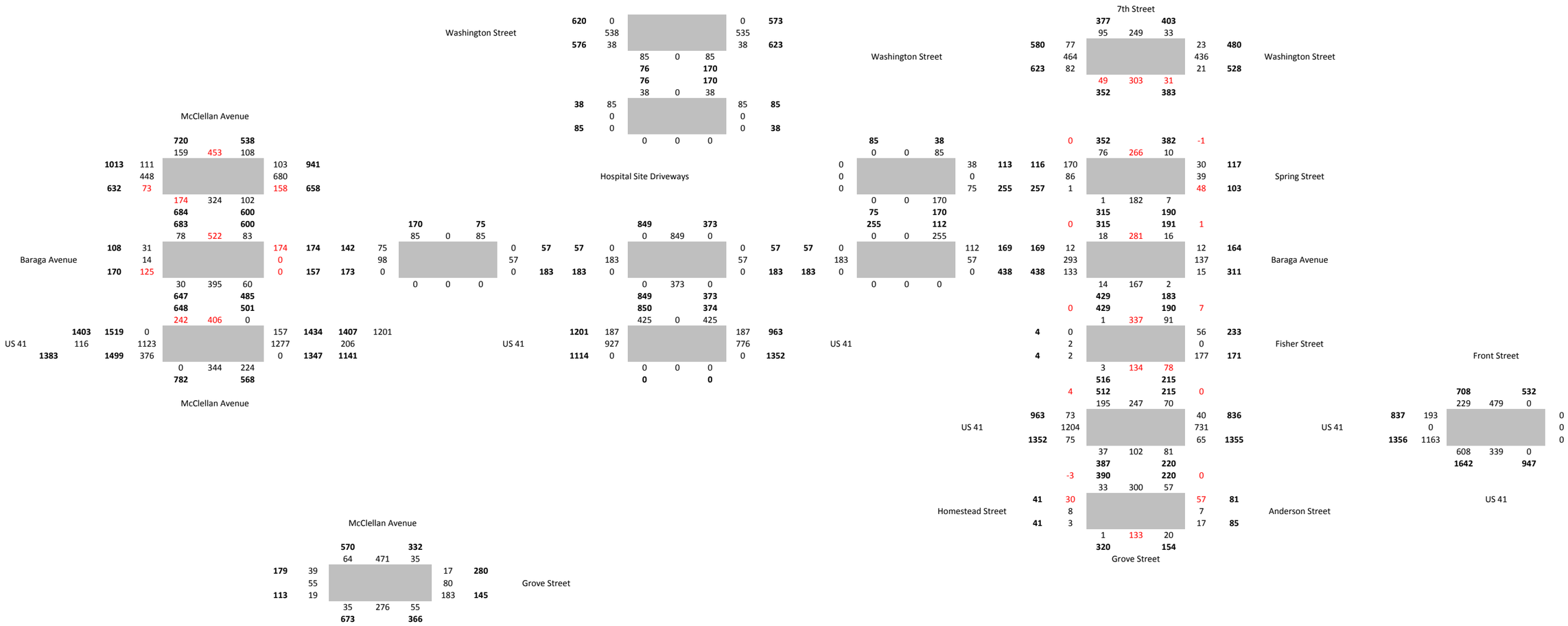
	AM	PM
IN	766	746
OUT	332	1698



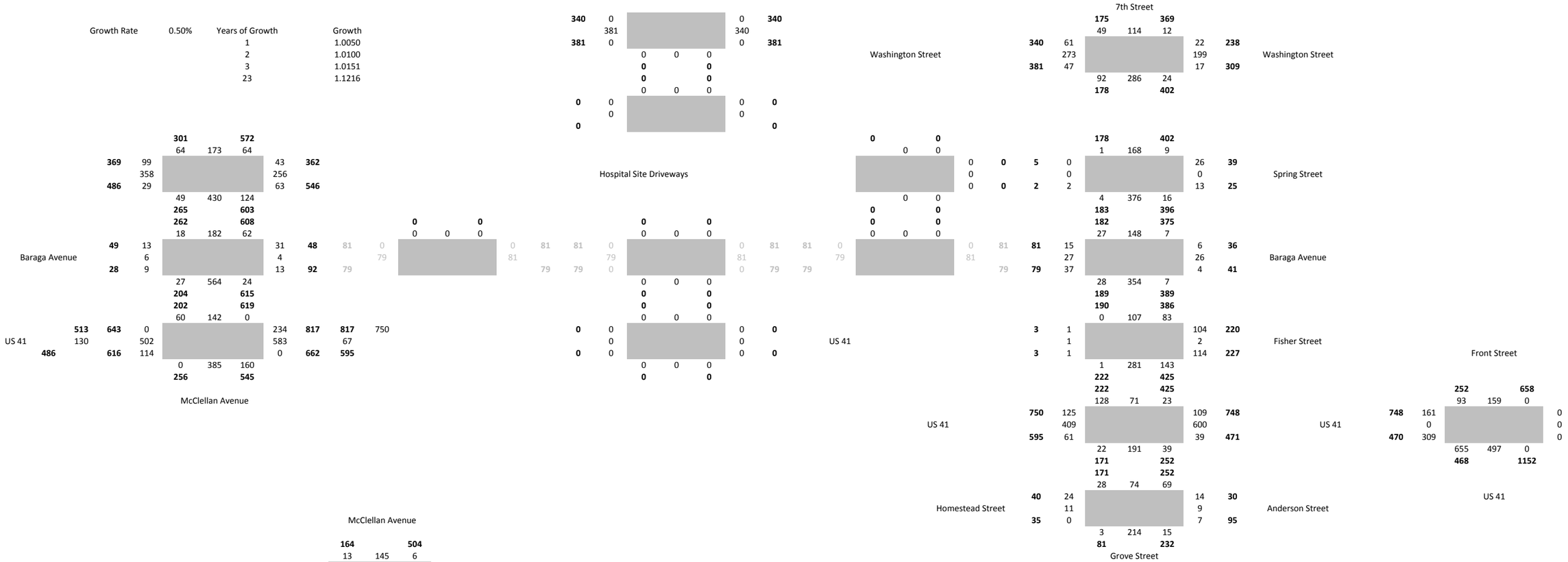
Build Site PM Total



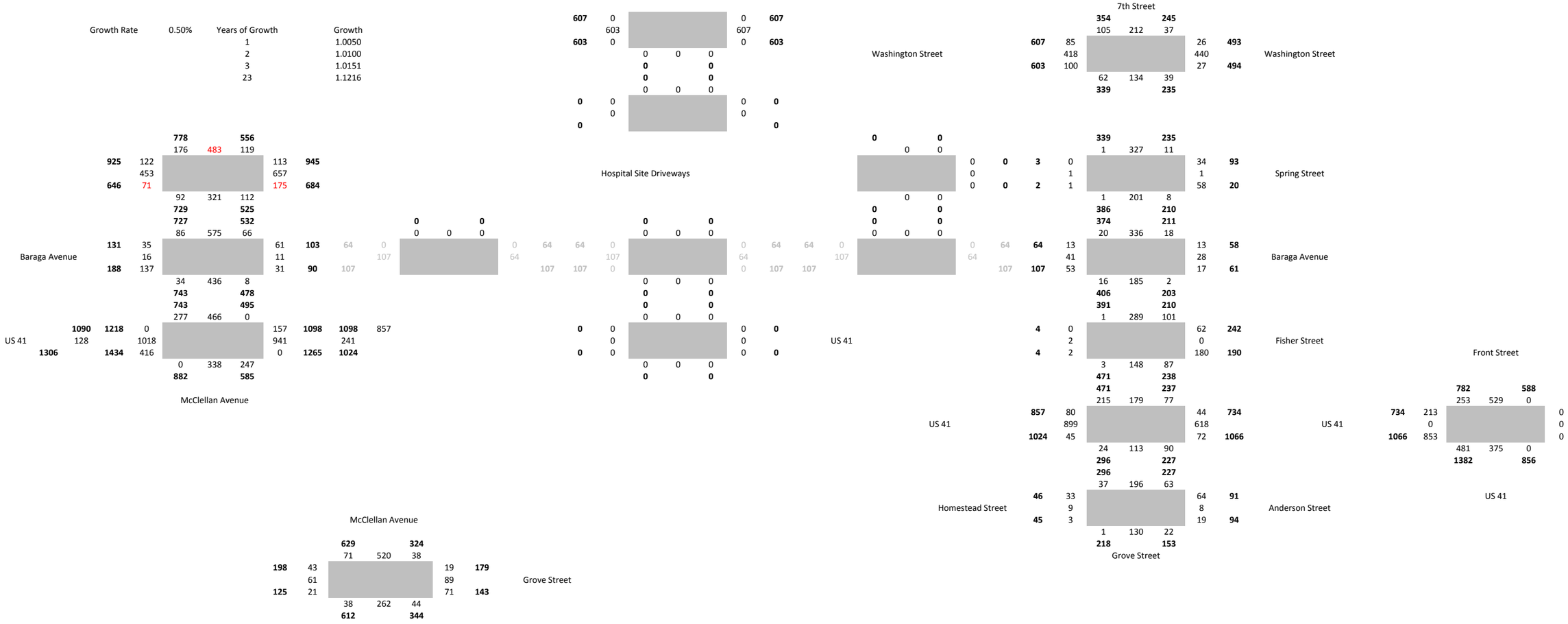
2018 Build AM TF Bal

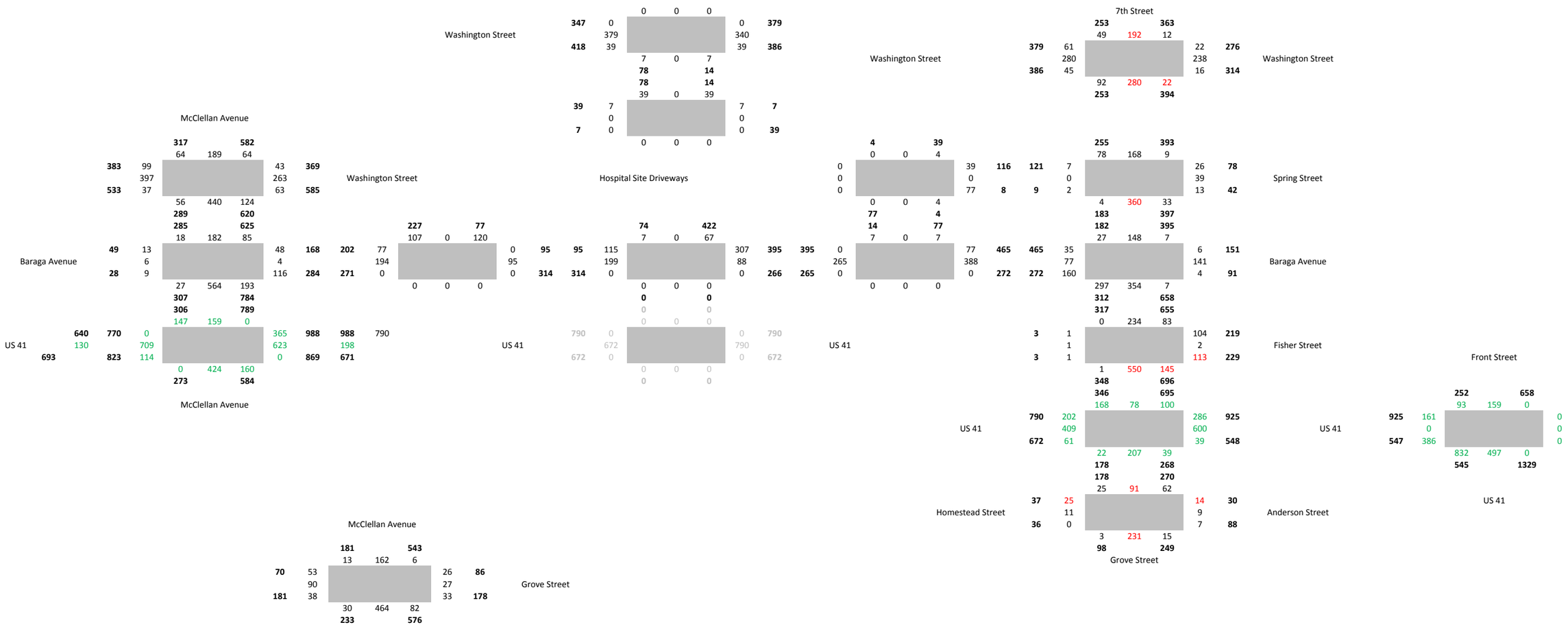

7th Street
Washington Street
Washington Street
Washington Street
McClellan Avenue
Hospital Site Driveways
Spring Street
Baraga Avenue
Baraga Avenue
US 41
US 41
Fisher Street
Front Street
McClellan Avenue
US 41
US 41
Homestead Street
Anderson Street
McClellan Avenue
Grove Street
Grove Street

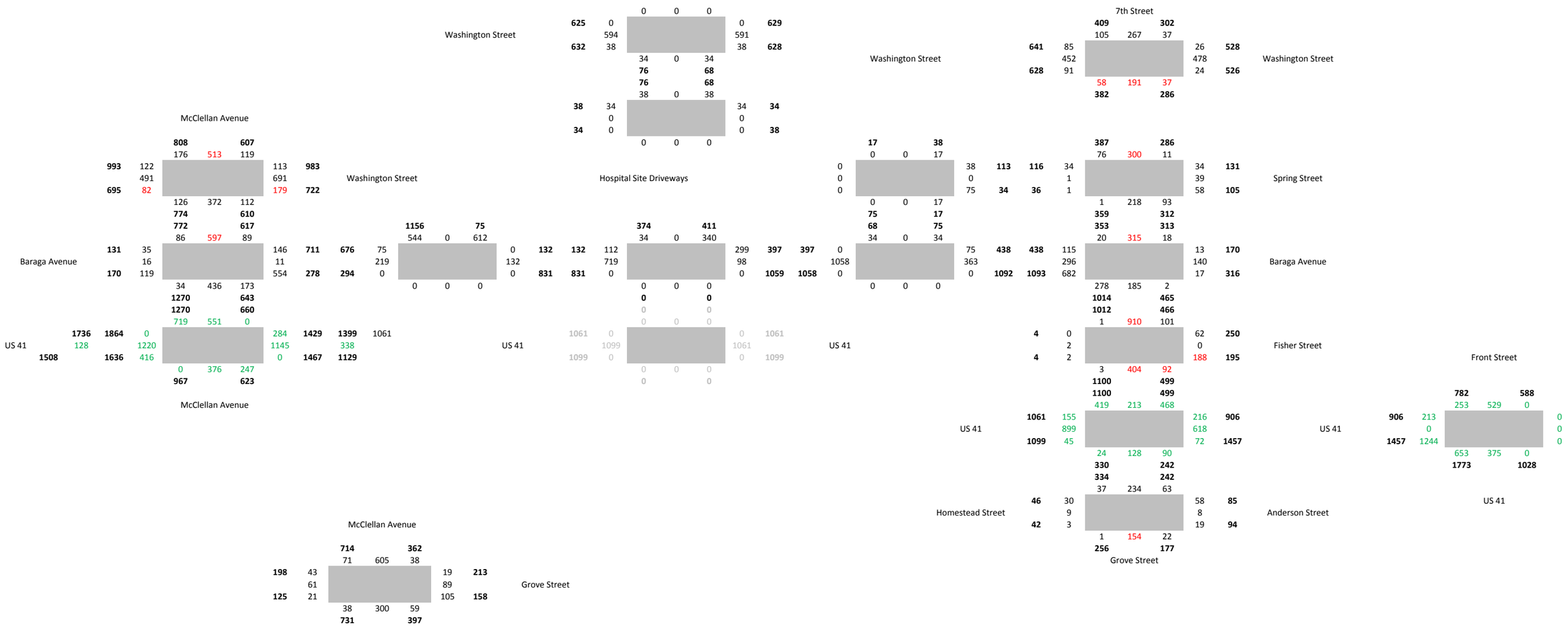
Growth Rate	0.50%	Years of Growth	Growth
		1	1.0050
		2	1.0100
		3	1.0151
		23	1.1216



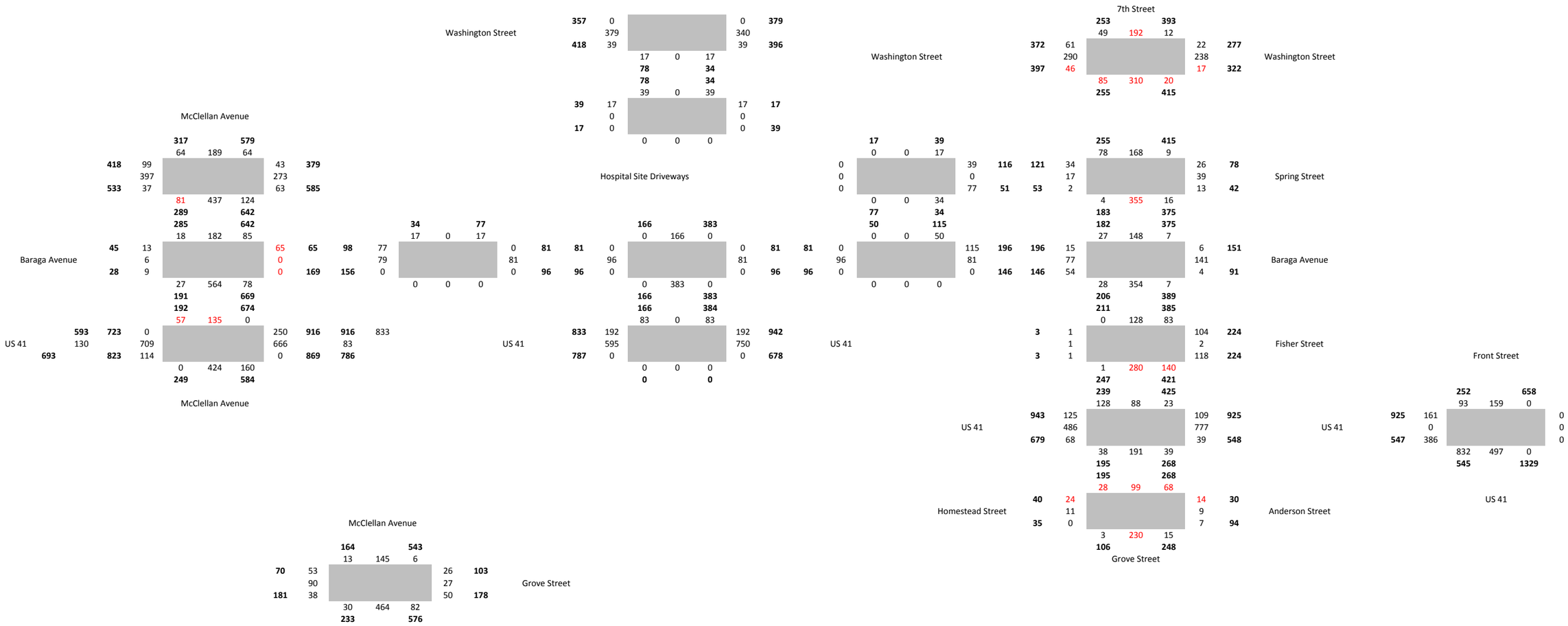
Growth Rate	0.50%	Years of Growth	Growth
		1	1.0050
		2	1.0100
		3	1.0151
		23	1.1216



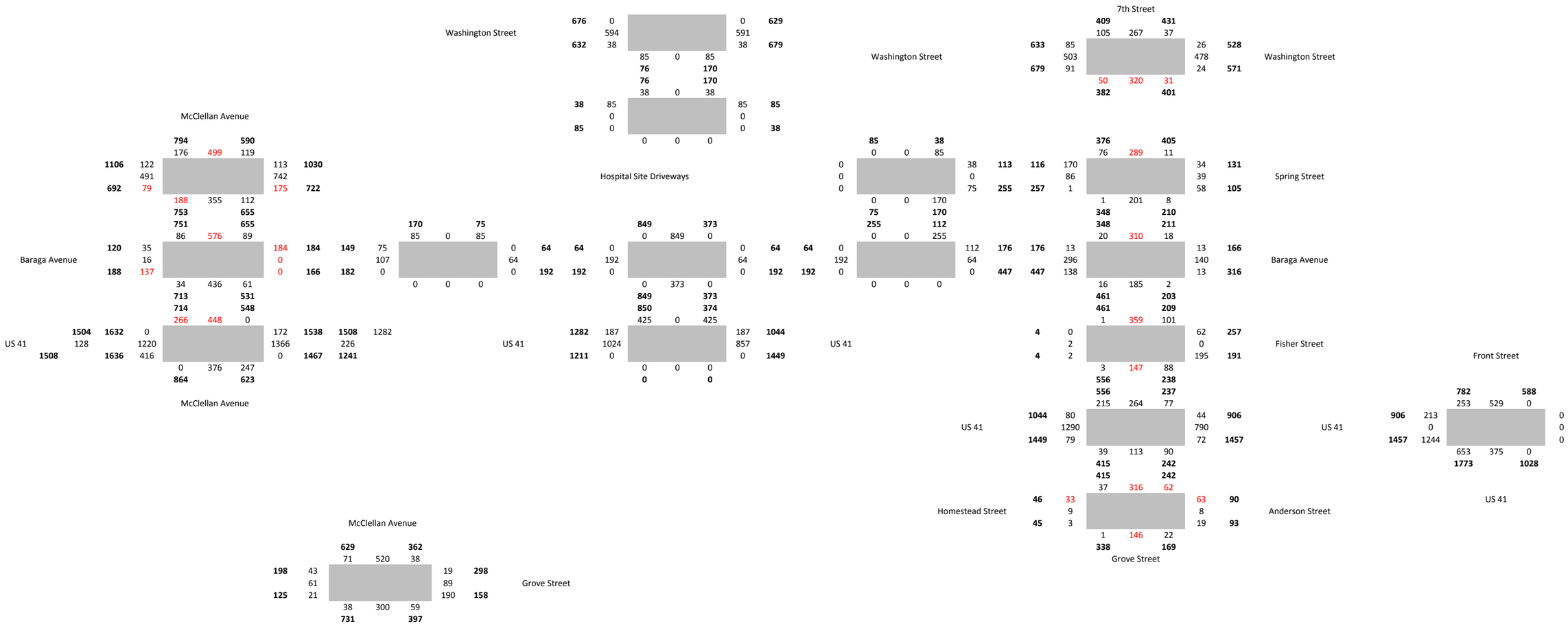

Washington Street
Washington Street
7th Street
Washington Street
McClellan Avenue
Washington Street
Hospital Site Driveways
Spring Street
Baraga Avenue
Baraga Avenue
US 41
US 41
US 41
Fisher Street
Front Street
McClellan Avenue
US 41
US 41
Homestead Street
Anderson Street
McClellan Avenue
Grove Street
Grove Street



2038 No Build PM TF Bal



2038 Build AM TF Bal



2038 Build PM TF Bal

APPENDIX C
CAPACITY ANALYSIS WORKSHEETS

YEAR 2015 EXISTING CONDITIONS
CAPACITY ANALYSIS RESULTS

US-41/Front St-2015 Existing-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2015 EX\2015 EX (Front St-US41).rod

File View Help

Project: Marquette Hospital Study-Existing 2015 | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2015 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 58

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	142	0	83	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	144	0	275	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	584	443	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	142	83	584	0	1511	1436	0.0964	0.0585	3.42	0.58	2.37	0.12	0.00	0.31	0.00	A	A	A
2	EB US 41	Free	144	275	142	0	1739	1444	0.0844	0.1929	2.95	1.89	2.25	0.10	0.00	0.26	0.00	A	A	A
3	NB US 41/Front ...	None	1027		144		2034		0.5184		9.17		9.17	2.08		5.18		A		A
All	Intersection												6.52							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Front St-2015 Existing-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2015 EX\2015 EX (Front St-US41).rod

File View Help

Project: Marquette Hospital Study-Existing 2015 | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2015 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 60

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	472	0	226	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	190	0	761	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	430	334	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	472	226	430	0	1615	1436	0.2993	0.1593	5.35	1.58	4.13	0.47	0.00	1.23	0.00	A	A	A
2	EB US 41	Free	190	761	472	0	1521	1444	0.1279	0.5337	3.79	3.64	3.67	0.16	0.00	0.42	0.00	A	A	A
3	NB US 41/Front ...	None	764		190		2001		0.3914		7.62		7.62	1.24		3.17		A		A
All	Intersection												5.05							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

HCM 2010 Signalized Intersection Summary
17: McClellan Ave & Washington St

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	319	26	56	228	38	44	383	111	57	154	57
Future Volume (veh/h)	88	319	26	56	228	38	44	383	111	57	154	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1822	1938
Adj Flow Rate, veh/h	96	347	28	61	248	41	48	416	121	62	167	62
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	8	8
Cap, veh/h	545	1515	122	497	1391	227	474	1006	290	328	927	332
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1086	3319	266	1003	3048	497	1147	2713	781	882	2499	895
Grp Volume(v), veh/h	96	184	191	61	143	146	48	270	267	62	114	115
Grp Sat Flow(s),veh/h/ln	1086	1770	1816	1003	1770	1775	1147	1770	1725	882	1731	1664
Q Serve(g_s), s	4.0	4.4	4.5	2.8	3.3	3.4	2.1	7.9	8.1	3.9	3.1	3.3
Cycle Q Clear(g_c), s	7.5	4.4	4.5	7.2	3.3	3.4	5.4	7.9	8.1	12.0	3.1	3.3
Prop In Lane	1.00		0.15	1.00		0.28	1.00		0.45	1.00		0.54
Lane Grp Cap(c), veh/h	545	808	829	497	808	810	474	656	640	328	642	617
V/C Ratio(X)	0.18	0.23	0.23	0.12	0.18	0.18	0.10	0.41	0.42	0.19	0.18	0.19
Avail Cap(c_a), veh/h	545	808	829	497	808	810	474	656	640	328	642	617
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	11.6	11.6	13.8	11.3	11.3	16.7	16.4	16.4	20.9	14.8	14.9
Incr Delay (d2), s/veh	0.7	0.7	0.6	0.5	0.5	0.5	0.4	1.9	2.0	1.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.3	2.4	0.8	1.7	1.8	0.7	4.2	4.1	1.1	1.6	1.6
LnGrp Delay(d),s/veh	14.2	12.2	12.2	14.3	11.7	11.8	17.1	18.3	18.4	22.2	15.5	15.6
LnGrp LOS	B	B	B	B	B	B	B	B	B	C	B	B
Approach Vol, veh/h		471			350			585			291	
Approach Delay, s/veh		12.6			12.2			18.2			16.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.0		38.1		32.0		38.1
Change Period (Y+Rc), s		* 6		* 6.1		* 6		* 6.1
Max Green Setting (Gmax), s		* 26		* 32		* 26		* 32
Max Q Clear Time (g_c+I1), s		10.1		9.5		14.0		9.2
Green Ext Time (p_c), s		4.6		4.6		4.0		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SBL	SBR	SBR2	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (veh/h)	21	64	114	111	365	54	34	535	97	19	170	34
Future Volume (veh/h)	21	64	114	111	365	54	34	535	97	19	170	34
Number	3	18	18	1	6	16	5	2	12	7	7	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1891	1986	1986	1986	1819	1910	1956	1809	1881	1948	1948	1870
Adj Flow Rate, veh/h	27	133	133	166	493	68	40	677	133	28	28	38
Adj No. of Lanes	1	0	0	1	2	1	1	2	1	1	1	0
Peak Hour Factor	0.79	0.88	0.86	0.67	0.74	0.79	0.85	0.79	0.73	0.68	0.83	0.89
Percent Heavy Veh, %	5	0	0	0	5	0	0	4	0	0	0	0
Cap, veh/h	122	157	157	208	1676	787	205	1667	775	142	142	40
Arrive On Green	0.16	0.14	0.14	0.11	0.49	0.49	0.11	0.49	0.49	0.16	0.16	0.14
Sat Flow, veh/h	1149	1151	1151	1891	3455	1623	1863	3436	1599	1224	1224	296
Grp Volume(v), veh/h	27	206	206	166	493	68	40	677	133	28	28	243
Grp Sat Flow(s),veh/h/ln	1149	1782	1782	1891	1728	1623	1863	1718	1599	1224	1224	1895
Q Serve(g_s), s	1.9	9.0	9.0	6.9	6.9	1.8	1.6	10.1	3.7	1.8	1.8	10.2
Cycle Q Clear(g_c), s	12.0	9.0	9.0	6.9	6.9	1.8	1.6	10.1	3.7	10.8	10.8	10.2
Prop In Lane	1.00	0.65	0.65	1.00		1.00	1.00		1.00	1.00	1.00	0.16
Lane Grp Cap(c), veh/h	122	243	243	208	1676	787	205	1667	775	142	142	258
V/C Ratio(X)	0.22	0.85	0.85	0.80	0.29	0.09	0.20	0.41	0.17	0.20	0.20	0.94
Avail Cap(c_a), veh/h	122	243	243	208	1676	787	205	1667	775	142	142	258
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	33.7	33.7	34.7	12.4	11.1	32.4	13.2	11.6	37.6	37.6	34.2
Incr Delay (d2), s/veh	0.9	23.5	23.5	26.5	0.4	0.2	2.1	0.7	0.5	0.7	0.7	40.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.0	6.0	5.1	3.3	0.8	0.9	5.0	1.7	0.6	0.6	8.2
LnGrp Delay(d),s/veh	39.6	57.2	57.2	61.2	12.8	11.3	34.5	13.9	12.1	38.2	38.2	74.4
LnGrp LOS	D	E	E	E	B	B	C	B	B	D	D	E
Approach Vol, veh/h	233				727			850		271	271	
Approach Delay, s/veh	55.2				23.7			14.6		70.7	70.7	
Approach LOS	E				C			B		E	E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	45.0		20.0	15.0	45.0		20.0
Change Period (Y+Rc), s	* 6.2	* 6.2		* 9.1	* 6.2	* 6.2		* 9.1
Max Green Setting (Gmax), s	* 8.8	* 39		* 11	* 8.8	* 39		* 11
Max Q Clear Time (g_c+I1), s	8.9	12.1		12.8	3.6	8.9		14.0
Green Ext Time (p_c), s	0.0	5.4		0.0	0.0	5.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	243	44	14	177	20	77	241	21	11	101	44
Future Volume (veh/h)	54	243	44	14	177	20	77	241	21	11	101	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1839	1946	1900	1900	1976	1938	1903	2016	1769	1843	1917
Adj Flow Rate, veh/h	65	328	70	16	239	28	151	377	36	16	151	56
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.74	0.63	0.88	0.74	0.71	0.51	0.64	0.58	0.69	0.67	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	387	496	106	282	564	66	607	787	75	418	590	219
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1110	1469	313	1000	1669	196	1217	1711	163	920	1283	476
Grp Volume(v), veh/h	65	0	398	16	0	267	151	0	413	16	0	207
Grp Sat Flow(s),veh/h/ln	1110	0	1782	1000	0	1864	1217	0	1874	920	0	1759
Q Serve(g_s), s	2.6	0.0	10.2	0.7	0.0	5.9	4.6	0.0	8.2	0.7	0.0	3.8
Cycle Q Clear(g_c), s	8.5	0.0	10.2	10.9	0.0	5.9	8.5	0.0	8.2	8.8	0.0	3.8
Prop In Lane	1.00		0.18	1.00		0.10	1.00		0.09	1.00		0.27
Lane Grp Cap(c), veh/h	387	0	602	282	0	630	607	0	862	418	0	809
V/C Ratio(X)	0.17	0.00	0.66	0.06	0.00	0.42	0.25	0.00	0.48	0.04	0.00	0.26
Avail Cap(c_a), veh/h	730	0	1153	592	0	1207	607	0	862	418	0	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	15.1	19.7	0.0	13.7	11.4	0.0	10.0	13.0	0.0	8.8
Incr Delay (d2), s/veh	0.2	0.0	1.2	0.1	0.0	0.5	1.0	0.0	1.9	0.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	5.2	0.2	0.0	3.1	1.7	0.0	4.6	0.2	0.0	2.0
LnGrp Delay(d),s/veh	17.2	0.0	16.3	19.8	0.0	14.1	12.4	0.0	11.9	13.2	0.0	9.6
LnGrp LOS	B		B	B		B	B		B	B		A
Approach Vol, veh/h		463			283			564			223	
Approach Delay, s/veh		16.5			14.5			12.0			9.9	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		23.5		30.0		23.5
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		10.5		12.2		10.8		12.9
Green Ext Time (p_c), s		3.9		4.4		3.8		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	520	209	0	343	0	0	126	54
Future Volume (vph)	0	0	0	0	520	209	0	343	0	0	126	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3430	1586		1710			1889	1611
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3430	1586		1710			1889	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.86	0.76	0.92	0.77	0.82	0.92	0.78	0.66
Adj. Flow (vph)	0	0	0	0	605	275	0	445	0	0	162	82
RTOR Reduction (vph)	0	0	0	0	0	154	0	0	0	0	0	48
Lane Group Flow (vph)	0	0	0	0	605	121	0	445	0	0	162	34
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	4%	0%	0%	2%	8%	0%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1504	695		786			774	660
v/s Ratio Prot					c0.18			c0.26			0.09	
v/s Ratio Perm						0.08						0.02
v/c Ratio					0.40	0.17		0.57			0.21	0.05
Uniform Delay, d1					15.3	13.6		15.8			15.2	14.2
Progression Factor					1.00	1.00		0.04			1.00	1.00
Incremental Delay, d2					0.8	0.5		2.4			0.6	0.1
Delay (s)					16.1	14.2		3.0			15.8	14.4
Level of Service					B	B		A			B	B
Approach Delay (s)		0.0			15.5			3.0			15.3	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	447	102	0	0	0	0	343	142	0	126	0
Future Volume (vph)	0	447	102	0	0	0	0	343	142	0	126	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3504	2005					1788	1436		2442	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3504	2005					1788	1436		2442	
Peak-hour factor, PHF	0.92	0.64	0.87	0.92	0.92	0.92	0.92	0.79	0.77	0.92	0.78	0.66
Adj. Flow (vph)	0	698	117	0	0	0	0	434	184	0	162	0
RTOR Reduction (vph)	0	0	66	0	0	0	0	0	81	0	0	0
Lane Group Flow (vph)	0	698	51	0	0	0	0	434	103	0	162	0
Heavy Vehicles (%)	0%	2%	1%	2%	2%	2%	0%	2%	8%	0%	2%	2%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1537	879					704	565		1083	
v/s Ratio Prot		c0.20						c0.24			0.07	
v/s Ratio Perm			0.03						0.07			
v/c Ratio		0.45	0.06					0.62	0.18		0.15	
Uniform Delay, d1		15.7	12.9					19.4	15.8		13.3	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		1.0	0.1					4.0	0.7		0.3	
Delay (s)		16.7	13.1					23.4	16.5		0.3	
Level of Service		B	B					C	B		A	
Approach Delay (s)		16.2			0.0			21.4			0.3	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	2.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Vol, veh/h	23	10	0	6	8	11	3	188	13	61	66	25
Future Vol, veh/h	23	10	0	6	8	11	3	188	13	61	66	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	8	-	-	10	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	11	0	7	9	12	3	204	14	66	72	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	446	443	85	441	450	211	99	0	0	218	0	0
Stage 1	218	218	-	218	218	-	-	-	-	-	-	-
Stage 2	228	225	-	223	232	-	-	-	-	-	-	-
Critical Hdwy	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	563	548	981	433	413	791	1494	-	-	1352	-	-
Stage 1	813	749	-	712	656	-	-	-	-	-	-	-
Stage 2	805	745	-	706	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	523	518	981	409	391	791	1494	-	-	1352	-	-
Mov Cap-2 Maneuver	523	518	-	409	391	-	-	-	-	-	-	-
Stage 1	811	710	-	711	655	-	-	-	-	-	-	-
Stage 2	781	744	-	659	610	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	12.4	12.5	0.1	3.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1494	-	-	510	521	1352	-	-
HCM Lane V/C Ratio	0.002	-	-	0.053	0.069	0.049	-	-
HCM Control Delay (s)	7.4	0	-	12.5	12.4	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0.2	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	668	0	60	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	668	0	60	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	726	0	65	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	363	726	0	726	726	362
Stage 1	-	-	-	0	0	-	726	726	-
Stage 2	-	-	-	363	726	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	610	350	-	360	350	635
Stage 1	-	-	-	-	-	-	440	428	-
Stage 2	-	-	-	674	428	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	610	0	-	360	0	635
Mov Cap-2 Maneuver	-	-	-	610	0	-	360	0	-
Stage 1	-	-	-	-	0	-	440	0	-
Stage 2	-	-	-	674	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	11.6	0
HCM LOS		B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	610	-	-	-	-	-
HCM Lane V/C Ratio	0.107	-	-	-	-	-
HCM Control Delay (s)	11.6	0	0	-	-	0
HCM Lane LOS	B	A	A	-	-	A
HCM 95th %tile Q(veh)	0.4	-	-	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	433	0	0	0	0	0	0	0	116	0	0
Future Vol, veh/h	0	433	0	0	0	0	0	0	0	116	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	471	0	0	0	0	0	0	0	126	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	471	471	234	235	471	0
Stage 1	-	-	-	471	471	-	0	0	-
Stage 2	-	-	-	0	0	-	235	471	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	522	489	768	732	489	-
Stage 1	-	-	-	594	558	-	-	-	-
Stage 2	-	-	-	-	-	-	782	558	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	522	0	768	732	0	-
Mov Cap-2 Maneuver	-	-	-	522	0	-	732	0	-
Stage 1	-	-	-	594	0	-	-	0	-
Stage 2	-	-	-	-	0	-	782	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	10.9
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	732	-
HCM Lane V/C Ratio	-	-	-	-	0.172	-
HCM Control Delay (s)	0	0	-	-	10.9	0
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	-	0.6	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	2	12	0	23	4	316	14	8	150	1
Future Vol, veh/h	0	0	2	12	0	23	4	316	14	8	150	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	60	92	48	50	72	35	67	73	25
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	0	0	8	20	0	48	8	439	40	12	205	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	730	726	207	710	708	459	209	0	0	479	0	0
Stage 1	231	231	-	475	475	-	-	-	-	-	-	-
Stage 2	499	495	-	235	233	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	278	289	815	365	377	614	1374	-	-	1094	-	-
Stage 1	728	672	-	590	576	-	-	-	-	-	-	-
Stage 2	485	479	-	783	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	252	283	815	356	369	614	1374	-	-	1094	-	-
Mov Cap-2 Maneuver	252	283	-	356	369	-	-	-	-	-	-	-
Stage 1	722	664	-	585	571	-	-	-	-	-	-	-
Stage 2	444	475	-	766	716	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	13.2	0.1	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1374	-	-	815	506	1094	-	-
HCM Lane V/C Ratio	0.006	-	-	0.01	0.134	0.011	-	-
HCM Control Delay (s)	7.6	0	-	9.5	13.2	8.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.5	0	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	24	33	4	23	5	25	316	6	6	132	24
Future Vol, veh/h	13	24	33	4	23	5	25	316	6	6	132	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	65	60	69	50	72	31	69	70	85	85	73	75
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	20	40	48	8	32	16	36	451	7	7	181	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	762	742	197	782	754	455	213	0	0	458	0	0
Stage 1	211	211	-	527	527	-	-	-	-	-	-	-
Stage 2	551	531	-	255	227	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	353	376	859	328	355	617	1369	-	-	1114	-	-
Stage 1	815	749	-	554	547	-	-	-	-	-	-	-
Stage 2	555	562	-	765	729	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	309	360	859	275	340	617	1369	-	-	1114	-	-
Mov Cap-2 Maneuver	309	360	-	275	340	-	-	-	-	-	-	-
Stage 1	786	744	-	535	528	-	-	-	-	-	-	-
Stage 2	490	542	-	679	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15	16.2	0.6	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1369	-	-	466	376	1114	-	-
HCM Lane V/C Ratio	0.026	-	-	0.231	0.149	0.006	-	-
HCM Control Delay (s)	7.7	0	-	15	16.2	8.3	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.5	0	-	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	1	1	97	2	93	1	251	127	74	99	0
Future Vol, veh/h	1	1	1	97	2	93	1	251	127	74	99	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	76	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-10	-	-	9	-	-	-1	-
Peak Hour Factor	25	25	25	81	50	64	25	81	65	76	88	92
Heavy Vehicles, %	0	0	0	0	0	3	0	0	0	8	1	2
Mvmt Flow	4	4	4	120	4	145	4	310	195	97	113	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	700	625	113	629	625	310	113	0	0	310	0	0
Stage 1	307	307	-	318	318	-	-	-	-	-	-	-
Stage 2	393	318	-	311	307	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	5.1	4.5	5.23	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	7.1	6.5	-	4.1	3.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	4.1	3.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.327	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	294	340	931	564	572	793	1489	-	-	1217	-	-
Stage 1	649	610	-	832	784	-	-	-	-	-	-	-
Stage 2	570	602	-	836	788	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	224	312	931	521	524	793	1489	-	-	1217	-	-
Mov Cap-2 Maneuver	224	312	-	521	524	-	-	-	-	-	-	-
Stage 1	646	561	-	829	781	-	-	-	-	-	-	-
Stage 2	461	600	-	761	725	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.9	14.6	0.1	3.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1489	-	-	343	640	1217	-	-
HCM Lane V/C Ratio	0.003	-	-	0.035	0.42	0.08	-	-
HCM Control Delay (s)	7.4	0	-	15.9	14.6	8.2	-	-
HCM Lane LOS	A	A	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.1	0.3	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	12	5	8	12	4	28	24	503	21	55	162	16
Future Vol, veh/h	12	5	8	12	4	28	24	503	21	55	162	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	50	42	40	60	50	64	55	88	66	59	89	57
Heavy Vehicles, %	0	0	0	0	0	0	0	1	5	0	3	0
Mvmt Flow	24	12	20	20	8	44	44	572	32	93	182	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	759	1073	105	958	1072	302	210	0	0	603	0	0
Stage 1	382	382	-	675	675	-	-	-	-	-	-	-
Stage 2	377	691	-	283	397	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.2	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	264	186	928	239	250	712	1373	-	-	984	-	-
Stage 1	580	578	-	447	492	-	-	-	-	-	-	-
Stage 2	584	400	-	728	634	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	213	158	928	195	213	712	1373	-	-	984	-	-
Mov Cap-2 Maneuver	213	158	-	195	213	-	-	-	-	-	-	-
Stage 1	552	516	-	426	468	-	-	-	-	-	-	-
Stage 2	513	381	-	621	566	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22	17.6	0.7	2.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1373	-	-	267	356	984	-	-
HCM Lane V/C Ratio	0.032	-	-	0.209	0.202	0.095	-	-
HCM Control Delay (s)	7.7	0.2	-	22	17.6	9	0.2	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.7	0.3	-	-

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	47	80	34	0	23	24	23	0	27	379	59
Future Vol, veh/h	0	47	80	34	0	23	24	23	0	27	379	59
Peak Hour Factor	0.92	0.78	0.73	0.57	0.92	0.72	0.75	0.64	0.92	0.68	0.78	0.73
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	4	4	0
Mvmt Flow	0	60	110	60	0	32	32	36	0	40	486	81
Number of Lanes	0	1	1	0	0	1	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	2
HCM Control Delay	12.5	11.1	15.2
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	68%	0%	70%	0%	51%	0%	100%	78%
Vol Right, %	0%	0%	32%	0%	30%	0%	49%	0%	0%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	253	185	47	114	23	47	5	86	55
LT Vol	27	0	0	47	0	23	0	5	0	0
Through Vol	0	253	126	0	80	0	24	0	86	43
RT Vol	0	0	59	0	34	0	23	0	0	12
Lane Flow Rate	40	324	243	60	169	32	68	12	113	73
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.076	0.573	0.409	0.127	0.323	0.071	0.136	0.025	0.224	0.14
Departure Headway (Hd)	6.87	6.364	6.069	7.576	6.865	8.044	7.196	7.716	7.242	7.052
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	519	564	590	471	520	448	501	467	499	512
Service Time	4.647	4.14	3.845	5.366	4.655	5.744	4.896	5.416	4.942	4.752
HCM Lane V/C Ratio	0.077	0.574	0.412	0.127	0.325	0.071	0.136	0.026	0.226	0.143
HCM Control Delay	10.2	17.4	13	11.5	12.9	11.4	11	10.6	12	10.9
HCM Lane LOS	B	C	B	B	B	B	B	B	B	B
HCM 95th-tile Q	0.2	3.6	2	0.4	1.4	0.2	0.5	0.1	0.9	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	5	129	12
Future Vol, veh/h	0	5	129	12
Peak Hour Factor	0.92	0.42	0.76	0.75
Heavy Vehicles, %	2	0	2	0
Mvmt Flow	0	12	170	16
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.5
HCM LOS	B

Lane

HCM 2010 Signalized Intersection Summary
17: McClellan Ave & Washington St

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	404	57	142	586	101	82	286	100	106	392	157
Future Volume (veh/h)	109	404	57	142	586	101	82	286	100	106	392	157
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1823	1938
Adj Flow Rate, veh/h	118	439	62	154	637	110	89	311	109	115	426	171
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	8	8
Cap, veh/h	319	1405	197	425	1361	235	301	974	335	387	912	363
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	711	3117	438	894	3020	521	818	2586	889	982	2423	963
Grp Volume(v), veh/h	118	248	253	154	373	374	89	211	209	115	303	294
Grp Sat Flow(s),veh/h/ln	711	1770	1785	894	1770	1771	818	1770	1706	982	1732	1654
Q Serve(g_s), s	9.7	6.3	6.4	9.3	10.3	10.3	6.5	5.9	6.1	6.6	9.3	9.4
Cycle Q Clear(g_c), s	20.0	6.3	6.4	15.7	10.3	10.3	15.9	5.9	6.1	12.7	9.3	9.4
Prop In Lane	1.00		0.25	1.00		0.29	1.00		0.52	1.00		0.58
Lane Grp Cap(c), veh/h	319	798	805	425	798	798	301	666	642	387	652	623
V/C Ratio(X)	0.37	0.31	0.31	0.36	0.47	0.47	0.30	0.32	0.33	0.30	0.46	0.47
Avail Cap(c_a), veh/h	319	798	805	425	798	798	301	666	642	387	652	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	12.3	12.3	17.3	13.4	13.4	22.6	15.5	15.5	20.0	16.5	16.6
Incr Delay (d2), s/veh	3.3	1.0	1.0	2.4	2.0	2.0	2.5	1.2	1.3	2.0	2.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.3	3.3	2.6	5.4	5.4	1.7	3.1	3.1	2.0	4.8	4.7
LnGrp Delay(d),s/veh	23.7	13.3	13.3	19.7	15.4	15.4	25.1	16.7	16.9	22.0	18.9	19.1
LnGrp LOS	C	B	B	B	B	B	C	B	B	C	B	B
Approach Vol, veh/h		619			901			509			712	
Approach Delay, s/veh		15.3			16.1			18.2			19.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.4		37.7		32.4		37.7
Change Period (Y+Rc), s		* 6		* 6.1		* 6		* 6.1
Max Green Setting (Gmax), s		* 26		* 32		* 26		* 32
Max Q Clear Time (g_c+I1), s		17.9		22.0		14.7		17.7
Green Ext Time (p_c), s		4.5		6.0		5.6		7.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	72	801	40	64	551	39	22	100	80	69	160	192
Future Volume (veh/h)	72	801	40	64	551	39	22	100	80	69	160	192
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1966	1872	1910	1956	1844	1758	1948	1948	1870	1986	1977	1986
Adj Flow Rate, veh/h	86	817	48	97	605	44	31	104	104	86	190	246
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.84	0.98	0.83	0.66	0.91	0.88	0.72	0.96	0.77	0.80	0.84	0.78
Percent Heavy Veh, %	1	2	0	0	2	7	0	0	0	0	1	1
Cap, veh/h	159	1369	625	158	1349	575	133	234	234	318	205	265
Arrive On Green	0.09	0.38	0.38	0.09	0.38	0.38	0.28	0.26	0.26	0.28	0.26	0.26
Sat Flow, veh/h	1873	3557	1623	1863	3504	1494	992	895	895	1246	783	1014
Grp Volume(v), veh/h	86	817	48	97	605	44	31	0	208	86	0	436
Grp Sat Flow(s),veh/h/ln	1873	1778	1623	1863	1752	1494	992	0	1790	1246	0	1798
Q Serve(g_s), s	3.5	14.7	1.5	4.0	10.3	1.5	2.5	0.0	7.8	4.8	0.0	18.9
Cycle Q Clear(g_c), s	3.5	14.7	1.5	4.0	10.3	1.5	21.4	0.0	7.8	12.6	0.0	18.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.56
Lane Grp Cap(c), veh/h	159	1369	625	158	1349	575	133	0	468	318	0	470
V/C Ratio(X)	0.54	0.60	0.08	0.61	0.45	0.08	0.23	0.00	0.44	0.27	0.00	0.93
Avail Cap(c_a), veh/h	159	1369	625	158	1349	575	133	0	468	318	0	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	19.6	15.6	35.3	18.3	15.6	37.8	0.0	24.7	28.7	0.0	28.8
Incr Delay (d2), s/veh	12.5	1.9	0.2	16.4	1.1	0.3	0.9	0.0	0.7	0.5	0.0	24.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.5	0.7	2.8	5.2	0.7	0.7	0.0	3.9	1.7	0.0	12.6
LnGrp Delay(d),s/veh	47.6	21.6	15.8	51.7	19.4	15.8	38.7	0.0	25.4	29.1	0.0	53.7
LnGrp LOS	D	C	B	D	B	B	D		C	C		D
Approach Vol, veh/h		951			746			239			522	
Approach Delay, s/veh		23.6			23.4			27.1			49.6	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	37.0		30.0	13.0	37.0		30.0
Change Period (Y+Rc), s	* 6.2	* 6.2		* 9.1	* 6.2	* 6.2		* 9.1
Max Green Setting (Gmax), s	* 6.8	* 31		* 21	* 6.8	* 31		* 21
Max Q Clear Time (g_c+I1), s	5.5	12.3		23.4	6.0	16.7		20.9
Green Ext Time (p_c), s	0.0	5.7		0.0	0.0	5.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.4
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	373	88	22	392	23	55	119	35	33	195	94
Future Volume (veh/h)	76	373	88	22	392	23	55	119	35	33	195	94
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1872	1946	1900	1900	1976	1938	1910	2016	1769	1843	1917
Adj Flow Rate, veh/h	85	401	106	25	461	32	75	151	54	40	244	101
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.89	0.93	0.83	0.88	0.85	0.72	0.73	0.79	0.65	0.83	0.80	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	316	546	144	265	747	52	388	537	192	477	495	205
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	903	1284	339	905	1756	122	1073	1344	481	1113	1239	513
Grp Volume(v), veh/h	85	0	507	25	0	493	75	0	205	40	0	345
Grp Sat Flow(s),veh/h/ln	903	0	1623	905	0	1878	1073	0	1825	1113	0	1752
Q Serve(g_s), s	5.0	0.0	16.1	1.5	0.0	12.6	3.5	0.0	4.7	1.6	0.0	9.1
Cycle Q Clear(g_c), s	17.6	0.0	16.1	17.5	0.0	12.6	12.5	0.0	4.7	6.2	0.0	9.1
Prop In Lane	1.00		0.21	1.00		0.06	1.00		0.26	1.00		0.29
Lane Grp Cap(c), veh/h	316	0	690	265	0	798	388	0	729	477	0	700
V/C Ratio(X)	0.27	0.00	0.73	0.09	0.00	0.62	0.19	0.00	0.28	0.08	0.00	0.49
Avail Cap(c_a), veh/h	440	0	912	389	0	1055	388	0	729	477	0	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	14.8	22.1	0.0	13.8	18.5	0.0	12.5	14.6	0.0	13.8
Incr Delay (d2), s/veh	0.5	0.0	2.2	0.2	0.0	0.8	1.1	0.0	1.0	0.3	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	7.6	0.4	0.0	6.6	1.1	0.0	2.5	0.5	0.0	4.8
LnGrp Delay(d),s/veh	21.1	0.0	17.0	22.3	0.0	14.6	19.6	0.0	13.5	15.0	0.0	16.3
LnGrp LOS	C		B	C		B	B		B	B		B
Approach Vol, veh/h		592			518			280			385	
Approach Delay, s/veh		17.5			15.0			15.1			16.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		31.6		30.0		31.6
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		14.5		19.6		11.1		19.5
Green Ext Time (p_c), s		2.9		6.2		3.4		6.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	839	140	0	301	0	0	416	247
Future Volume (vph)	0	0	0	0	839	140	0	301	0	0	416	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3497	1555		1710			1927	1644
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3497	1555		1710			1927	1644
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.91	0.74	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	0	0	0	922	189	0	376	0	0	452	291
RTOR Reduction (vph)	0	0	0	0	0	106	0	0	0	0	0	39
Lane Group Flow (vph)	0	0	0	0	922	83	0	376	0	0	452	252
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1534	682		786			790	674
v/s Ratio Prot					c0.26			0.22			c0.23	
v/s Ratio Perm						0.05						0.15
v/c Ratio					0.60	0.12		0.48			0.57	0.37
Uniform Delay, d1					17.1	13.3		15.0			18.2	16.4
Progression Factor					1.00	1.00		0.02			1.00	1.00
Incremental Delay, d2					1.8	0.4		1.8			3.0	1.6
Delay (s)					18.9	13.7		2.1			21.2	18.0
Level of Service					B	B		A			C	B
Approach Delay (s)		0.0			18.0			2.1			20.0	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	907	370	0	0	0	0	301	221	0	416	0
Future Volume (vph)	0	907	370	0	0	0	0	301	221	0	416	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2025					1788	1505		2491	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2025					1788	1505		2491	
Peak-hour factor, PHF	0.92	0.95	0.91	0.92	0.92	0.92	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	955	407	0	0	0	0	376	254	0	452	0
RTOR Reduction (vph)	0	0	163	0	0	0	0	0	36	0	0	0
Lane Group Flow (vph)	0	955	244	0	0	0	0	376	218	0	452	0
Heavy Vehicles (%)	0%	1%	0%	2%	2%	2%	0%	2%	3%	0%	0%	0%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1552	888					704	592		1105	
v/s Ratio Prot		c0.27						c0.21			0.18	
v/s Ratio Perm			0.12						0.14			
v/c Ratio		0.62	0.28					0.53	0.37		0.41	
Uniform Delay, d1		17.3	14.3					18.6	17.2		15.1	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		1.8	0.8					2.9	1.8		0.9	
Delay (s)		19.1	15.1					21.5	19.0		0.9	
Level of Service		B	B					C	B		A	
Approach Delay (s)		17.9			0.0			20.5			0.9	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	3.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Vol, veh/h	29	8	3	17	7	57	1	116	20	55	176	33
Future Vol, veh/h	29	8	3	17	7	57	1	116	20	55	176	33
Conflicting Peds, #/hr	0	0	0	0	0	0	106	0	20	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	8	-	-	10	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	9	3	18	8	62	1	126	22	60	191	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	503	479	315	474	486	137	227	0	0	148	0	0
Stage 1	329	329	-	139	139	-	-	-	-	-	-	-
Stage 2	174	150	-	335	347	-	-	-	-	-	-	-
Critical Hdwy	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	521	526	745	406	388	884	1341	-	-	1434	-	-
Stage 1	723	683	-	812	735	-	-	-	-	-	-	-
Stage 2	852	793	-	585	544	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	459	500	685	353	369	884	1232	-	-	1434	-	-
Mov Cap-2 Maneuver	459	500	-	353	369	-	-	-	-	-	-	-
Stage 1	722	650	-	811	734	-	-	-	-	-	-	-
Stage 2	783	792	-	503	518	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	13.3	11.8	0.1	1.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1232	-	-	615	479	1434	-	-
HCM Lane V/C Ratio	0.001	-	-	0.143	0.091	0.042	-	-
HCM Control Delay (s)	7.9	0	-	11.8	13.3	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	765	0	188	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	765	0	188	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	832	0	204	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	416	832	0	832	832	415
Stage 1	-	-	-	0	0	-	832	832	-
Stage 2	-	-	-	416	832	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	565	303	-	308	303	586
Stage 1	-	-	-	-	-	-	388	382	-
Stage 2	-	-	-	634	382	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	565	0	-	308	0	586
Mov Cap-2 Maneuver	-	-	-	565	0	-	308	0	-
Stage 1	-	-	-	-	0	-	388	0	-
Stage 2	-	-	-	634	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	14.9	0
HCM LOS		B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	565	-	-	-	-	-
HCM Lane V/C Ratio	0.362	-	-	-	-	-
HCM Control Delay (s)	14.9	0	0	-	-	0
HCM Lane LOS	B	A	A	-	-	A
HCM 95th %tile Q(veh)	1.6	-	-	-	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1163	0	0	0	0	0	0	0	114	0	0
Future Vol, veh/h	0	1163	0	0	0	0	0	0	0	114	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1264	0	0	0	0	0	0	0	124	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	1264	1264	631	632	1264	0
Stage 1	-	-	-	1264	1264	-	0	0	-
Stage 2	-	-	-	0	0	-	632	1264	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	161	168	424	413	168	-
Stage 1	-	-	-	229	239	-	-	-	-
Stage 2	-	-	-	-	-	-	492	239	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	161	0	424	413	0	-
Mov Cap-2 Maneuver	-	-	-	161	0	-	413	0	-
Stage 1	-	-	-	229	0	-	-	0	-
Stage 2	-	-	-	-	0	-	492	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	17.4
HCM LOS		A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	413	-
HCM Lane V/C Ratio	-	-	-	-	0.3	-
HCM Control Delay (s)	0	0	-	-	17.4	0
HCM Lane LOS	A	A	-	-	C	A
HCM 95th %tile Q(veh)	-	-	-	-	1.2	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1	1	52	1	30	1	179	7	10	292	1
Future Vol, veh/h	0	1	1	52	1	30	1	179	7	10	292	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	41	25	75	25	79	44	50	79	25
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	0	1	4	127	4	40	4	227	16	20	370	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	677	662	372	657	657	235	374	0	0	242	0	0
Stage 1	412	412	-	243	243	-	-	-	-	-	-	-
Stage 2	265	250	-	414	414	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	306	320	644	395	402	814	1196	-	-	1336	-	-
Stage 1	554	533	-	775	718	-	-	-	-	-	-	-
Stage 2	692	656	-	634	610	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	284	313	644	385	393	814	1196	-	-	1336	-	-
Mov Cap-2 Maneuver	284	313	-	385	393	-	-	-	-	-	-	-
Stage 1	552	523	-	772	715	-	-	-	-	-	-	-
Stage 2	652	653	-	617	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	18.3	0.1	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1196	-	-	525	439	1336	-	-
HCM Lane V/C Ratio	0.003	-	-	0.01	0.389	0.015	-	-
HCM Control Delay (s)	8	0	-	11.9	18.3	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	1.8	0	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	12	37	47	15	25	12	14	165	2	16	300	18
Future Vol, veh/h	12	37	47	15	25	12	14	165	2	16	300	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	60	62	69	63	69	60	58	83	50	37	71	56
Heavy Vehicles, %	8	0	0	0	0	0	7	1	0	0	0	0
Mvmt Flow	20	60	68	24	36	20	24	199	4	43	423	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	802	776	439	838	790	201	455	0	0	203	0	0
Stage 1	525	525	-	249	249	-	-	-	-	-	-	-
Stage 2	277	251	-	589	541	-	-	-	-	-	-	-
Critical Hdwy	6.78	6.1	6	6.9	6.3	6.1	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4	3.3	3.5	4	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	323	361	638	302	339	850	1080	-	-	1381	-	-
Stage 1	557	565	-	770	714	-	-	-	-	-	-	-
Stage 2	739	723	-	515	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	274	337	638	222	317	850	1080	-	-	1381	-	-
Mov Cap-2 Maneuver	274	337	-	222	317	-	-	-	-	-	-	-
Stage 1	543	541	-	751	696	-	-	-	-	-	-	-
Stage 2	667	705	-	392	517	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.4	19.5	0.9	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1080	-	-	414	327	1381	-	-
HCM Lane V/C Ratio	0.022	-	-	0.357	0.245	0.031	-	-
HCM Control Delay (s)	8.4	0	-	18.4	19.5	7.7	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	0.9	0.1	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER
Traffic Vol, veh/h	0	2	2	161	0	55	90	259	132	77
Future Vol, veh/h	0	2	2	161	0	55	90	259	132	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	75	0	0	0
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	5	-	-	-10	-	-1	-	9	-
Peak Hour Factor	92	50	50	88	92	96	89	71	93	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	0	4	4	183	0	57	101	365	142	93

Major/Minor	Minor2			Minor1			Major2		Major1	
Conflicting Flow All	748	719	367	723	721	142	142	0	369	0
Stage 1	569	569	-	150	150	-	-	-	-	-
Stage 2	179	150	-	573	571	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	5.1	4.5	5.2	4.1	-	4.1	-
Critical Hdwy Stg 1	7.1	6.5	-	4.1	3.5	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	4.1	3.5	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	2.2	-
Pot Cap-1 Maneuver	269	292	649	514	531	948	1453	-	1201	-
Stage 1	436	435	-	932	844	-	-	-	-	-
Stage 2	787	745	-	699	698	-	-	-	-	-
Platoon blocked, %								-		-
Mov Cap-1 Maneuver	239	271	649	477	492	948	1453	-	1201	-
Mov Cap-2 Maneuver	239	271	-	477	492	-	-	-	-	-
Stage 1	434	405	-	928	841	-	-	-	-	-
Stage 2	736	742	-	640	649	-	-	-	-	-

Approach	EB	WB	SB	NE
HCM Control Delay, s	14.6	16.9	1.6	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NEL2	NEL	NER	EBLn1	WBLn1	SBL	SBR	SBR2
Capacity (veh/h)	1201	-	-	382	541	1453	-	-
HCM Lane V/C Ratio	0.003	-	-	0.021	0.444	0.07	-	-
HCM Control Delay (s)	8	0	-	14.6	16.9	7.7	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.3	0.2	-	-

Intersection	
Int Delay, s/veh	10.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	31	14	122	28	10	54	30	389	7	59	455	77
Future Vol, veh/h	31	14	122	28	10	54	30	389	7	59	455	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	86	50	67	86	63	78	68	89	58	97	84	86
Heavy Vehicles, %	0	0	1	0	0	0	0	2	14	0	0	0
Mvmt Flow	36	28	182	33	16	69	44	437	12	61	542	90

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1023	1245	316	937	1284	225	631	0	0	449	0	0
Stage 1	708	708	-	531	531	-	-	-	-	-	-	-
Stage 2	315	537	-	406	753	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.22	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.31	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	162	143	665	247	192	794	961	-	-	1122	-	-
Stage 1	352	392	-	536	562	-	-	-	-	-	-	-
Stage 2	642	481	-	626	457	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	122	123	665	133	165	794	961	-	-	1122	-	-
Mov Cap-2 Maneuver	122	123	-	133	165	-	-	-	-	-	-	-
Stage 1	331	359	-	503	528	-	-	-	-	-	-	-
Stage 2	534	452	-	384	418	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	50.1	27.5	1	1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	961	-	-	309	275	1122	-	-
HCM Lane V/C Ratio	0.046	-	-	0.797	0.428	0.054	-	-
HCM Control Delay (s)	8.9	0.2	-	50.1	27.5	8.4	0.3	-
HCM Lane LOS	A	A	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	6.5	2	0.2	-	-

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	38	54	19	0	63	79	17	0	34	234	39
Future Vol, veh/h	0	38	54	19	0	63	79	17	0	34	234	39
Peak Hour Factor	0.92	0.59	0.83	0.79	0.92	0.67	0.72	0.47	0.92	0.85	0.84	0.81
Heavy Vehicles, %	2	3	0	0	2	0	0	0	2	0	5	0
Mvmt Flow	0	64	65	24	0	94	110	36	0	40	279	48
Number of Lanes	0	1	1	0	0	1	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	2
HCM Control Delay	13.4	14.5	14.8
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	67%	0%	74%	0%	82%	0%	100%	71%
Vol Right, %	0%	0%	33%	0%	26%	0%	18%	0%	0%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	156	117	38	73	63	96	34	309	218
LT Vol	34	0	0	38	0	63	0	34	0	0
Through Vol	0	156	78	0	54	0	79	0	309	155
RT Vol	0	0	39	0	19	0	17	0	0	63
Lane Flow Rate	40	186	141	64	89	94	146	36	352	249
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.093	0.411	0.299	0.162	0.206	0.228	0.328	0.079	0.715	0.492
Departure Headway (Hd)	8.395	7.969	7.643	9.067	8.324	8.718	8.087	7.832	7.321	7.114
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	426	451	468	395	430	411	444	456	492	505
Service Time	6.167	5.741	5.415	6.847	6.104	6.49	5.86	5.594	5.083	4.876
HCM Lane V/C Ratio	0.094	0.412	0.301	0.162	0.207	0.229	0.329	0.079	0.715	0.493
HCM Control Delay	12	16.2	13.7	13.6	13.3	14.1	14.8	11.3	26.5	16.6
HCM Lane LOS	B	C	B	B	B	B	B	B	D	C
HCM 95th-tile Q	0.3	2	1.2	0.6	0.8	0.9	1.4	0.3	5.7	2.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	34	464	63
Future Vol, veh/h	0	34	464	63
Peak Hour Factor	0.92	0.94	0.88	0.86
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	36	527	73
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	21.8
HCM LOS	C

Lane

YEAR 2018 NO-BUILD CONDITIONS
CAPACITY ANALYSIS RESULTS

US-41/Front St-2018 No Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 No Build\2018 No Build (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2018 No Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2018 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 41

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	144	0	84	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	146	0	356	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	770	450	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	144	84	770	0	1385	1436	0.1070	0.0592	3.79	0.59	2.61	0.13	0.00	0.35	0.00	A	A	A
2	EB US 41	Free	146	356	144	0	1738	1444	0.0856	0.2497	2.96	2.23	2.45	0.10	0.00	0.26	0.00	A	A	A
3	NB US 41/Front ...	None	1220		146		2033		0.6172		10.26		10.26	2.86		6.99		B		B
All	Intersection												7.35							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

US-41/Front St-2018 No Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 No Build\2018 No Build (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2018 No Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2018 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 50

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	479	0	229	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	193	0	1163	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	608	339	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	479	229	608	0	1495	1436	0.3294	0.1614	5.87	1.60	4.49	0.55	0.00	1.44	0.00	A	A	A
2	EB US 41	Free	193	1163	479	0	1123	1350	0.1766	0.8723	5.36	5.31	5.31	0.23	0.00	0.62	0.00	A	A	A
3	NB US 41/Front ...	None	947		193		1999		0.4858		8.17		8.17	1.62		4.09		A		A
All	Intersection												6.02							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

HCM 2010 Signalized Intersection Summary
1: McCLELLAN AVE & GROVE ST

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	81	35	30	24	23	27	424	76	5	148	12
Future Volume (veh/h)	48	81	35	30	24	23	27	424	76	5	148	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1862	1862	1862	1928	1928	1928	1843	1741	1843	1938	1903	1938
Adj Flow Rate, veh/h	62	111	61	42	32	36	40	544	104	12	195	16
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.78	0.73	0.57	0.72	0.75	0.64	0.68	0.78	0.73	0.42	0.76	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	7	7	0	2	2
Cap, veh/h	529	403	221	448	296	333	639	1404	267	403	1714	139
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1327	1131	621	1251	830	934	1154	2773	528	811	3386	276
Grp Volume(v), veh/h	62	0	172	42	0	68	40	324	324	12	103	108
Grp Sat Flow(s),veh/h/ln	1327	0	1752	1251	0	1764	1154	1654	1647	811	1808	1854
Q Serve(g_s), s	2.6	0.0	5.6	2.0	0.0	2.1	1.5	9.6	9.7	0.7	2.4	2.4
Cycle Q Clear(g_c), s	4.7	0.0	5.6	7.6	0.0	2.1	3.9	9.6	9.7	10.4	2.4	2.4
Prop In Lane	1.00		0.35	1.00		0.53	1.00		0.32	1.00		0.15
Lane Grp Cap(c), veh/h	529	0	624	448	0	628	639	837	834	403	915	939
V/C Ratio(X)	0.12	0.00	0.28	0.09	0.00	0.11	0.06	0.39	0.39	0.03	0.11	0.11
Avail Cap(c_a), veh/h	529	0	624	448	0	628	639	837	834	403	915	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	18.4	21.1	0.0	17.2	11.4	12.1	12.1	15.3	10.3	10.4
Incr Delay (d2), s/veh	0.5	0.0	1.1	0.4	0.0	0.3	0.2	1.3	1.4	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.9	0.7	0.0	1.1	0.5	4.6	4.6	0.2	1.2	1.3
LnGrp Delay(d),s/veh	19.3	0.0	19.5	21.5	0.0	17.6	11.6	13.5	13.5	15.5	10.6	10.6
LnGrp LOS	B		B	C		B	B	B	B	B	B	B
Approach Vol, veh/h		234			110			688			223	
Approach Delay, s/veh		19.4			19.1			13.4			10.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		46.0		34.0		46.0		34.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		40.5		28.5		40.5		28.5
Max Q Clear Time (g_c+I1), s		11.7		7.6		12.4		9.6
Green Ext Time (p_c), s		5.9		1.6		5.9		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	363	34	57	238	39	52	399	113	58	172	58
Future Volume (veh/h)	89	363	34	57	238	39	52	399	113	58	172	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1820	1938
Adj Flow Rate, veh/h	97	395	37	62	259	42	57	434	123	63	187	63
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	8	8
Cap, veh/h	538	1494	139	466	1395	223	462	1013	284	320	951	311
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1074	3273	305	952	3057	489	1125	2730	767	866	2564	838
Grp Volume(v), veh/h	97	213	219	62	149	152	57	280	277	63	124	126
Grp Sat Flow(s),veh/h/ln	1074	1770	1809	952	1770	1776	1125	1770	1727	866	1729	1672
Q Serve(g_s), s	4.1	5.2	5.3	3.0	3.5	3.6	2.5	8.3	8.4	4.1	3.4	3.6
Cycle Q Clear(g_c), s	7.7	5.2	5.3	8.3	3.5	3.6	6.1	8.3	8.4	12.5	3.4	3.6
Prop In Lane	1.00		0.17	1.00		0.28	1.00		0.44	1.00		0.50
Lane Grp Cap(c), veh/h	538	808	826	466	808	811	462	656	641	320	641	620
V/C Ratio(X)	0.18	0.26	0.27	0.13	0.18	0.19	0.12	0.43	0.43	0.20	0.19	0.20
Avail Cap(c_a), veh/h	538	808	826	466	808	811	462	656	641	320	641	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	11.8	11.8	14.3	11.3	11.3	17.1	16.5	16.5	21.2	14.9	15.0
Incr Delay (d2), s/veh	0.7	0.8	0.8	0.6	0.5	0.5	0.5	2.0	2.1	1.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.7	2.8	0.9	1.8	1.9	0.9	4.4	4.4	1.1	1.7	1.8
LnGrp Delay(d),s/veh	14.4	12.6	12.6	14.9	11.8	11.8	17.6	18.5	18.6	22.6	15.6	15.7
LnGrp LOS	B	B	B	B	B	B	B	B	B	C	B	B
Approach Vol, veh/h		529			363			614			313	
Approach Delay, s/veh		12.9			12.4			18.5			17.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.0		38.1		32.0		38.1
Change Period (Y+Rc), s		* 6		* 6.1		* 6		* 6.1
Max Green Setting (Gmax), s		* 26		* 32		* 26		* 32
Max Q Clear Time (g_c+I1), s		10.4		9.7		14.5		10.3
Green Ext Time (p_c), s		4.9		5.1		4.2		5.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	19	189	35	98	72	156	190	370	55	35	543	275
Future Volume (veh/h)	19	189	35	98	72	156	190	370	55	35	543	275
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1852	1852	1852	1728	1814	1814	1966	1800	1890	1996	1845	1919
Adj Flow Rate, veh/h	28	228	39	124	82	181	284	500	70	41	687	377
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.83	0.89	0.79	0.88	0.86	0.67	0.74	0.79	0.85	0.79	0.73
Percent Heavy Veh, %	0	0	0	5	0	0	0	5	0	0	4	0
Cap, veh/h	111	210	36	109	69	152	206	1908	896	71	1700	791
Arrive On Green	0.16	0.14	0.14	0.16	0.14	0.14	0.11	0.56	0.56	0.04	0.49	0.49
Sat Flow, veh/h	1106	1542	264	1028	504	1114	1872	3421	1607	1901	3506	1631
Grp Volume(v), veh/h	28	0	267	124	0	263	284	500	70	41	687	377
Grp Sat Flow(s),veh/h/ln	1106	0	1806	1028	0	1618	1872	1710	1607	1901	1753	1631
Q Serve(g_s), s	1.5	0.0	10.9	1.5	0.0	10.9	8.8	6.1	1.6	1.7	10.0	12.4
Cycle Q Clear(g_c), s	12.4	0.0	10.9	12.4	0.0	10.9	8.8	6.1	1.6	1.7	10.0	12.4
Prop In Lane	1.00		0.15	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	246	109	0	220	206	1908	896	71	1700	791
V/C Ratio(X)	0.25	0.00	1.09	1.13	0.00	1.19	1.38	0.26	0.08	0.58	0.40	0.48
Avail Cap(c_a), veh/h	111	0	246	109	0	220	206	1908	896	209	1700	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	0.0	34.6	39.9	0.0	34.6	35.6	9.2	8.2	37.9	13.2	13.8
Incr Delay (d2), s/veh	1.2	0.0	81.9	126.9	0.0	122.6	197.9	0.3	0.2	7.2	0.7	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	11.0	6.3	0.0	12.3	15.8	2.9	0.7	1.0	4.9	6.0
LnGrp Delay(d),s/veh	40.6	0.0	116.5	166.8	0.0	157.2	233.5	9.5	8.4	45.1	13.9	15.9
LnGrp LOS	D		F	F		F	F	A	A	D	B	B
Approach Vol, veh/h		295			387			854			1105	
Approach Delay, s/veh		109.3			160.2			83.9			15.7	
Approach LOS		F			F			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	45.0		20.0	9.2	50.8		20.0
Change Period (Y+Rc), s	* 6.2	* 6.2		* 9.1	* 6.2	* 6.2		* 9.1
Max Green Setting (Gmax), s	* 8.8	* 39		* 11	* 8.8	* 39		* 11
Max Q Clear Time (g_c+I1), s	10.8	14.4		14.4	3.7	8.1		14.4
Green Ext Time (p_c), s	0.0	6.7		0.0	0.0	7.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	69.4
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	254	42	14	219	20	83	272	21	11	181	45
Future Volume (veh/h)	55	254	42	14	219	20	83	272	21	11	181	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1835	1835	1946	1863	1863	1976	1900	1900	2016	1735	1807	1917
Adj Flow Rate, veh/h	66	343	67	16	296	28	163	425	36	16	270	57
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.74	0.63	0.88	0.74	0.71	0.51	0.64	0.58	0.69	0.67	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	520	102	282	585	55	482	782	66	369	655	138
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1033	1491	291	970	1675	158	1070	1728	146	863	1447	306
Grp Volume(v), veh/h	66	0	410	16	0	324	163	0	461	16	0	327
Grp Sat Flow(s),veh/h/ln	1033	0	1782	970	0	1834	1070	0	1874	863	0	1753
Q Serve(g_s), s	2.9	0.0	10.6	0.8	0.0	7.6	6.6	0.0	9.7	0.7	0.0	6.8
Cycle Q Clear(g_c), s	10.5	0.0	10.6	11.4	0.0	7.6	13.4	0.0	9.7	10.5	0.0	6.8
Prop In Lane	1.00		0.16	1.00		0.09	1.00		0.08	1.00		0.17
Lane Grp Cap(c), veh/h	349	0	622	282	0	640	482	0	848	369	0	793
V/C Ratio(X)	0.19	0.00	0.66	0.06	0.00	0.51	0.34	0.00	0.54	0.04	0.00	0.41
Avail Cap(c_a), veh/h	646	0	1134	561	0	1167	482	0	848	369	0	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	15.0	19.8	0.0	14.0	14.5	0.0	10.8	14.6	0.0	10.0
Incr Delay (d2), s/veh	0.3	0.0	1.2	0.1	0.0	0.6	1.9	0.0	2.5	0.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	5.3	0.2	0.0	3.9	2.2	0.0	5.6	0.2	0.0	3.6
LnGrp Delay(d),s/veh	18.4	0.0	16.2	19.8	0.0	14.6	16.4	0.0	13.3	14.8	0.0	11.6
LnGrp LOS	B		B	B		B	B		B	B		B
Approach Vol, veh/h		476			340			624			343	
Approach Delay, s/veh		16.5			14.9			14.1			11.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		24.4		30.0		24.4
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		15.4		12.6		12.5		13.4
Green Ext Time (p_c), s		3.9		5.0		4.7		4.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	568	343	0	388	0	0	145	141
Future Volume (vph)	0	0	0	0	568	343	0	388	0	0	145	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3430	1586		1710			1889	1611
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3430	1586		1710			1889	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.86	0.76	0.92	0.77	0.82	0.92	0.78	0.66
Adj. Flow (vph)	0	0	0	0	660	451	0	504	0	0	186	214
RTOR Reduction (vph)	0	0	0	0	0	147	0	0	0	0	0	89
Lane Group Flow (vph)	0	0	0	0	660	304	0	504	0	0	186	125
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	4%	0%	0%	2%	8%	0%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1504	695		786			774	660
v/s Ratio Prot					c0.19			c0.29			0.10	
v/s Ratio Perm						0.19						0.08
v/c Ratio					0.44	0.44		0.64			0.24	0.19
Uniform Delay, d1					15.6	15.6		16.5			15.4	15.1
Progression Factor					1.00	1.00		0.05			1.00	1.00
Incremental Delay, d2					0.9	2.0		2.9			0.7	0.6
Delay (s)					16.5	17.6		3.7			16.2	15.7
Level of Service					B	B		A			B	B
Approach Delay (s)		0.0			17.0			3.7			15.9	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	661	104	0	0	0	0	388	145	0	145	0
Future Volume (vph)	0	661	104	0	0	0	0	388	145	0	145	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3504	2005					1788	1436		2442	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3504	2005					1788	1436		2442	
Peak-hour factor, PHF	0.92	0.64	0.87	0.92	0.92	0.92	0.92	0.79	0.77	0.92	0.78	0.66
Adj. Flow (vph)	0	1033	120	0	0	0	0	491	188	0	186	0
RTOR Reduction (vph)	0	0	67	0	0	0	0	0	28	0	0	0
Lane Group Flow (vph)	0	1033	53	0	0	0	0	491	160	0	186	0
Heavy Vehicles (%)	0%	2%	1%	2%	2%	2%	0%	2%	8%	0%	2%	2%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1537	879					704	565		1083	
v/s Ratio Prot		c0.29						c0.27			0.08	
v/s Ratio Perm			0.03						0.11			
v/c Ratio		0.67	0.06					0.70	0.28		0.17	
Uniform Delay, d1		17.9	12.9					20.3	16.5		13.4	
Progression Factor		1.00	1.00					0.64	0.49		0.00	
Incremental Delay, d2		2.4	0.1					5.4	1.2		0.3	
Delay (s)		20.2	13.1					18.5	9.4		0.3	
Level of Service		C	B					B	A		A	
Approach Delay (s)		19.5			0.0			16.0			0.3	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	256	379	77	7	7
Future Vol, veh/h	0	256	379	77	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	1	-	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	278	412	84	8	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	496	0	-	0	732	454
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	278	-
Critical Hdwy	4.12	-	-	-	6.82	6.42
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1068	-	-	-	358	591
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	746	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1068	-	-	-	358	591
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	746	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1068	-	-	-	358	591
HCM Lane V/C Ratio	-	-	-	-	0.021	0.013
HCM Control Delay (s)	0	-	-	-	15.3	11.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	115	190	79	307	67	7
Future Vol, veh/h	115	190	79	307	67	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	2	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	125	207	86	334	73	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	420	0	-	0	710	253
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	4.12	-	-	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1139	-	-	-	355	769
Stage 1	-	-	-	-	757	-
Stage 2	-	-	-	-	591	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1139	-	-	-	311	769
Mov Cap-2 Maneuver	-	-	-	-	311	-
Stage 1	-	-	-	-	757	-
Stage 2	-	-	-	-	518	-

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	19.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1139	-	-	-	330
HCM Lane V/C Ratio	0.11	-	-	-	0.244
HCM Control Delay (s)	8.6	0	-	-	19.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.9

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	77	185	86	0	120	107
Future Vol, veh/h	77	185	86	0	120	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	201	93	0	130	116

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	93	0	-	0	461	93
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	368	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1501	-	-	-	588	969
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	729	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1501	-	-	-	551	969
Mov Cap-2 Maneuver	-	-	-	-	551	-
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	683	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1501	-	-	-	551	969
HCM Lane V/C Ratio	0.056	-	-	-	0.237	0.12
HCM Control Delay (s)	7.5	0	-	-	13.5	9.2
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	0.4

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	718	0	192	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	718	0	192	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	780	0	209	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	390	780	0	780	780	389
Stage 1	-	-	-	0	0	-	780	780	-
Stage 2	-	-	-	390	780	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	586	325	-	332	325	610
Stage 1	-	-	-	-	-	-	412	404	-
Stage 2	-	-	-	653	404	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	586	0	-	332	0	610
Mov Cap-2 Maneuver	-	-	-	586	0	-	332	0	-
Stage 1	-	-	-	-	0	-	412	0	-
Stage 2	-	-	-	653	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	14.5	0
HCM LOS		B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	586	-	-	-	-	-
HCM Lane V/C Ratio	0.356	-	-	-	-	-
HCM Control Delay (s)	14.5	0	0	-	-	0
HCM Lane LOS	B	A	A	-	-	A
HCM 95th %tile Q(veh)	1.6	-	-	-	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Traffic Vol, veh/h	3	209	13	63	75	25	22	10	0	6	8	13
Future Vol, veh/h	3	209	13	63	75	25	22	10	0	6	8	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	10	-	-	-5	-	-	-3	-	-	8	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	227	14	68	82	27	24	11	0	7	9	14

Major/Minor	Major1			Major2			Minor2			Minor1		
Conflicting Flow All	109	0	0	241	0	0	484	480	95	479	487	234
Stage 1	-	-	-	-	-	-	232	232	-	241	241	-
Stage 2	-	-	-	-	-	-	252	248	-	238	246	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.52	5.92	5.92	8.72	8.12	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	5.52	4.92	-	7.72	7.12	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.52	4.92	-	7.72	7.12	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1481	-	-	1326	-	-	535	526	969	402	387	764
Stage 1	-	-	-	-	-	-	801	741	-	685	634	-
Stage 2	-	-	-	-	-	-	784	731	-	688	630	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1481	-	-	1326	-	-	493	496	969	378	365	764
Mov Cap-2 Maneuver	-	-	-	-	-	-	493	496	-	378	365	-
Stage 1	-	-	-	-	-	-	799	700	-	684	633	-
Stage 2	-	-	-	-	-	-	757	730	-	640	595	-

Approach	NB	SB	SE	NW
HCM Control Delay, s	0.1	3	12.8	12.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBL	NBT	NBR	NWLn1	SELn1	SBL	SBT	SBR
Capacity (veh/h)	1481	-	-	493	494	1326	-	-
HCM Lane V/C Ratio	0.002	-	-	0.06	0.07	0.052	-	-
HCM Control Delay (s)	7.4	0	-	12.8	12.8	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0.2	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	647	0	0	0	0	0	0	0	118	0	0
Future Vol, veh/h	0	647	0	0	0	0	0	0	0	118	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	703	0	0	0	0	0	0	0	128	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	703	703	351	352	703	0
Stage 1	-	-	-	703	703	-	0	0	-
Stage 2	-	-	-	0	0	-	352	703	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	372	360	645	619	360	-
Stage 1	-	-	-	452	438	-	-	-	-
Stage 2	-	-	-	-	-	-	683	438	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	372	0	645	619	0	-
Mov Cap-2 Maneuver	-	-	-	372	0	-	619	0	-
Stage 1	-	-	-	452	0	-	-	0	-
Stage 2	-	-	-	-	0	-	683	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	12.3
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	619	-
HCM Lane V/C Ratio	-	-	-	-	0.207	-
HCM Control Delay (s)	0	0	-	-	12.3	0
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	-	0.8	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	7	0	2	12	39	23	4	344	31	8	152	78
Future Vol, veh/h	7	0	2	12	39	23	4	344	31	8	152	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	60	92	48	50	72	35	67	73	25
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	8	0	8	20	42	48	8	478	89	12	208	312

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	971	970	364	930	1082	522	520	0	0	566	0	0
Stage 1	388	388	-	538	538	-	-	-	-	-	-	-
Stage 2	583	582	-	392	544	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	179	195	652	263	233	567	1056	-	-	1016	-	-
Stage 1	574	550	-	547	542	-	-	-	-	-	-	-
Stage 2	427	427	-	651	538	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	137	190	652	254	227	567	1056	-	-	1016	-	-
Mov Cap-2 Maneuver	137	190	-	254	227	-	-	-	-	-	-	-
Stage 1	568	541	-	541	536	-	-	-	-	-	-	-
Stage 2	356	422	-	632	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.8	22.5	0.1	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1056	-	-	230	315	1016	-	-
HCM Lane V/C Ratio	0.008	-	-	0.068	0.35	0.012	-	-
HCM Control Delay (s)	8.4	0	-	21.8	22.5	8.6	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	1.5	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	33	74	156	4	138	5	294	321	6	6	134	24
Future Vol, veh/h	33	74	156	4	138	5	294	321	6	6	134	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	65	60	69	50	72	31	69	70	85	85	73	75
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	51	123	226	8	192	16	426	459	7	7	184	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1632	1532	200	1702	1544	462	216	0	0	466	0	0
Stage 1	214	214	-	1314	1314	-	-	-	-	-	-	-
Stage 2	1418	1318	-	388	230	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	98	140	856	81	~ 126	612	1366	-	-	1106	-	-
Stage 1	812	747	-	211	247	-	-	-	-	-	-	-
Stage 2	201	265	-	654	727	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 80	856	-	~ 72	612	1366	-	-	1106	-	-
Mov Cap-2 Maneuver	-	~ 80	-	-	~ 72	-	-	-	-	-	-	-
Stage 1	470	742	-	122	~ 143	-	-	-	-	-	-	-
Stage 2	-	153	-	398	722	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			4.2	0.3
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1366	-	-	-	-	1106	-	-
HCM Lane V/C Ratio	0.312	-	-	-	-	0.006	-	-
HCM Control Delay (s)	8.8	0	-	-	-	8.3	0	-
HCM Lane LOS	A	A	-	-	-	A	A	-
HCM 95th %tile Q(veh)	1.3	-	-	-	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	123.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	1	1	105	2	94	1	521	132	75	220	0
Future Vol, veh/h	1	1	1	105	2	94	1	521	132	75	220	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	10	-	-	-9	-	-	1	-
Peak Hour Factor	25	25	25	81	50	64	25	81	65	76	88	92
Heavy Vehicles, %	0	0	0	0	0	3	0	0	0	8	1	2
Mvmt Flow	4	4	4	130	4	147	4	643	203	99	250	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1275	1301	250	1204	1200	745	250	0	0	846	0	0
Stage 1	447	447	-	753	753	-	-	-	-	-	-	-
Stage 2	828	854	-	451	447	-	-	-	-	-	-	-
Critical Hdwy	6.1	5.5	5.7	9.1	8.5	7.23	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.327	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	207	233	822	~ 83	96	335	1327	-	-	766	-	-
Stage 1	673	653	-	267	277	-	-	-	-	-	-	-
Stage 2	463	479	-	461	450	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	101	202	822	~ 73	83	335	1327	-	-	766	-	-
Mov Cap-2 Maneuver	101	202	-	~ 73	83	-	-	-	-	-	-	-
Stage 1	669	569	-	265	275	-	-	-	-	-	-	-
Stage 2	255	476	-	397	392	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.6	$ 650	0	2.9
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1327	-	-	187	124	766	-	-
HCM Lane V/C Ratio	0.003	-	-	0.064	2.262	0.129	-	-
HCM Control Delay (s)	7.7	0	-	25.6	$ 650	10.4	-	-
HCM Lane LOS	A	A	-	D	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	24	0.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	48.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	12	5	8	115	4	45	24	511	190	79	164	16
Future Vol, veh/h	12	5	8	115	4	45	24	511	190	79	164	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	50	42	40	60	50	64	55	88	66	59	89	57
Heavy Vehicles, %	0	0	0	0	0	0	0	1	5	0	3	0
Mvmt Flow	24	12	20	192	8	70	44	581	288	134	184	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	848	1422	106	1178	1292	434	212	0	0	869	0	0
Stage 1	466	466	-	812	812	-	-	-	-	-	-	-
Stage 2	382	956	-	366	480	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.2	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	224	108	926	~ 169	190	590	1370	-	-	784	-	-
Stage 1	510	523	-	376	432	-	-	-	-	-	-	-
Stage 2	580	289	-	657	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	153	81	926	~ 119	143	590	1370	-	-	784	-	-
Mov Cap-2 Maneuver	153	81	-	~ 119	143	-	-	-	-	-	-	-
Stage 1	476	422	-	351	403	-	-	-	-	-	-	-
Stage 2	468	270	-	503	474	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30	270.2	0.5	4.3
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1370	-	-	153	189	119	447	784	-	-
HCM Lane V/C Ratio	0.032	-	-	0.157	0.169	1.611	0.175	0.171	-	-
HCM Control Delay (s)	7.7	0.2	-	32.9	27.9	$ 374.6	14.8	10.5	0.4	-
HCM Lane LOS	A	A	-	D	D	F	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.6	14.2	0.6	0.6	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	343	39	39	308	7	7
Future Vol, veh/h	343	39	39	308	7	7
Conflicting Peds, #/hr	0	5	5	0	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	286	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	373	42	42	335	8	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	418	0	817	402
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	420	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1141	-	346	648
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1137	-	331	644
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	636	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	530	-	-	1137	-
HCM Lane V/C Ratio	0.029	-	-	0.037	-
HCM Control Delay (s)	12	-	-	8.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1056	269	0	344	0	0	507	693
Future Volume (vph)	0	0	0	0	1056	269	0	344	0	0	507	693
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3497	1555		1710			1927	1644
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3497	1555		1710			1927	1644
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.91	0.74	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	0	0	0	1160	364	0	430	0	0	551	815
RTOR Reduction (vph)	0	0	0	0	0	182	0	0	0	0	0	27
Lane Group Flow (vph)	0	0	0	0	1160	182	0	430	0	0	551	788
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1534	682		786			790	674
v/s Ratio Prot					c0.33			0.25			0.29	
v/s Ratio Perm						0.12						c0.48
v/c Ratio					0.76	0.27		0.55			0.70	1.17
Uniform Delay, d1					18.9	14.3		15.6			19.5	23.6
Progression Factor					1.00	1.00		0.02			1.00	1.00
Incremental Delay, d2					3.5	1.0		2.2			5.1	91.4
Delay (s)					22.4	15.2		2.5			24.6	115.0
Level of Service					C	B		A			C	F
Approach Delay (s)		0.0			20.7			2.5			78.5	
Approach LOS		A			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	42.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1123	376	0	0	0	0	344	224	0	507	0
Future Volume (vph)	0	1123	376	0	0	0	0	344	224	0	507	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2025					1788	1505		2491	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2025					1788	1505		2491	
Peak-hour factor, PHF	0.92	0.95	0.91	0.92	0.92	0.92	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	1182	413	0	0	0	0	430	257	0	551	0
RTOR Reduction (vph)	0	0	121	0	0	0	0	0	28	0	0	0
Lane Group Flow (vph)	0	1182	292	0	0	0	0	430	229	0	551	0
Heavy Vehicles (%)	0%	1%	0%	2%	2%	2%	0%	2%	3%	0%	0%	0%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1552	888					704	592		1105	
v/s Ratio Prot		c0.33						c0.24			0.22	
v/s Ratio Perm			0.14						0.15			
v/c Ratio		0.76	0.33					0.61	0.39		0.50	
Uniform Delay, d1		18.9	14.7					19.4	17.3		15.9	
Progression Factor		1.00	1.00					0.86	0.80		0.00	
Incremental Delay, d2		3.6	1.0					3.9	1.9		1.1	
Delay (s)		22.5	15.7					20.6	15.7		1.1	
Level of Service		C	B					C	B		A	
Approach Delay (s)		20.8			0.0			18.8			1.1	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
1: McCLELLAN AVE & GROVE ST

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	55	19	98	80	17	35	276	55	35	556	64
Future Volume (veh/h)	39	55	19	98	80	17	35	276	55	35	556	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1808	1862	1862	1928	1928	1928	1843	1770	1843	1938	1938	1938
Adj Flow Rate, veh/h	66	66	24	146	111	36	41	329	68	37	632	74
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.59	0.83	0.79	0.67	0.72	0.47	0.85	0.84	0.81	0.94	0.88	0.86
Percent Heavy Veh, %	3	0	0	0	0	0	0	5	5	0	0	0
Cap, veh/h	467	481	175	541	515	167	364	1374	281	525	1640	192
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1199	1304	474	1347	1396	453	731	2782	568	1023	3322	388
Grp Volume(v), veh/h	66	0	90	146	0	147	41	197	200	37	350	356
Grp Sat Flow(s),veh/h/ln	1199	0	1778	1347	0	1849	731	1681	1669	1023	1841	1869
Q Serve(g_s), s	3.2	0.0	2.7	6.5	0.0	4.4	3.0	5.4	5.5	1.7	9.5	9.5
Cycle Q Clear(g_c), s	7.6	0.0	2.7	9.2	0.0	4.4	12.5	5.4	5.5	7.2	9.5	9.5
Prop In Lane	1.00		0.27	1.00		0.24	1.00		0.34	1.00		0.21
Lane Grp Cap(c), veh/h	467	0	656	541	0	682	364	830	824	525	909	923
V/C Ratio(X)	0.14	0.00	0.14	0.27	0.00	0.22	0.11	0.24	0.24	0.07	0.38	0.39
Avail Cap(c_a), veh/h	467	0	656	541	0	682	364	830	824	525	909	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	16.8	19.8	0.0	17.3	16.6	11.6	11.6	13.7	12.7	12.7
Incr Delay (d2), s/veh	0.6	0.0	0.4	1.2	0.0	0.7	0.6	0.7	0.7	0.3	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.4	2.6	0.0	2.3	0.7	2.6	2.7	0.5	5.1	5.2
LnGrp Delay(d),s/veh	20.5	0.0	17.2	21.1	0.0	18.0	17.2	12.3	12.3	14.0	13.9	13.9
LnGrp LOS	C		B	C		B	B	B	B	B	B	B
Approach Vol, veh/h		156			293			438			743	
Approach Delay, s/veh		18.6			19.5			12.8			13.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		39.5		29.5		39.5		29.5
Max Q Clear Time (g_c+I1), s		14.5		9.6		11.5		11.2
Green Ext Time (p_c), s		7.8		1.9		8.1		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	448	75	163	629	103	117	341	102	108	466	159
Future Volume (veh/h)	111	448	75	163	629	103	117	341	102	108	466	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1820	1938
Adj Flow Rate, veh/h	121	487	82	177	684	112	127	371	111	117	507	173
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	8	8
Cap, veh/h	301	1368	229	392	1373	225	269	1015	300	358	955	324
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	679	3034	508	839	3046	498	757	2696	796	928	2536	861
Grp Volume(v), veh/h	121	283	286	177	397	399	127	242	240	117	345	335
Grp Sat Flow(s),veh/h/ln	679	1770	1773	839	1770	1775	757	1770	1722	928	1729	1668
Q Serve(g_s), s	10.8	7.3	7.4	12.3	11.1	11.2	11.0	6.9	7.1	7.3	10.9	11.0
Cycle Q Clear(g_c), s	21.9	7.3	7.4	19.7	11.1	11.2	22.0	6.9	7.1	14.4	10.9	11.0
Prop In Lane	1.00		0.29	1.00		0.28	1.00		0.46	1.00		0.52
Lane Grp Cap(c), veh/h	301	798	799	392	798	800	269	666	649	358	651	628
V/C Ratio(X)	0.40	0.35	0.36	0.45	0.50	0.50	0.47	0.36	0.37	0.33	0.53	0.53
Avail Cap(c_a), veh/h	301	798	799	392	798	800	269	666	649	358	651	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	12.6	12.6	19.0	13.6	13.6	25.6	15.8	15.8	21.0	17.0	17.0
Incr Delay (d2), s/veh	4.0	1.2	1.2	3.7	2.2	2.2	5.8	1.5	1.6	2.4	3.1	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.8	3.9	3.3	5.9	5.9	2.7	3.6	3.6	2.1	5.7	5.6
LnGrp Delay(d),s/veh	25.4	13.8	13.9	22.8	15.8	15.9	31.5	17.3	17.4	23.5	20.1	20.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		690			973			609			797	
Approach Delay, s/veh		15.9			17.1			20.3			20.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.4		37.7		32.4		37.7
Change Period (Y+Rc), s		* 6		* 6.1		* 6		* 6.1
Max Green Setting (Gmax), s		* 26		* 32		* 26		* 32
Max Q Clear Time (g_c+I1), s		24.0		23.9		16.4		21.7
Green Ext Time (p_c), s		1.7		5.4		5.8		6.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	148	813	41	65	559	212	22	117	81	461	196	399
Future Volume (veh/h)	148	813	41	65	559	212	22	117	81	461	196	399
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1947	1853	1890	1996	1881	1793	1852	1852	1852	1814	1809	1814
Adj Flow Rate, veh/h	176	830	49	98	614	241	31	122	105	576	233	512
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.84	0.98	0.83	0.66	0.91	0.88	0.72	0.96	0.77	0.80	0.84	0.78
Percent Heavy Veh, %	1	2	0	0	2	7	0	0	0	0	1	1
Cap, veh/h	158	1418	647	128	1376	587	103	240	207	277	132	290
Arrive On Green	0.09	0.40	0.40	0.07	0.38	0.38	0.28	0.26	0.26	0.28	0.26	0.26
Sat Flow, veh/h	1854	3522	1607	1901	3575	1524	709	920	792	1119	505	1109
Grp Volume(v), veh/h	176	830	49	98	614	241	31	0	227	576	0	745
Grp Sat Flow(s),veh/h/ln	1854	1761	1607	1901	1787	1524	709	0	1713	1119	0	1613
Q Serve(g_s), s	6.8	14.7	1.5	4.1	10.2	9.2	1.5	0.0	9.0	13.4	0.0	20.9
Cycle Q Clear(g_c), s	6.8	14.7	1.5	4.1	10.2	9.2	22.4	0.0	9.0	22.4	0.0	20.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		0.69
Lane Grp Cap(c), veh/h	158	1418	647	128	1376	587	103	0	447	277	0	421
V/C Ratio(X)	1.12	0.59	0.08	0.77	0.45	0.41	0.30	0.00	0.51	2.08	0.00	1.77
Avail Cap(c_a), veh/h	158	1418	647	162	1376	587	103	0	447	277	0	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.6	18.7	14.7	36.7	18.3	18.0	39.7	0.0	25.2	35.5	0.0	29.6
Incr Delay (d2), s/veh	106.5	1.8	0.2	15.4	1.0	2.1	1.6	0.0	0.9	497.8	0.0	355.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	7.5	0.7	2.7	5.2	4.2	0.7	0.0	4.3	44.4	0.0	50.8
LnGrp Delay(d),s/veh	143.1	20.4	14.9	52.1	19.3	20.1	41.3	0.0	26.1	533.3	0.0	384.6
LnGrp LOS	F	C	B	D	B	C	D		C	F		F
Approach Vol, veh/h		1055			953			258			1321	
Approach Delay, s/veh		40.6			22.9			27.9			449.4	
Approach LOS		D			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	37.0		30.0	11.6	38.4		30.0
Change Period (Y+Rc), s	* 6.2	* 6.2		* 9.1	* 6.2	* 6.2		* 9.1
Max Green Setting (Gmax), s	* 6.8	* 31		* 21	* 6.8	* 31		* 21
Max Q Clear Time (g_c+I1), s	8.8	12.2		24.4	6.1	16.7		24.4
Green Ext Time (p_c), s	0.0	6.6		0.0	0.0	5.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	185.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	413	82	25	436	23	53	177	33	33	249	95
Future Volume (veh/h)	77	413	82	25	436	23	53	177	33	33	249	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1872	1946	1900	1900	1976	1938	1907	2016	1769	1843	1917
Adj Flow Rate, veh/h	87	444	99	28	513	32	73	224	51	40	311	102
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.89	0.93	0.83	0.88	0.85	0.72	0.73	0.79	0.65	0.83	0.80	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	302	660	147	295	789	49	312	579	132	403	512	168
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	861	1482	330	876	1770	110	1008	1504	342	1045	1330	436
Grp Volume(v), veh/h	87	0	543	28	0	545	73	0	275	40	0	413
Grp Sat Flow(s),veh/h/ln	861	0	1812	876	0	1880	1008	0	1847	1045	0	1766
Q Serve(g_s), s	5.6	0.0	15.1	1.7	0.0	14.5	4.0	0.0	6.9	1.8	0.0	12.0
Cycle Q Clear(g_c), s	20.1	0.0	15.1	16.8	0.0	14.5	16.0	0.0	6.9	8.7	0.0	12.0
Prop In Lane	1.00		0.18	1.00		0.06	1.00		0.19	1.00		0.25
Lane Grp Cap(c), veh/h	302	0	808	295	0	838	312	0	711	403	0	680
V/C Ratio(X)	0.29	0.00	0.67	0.09	0.00	0.65	0.23	0.00	0.39	0.10	0.00	0.61
Avail Cap(c_a), veh/h	384	0	982	379	0	1019	312	0	711	403	0	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	14.0	20.7	0.0	13.8	22.2	0.0	14.2	17.3	0.0	15.8
Incr Delay (d2), s/veh	0.5	0.0	1.4	0.1	0.0	1.1	1.8	0.0	1.6	0.5	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	7.8	0.4	0.0	7.7	1.3	0.0	3.8	0.6	0.0	6.5
LnGrp Delay(d),s/veh	22.2	0.0	15.4	20.8	0.0	14.9	23.9	0.0	15.8	17.8	0.0	19.8
LnGrp LOS	C		B	C		B	C		B	B		B
Approach Vol, veh/h		630			573			348			453	
Approach Delay, s/veh		16.3			15.2			17.5			19.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		33.9		30.0		33.9
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		18.0		22.1		14.0		18.8
Green Ext Time (p_c), s		2.7		6.1		3.7		7.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	1049	356	75	34	34
Future Vol, veh/h	0	1049	356	75	34	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	1	-	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1140	387	82	37	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	468	0	-	0	1568	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	1140	-
Critical Hdwy	4.12	-	-	-	6.82	6.42
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	103	612
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	269	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	103	612
Mov Cap-2 Maneuver	-	-	-	-	103	-
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	269	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	34.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1094	-	-	-	103	612
HCM Lane V/C Ratio	-	-	-	-	0.359	0.06
HCM Control Delay (s)	0	-	-	-	58.3	11.3
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0	-	-	-	1.4	0.2

Intersection	
Int Delay, s/veh	240.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	112	710	91	299	340	34
Future Vol, veh/h	112	710	91	299	340	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	2	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	772	99	325	370	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	424	0	-	0	1276	261
Stage 1	-	-	-	-	261	-
Stage 2	-	-	-	-	1015	-
Critical Hdwy	4.12	-	-	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1135	-	-	-	~ 149	761
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	~ 296	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1135	-	-	-	~ 121	761
Mov Cap-2 Maneuver	-	-	-	-	~ 121	-
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	~ 240	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	$ 1017.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1135	-	-	-	131
HCM Lane V/C Ratio	0.107	-	-	-	3.103
HCM Control Delay (s)	8.6	0	-	$	1017.9
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	38.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	75.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	75	210	125	0	612	544
Future Vol, veh/h	75	210	125	0	612	544
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	228	136	0	665	591

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	136	0	-	0	527	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	391	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1448	-	-	-	~ 542	920
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	714	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1448	-	-	-	~ 507	920
Mov Cap-2 Maneuver	-	-	-	-	~ 507	-
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	668	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	101.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1448	-	-	-	507	920
HCM Lane V/C Ratio	0.056	-	-	-	1.312	0.643
HCM Control Delay (s)	7.6	0	-	-	177.8	15.7
HCM Lane LOS	A	A	-	-	F	C
HCM 95th %tile Q(veh)	0.2	-	-	-	28.5	4.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	980	0	318	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	980	0	318	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1065	0	346	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	533	1065	0	1065	1065	532
Stage 1	-	-	-	0	0	-	1065	1065	-
Stage 2	-	-	-	533	1065	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	477	221	-	218	221	492
Stage 1	-	-	-	-	-	-	292	297	-
Stage 2	-	-	-	553	297	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	477	0	-	218	0	492
Mov Cap-2 Maneuver	-	-	-	477	0	-	218	0	-
Stage 1	-	-	-	-	0	-	292	0	-
Stage 2	-	-	-	553	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	30	0
HCM LOS		D	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	477	-	-	-	-	-
HCM Lane V/C Ratio	0.725	-	-	-	-	-
HCM Control Delay (s)	30	0	0	-	-	0
HCM Lane LOS	D	A	A	-	-	A
HCM 95th %tile Q(veh)	5.8	-	-	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Vol, veh/h	29	8	3	17	7	57	1	133	20	57	212	33
Future Vol, veh/h	29	8	3	17	7	57	1	133	20	57	212	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	8	-	-	10	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	9	3	18	8	62	1	145	22	62	230	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	564	540	248	536	548	155	266	0	0	166	0	0
Stage 1	372	372	-	158	158	-	-	-	-	-	-	-
Stage 2	192	168	-	378	390	-	-	-	-	-	-	-
Critical Hdwy	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	479	491	807	359	348	861	1298	-	-	1412	-	-
Stage 1	690	658	-	787	715	-	-	-	-	-	-	-
Stage 2	836	781	-	544	511	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	419	465	807	338	330	861	1298	-	-	1412	-	-
Mov Cap-2 Maneuver	419	465	-	338	330	-	-	-	-	-	-	-
Stage 1	689	624	-	786	714	-	-	-	-	-	-	-
Stage 2	767	780	-	506	484	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	14	12.2	0.1	1.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1298	-	-	588	444	1412	-	-
HCM Lane V/C Ratio	0.001	-	-	0.15	0.098	0.044	-	-
HCM Control Delay (s)	7.8	0	-	12.2	14	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1383	0	0	0	0	0	0	0	116	0	0
Future Vol, veh/h	0	1383	0	0	0	0	0	0	0	116	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1503	0	0	0	0	0	0	0	126	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	1503	1503	751	752	1503	0
Stage 1	-	-	-	1503	1503	-	0	0	-
Stage 2	-	-	-	0	0	-	752	1503	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	112	120	353	346	120	-
Stage 1	-	-	-	170	183	-	-	-	-
Stage 2	-	-	-	-	-	-	426	183	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	112	0	353	346	0	-
Mov Cap-2 Maneuver	-	-	-	112	0	-	346	0	-
Stage 1	-	-	-	170	0	-	-	0	-
Stage 2	-	-	-	-	0	-	426	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	21.3
HCM LOS		A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	346	-
HCM Lane V/C Ratio	-	-	-	-	0.364	-
HCM Control Delay (s)	0	0	-	-	21.3	0
HCM Lane LOS	A	A	-	-	C	A
HCM 95th %tile Q(veh)	-	-	-	-	1.6	-

Intersection	
Int Delay, s/veh	40.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	34	1	1	53	39	30	1	199	92	10	280	76
Future Vol, veh/h	34	1	1	53	39	30	1	199	92	10	280	76
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	41	25	75	25	79	44	50	79	25
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	37	1	4	129	156	40	4	252	209	20	354	304

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1008	1015	506	913	1062	356	658	0	0	461	0	0
Stage 1	546	546	-	364	364	-	-	-	-	-	-	-
Stage 2	462	469	-	549	698	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	167	181	532	270	239	699	939	-	-	1111	-	-
Stage 1	452	448	-	673	640	-	-	-	-	-	-	-
Stage 2	513	495	-	540	463	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	70	175	532	259	230	699	939	-	-	1111	-	-
Mov Cap-2 Maneuver	70	175	-	259	230	-	-	-	-	-	-	-
Stage 1	449	435	-	669	636	-	-	-	-	-	-	-
Stage 2	363	492	-	519	449	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	95.6	174.2	0.1	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	939	-	-	78	263	1111	-	-
HCM Lane V/C Ratio	0.004	-	-	0.539	1.237	0.018	-	-
HCM Control Delay (s)	8.8	0	-	95.6	174.2	8.3	0	-
HCM Lane LOS	A	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0	-	-	2.3	15.6	0.1	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	114	293	677	15	137	12	276	167	2	16	300	18
Future Vol, veh/h	114	293	677	15	137	12	276	167	2	16	300	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	60	62	69	63	69	60	58	83	50	37	71	56
Heavy Vehicles, %	8	0	0	0	0	0	7	1	0	0	0	0
Mvmt Flow	190	473	981	24	199	20	476	201	4	43	423	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1789	1682	439	2407	1696	203	455	0	0	205	0	0
Stage 1	525	525	-	1155	1155	-	-	-	-	-	-	-
Stage 2	1264	1157	-	1252	541	-	-	-	-	-	-	-
Critical Hdwy	6.78	6.1	6	6.9	6.3	6.1	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4	3.3	3.5	4	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 74	~ 115	~ 638	26	~ 103	848	1080	-	-	1378	-	-
Stage 1	557	565	-	258	292	-	-	-	-	-	-	-
Stage 2	232	~ 310	-	229	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 55	~ 638	-	~ 50	848	1080	-	-	1378	-	-
Mov Cap-2 Maneuver	-	~ 55	-	-	~ 50	-	-	-	-	-	-	-
Stage 1	280	541	-	130	~ 147	-	-	-	-	-	-	-
Stage 2	-	~ 156	-	-	517	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			7.6	0.7
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1080	-	-	-	-	1378	-	-
HCM Lane V/C Ratio	0.441	-	-	-	-	0.031	-	-
HCM Control Delay (s)	10.9	0	-	-	-	7.7	0	-
HCM Lane LOS	B	A	-	-	-	A	A	-
HCM 95th %tile Q(veh)	2.3	-	-	-	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	701.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER
Traffic Vol, veh/h	0	2	2	171	0	56	91	883	391	83
Future Vol, veh/h	0	2	2	171	0	56	91	883	391	83
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	75	0	0	-
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	-5	-	-	10	-	1	-	-9	-
Peak Hour Factor	92	50	50	88	92	96	89	71	93	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	0	4	4	194	0	58	102	1244	420	100

Major/Minor	Minor2			Minor1			Major2		Major1	
Conflicting Flow All	1958	1978	1246	1932	1930	470	520	0	1248	0
Stage 1	1450	1450	-	478	478	-	-	-	-	-
Stage 2	508	528	-	1454	1452	-	-	-	-	-
Critical Hdwy	6.1	5.5	5.7	9.1	8.5	7.2	4.1	-	4.1	-
Critical Hdwy Stg 1	5.1	4.5	-	8.1	7.5	-	-	-	-	-
Critical Hdwy Stg 2	5.1	4.5	-	8.1	7.5	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	2.2	-
Pot Cap-1 Maneuver	83	108	254	~ 17	23	525	1056	-	565	-
Stage 1	246	296	-	439	429	-	-	-	-	-
Stage 2	635	615	-	~ 73	88	-	-	-	-	-
Platoon blocked, %								-		-
Mov Cap-1 Maneuver	68	97	254	~ 15	21	525	1056	-	565	-
Mov Cap-2 Maneuver	68	97	-	~ 15	21	-	-	-	-	-
Stage 1	244	267	-	435	425	-	-	-	-	-
Stage 2	559	609	-	~ 64	80	-	-	-	-	-

Approach	EB	WB	SB	NE
HCM Control Delay, s	32.3	$ 5926.1	0.7	0.1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NEL2	NEL	NER	EBLn1	WBLn1	SBL	SBR	SBR2
Capacity (veh/h)	565	-	-	140	19	1056	-	-
HCM Lane V/C Ratio	0.007	-	-	0.057	13.297	0.097	-	-
HCM Control Delay (s)	11.4	0	-	32.3	$ 5926.1	8.8	-	-
HCM Lane LOS	B	A	-	D	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	32.2	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	502.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	31	14	108	551	10	140	30	395	172	83	541	78
Future Vol, veh/h	31	14	108	551	10	140	30	395	172	83	541	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	15	117	599	11	152	33	429	187	90	588	85

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1096	1493	336	1070	1441	308	673	0	0	616	0	0
Stage 1	811	811	-	588	588	-	-	-	-	-	-	-
Stage 2	285	682	-	482	853	-	-	-	-	-	-	-
Critical Hdwy	8.14	7.14	7.24	7.14	6.14	6.74	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	7.14	6.14	-	6.14	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.14	6.14	-	6.14	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	140	95	642	~ 198	154	700	914	-	-	960	-	-
Stage 1	297	341	-	~ 493	528	-	-	-	-	-	-	-
Stage 2	666	400	-	~ 564	411	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	87	76	642	~ 116	123	700	914	-	-	960	-	-
Mov Cap-2 Maneuver	87	76	-	~ 116	123	-	-	-	-	-	-	-
Stage 1	280	289	-	~ 465	498	-	-	-	-	-	-	-
Stage 2	481	377	-	~ 370	349	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.6	$ 1533.6	0.6	1.5
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	914	-	-	87	346	116	533	960	-	-
HCM Lane V/C Ratio	0.036	-	-	0.387	0.383	5.163	0.306	0.094	-	-
HCM Control Delay (s)	9.1	0.2	-	70.4	21.3	$ 1947.1	14.7	9.1	0.5	-
HCM Lane LOS	A	A	-	F	C	F	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	1.8	63.9	1.3	0.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	538	38	38	535	34	34
Future Vol, veh/h	538	38	38	535	34	34
Conflicting Peds, #/hr	0	5	5	0	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	286	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	585	41	41	582	37	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	629	0	1272	613
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	664	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	953	-	185	492
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	949	-	176	489
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	488	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	16.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	382	-	-	949	-
HCM Lane V/C Ratio	0.193	-	-	0.044	-
HCM Control Delay (s)	16.7	-	-	9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

YEAR 2018 BUILD CONDITIONS
CAPACITY ANALYSIS RESULTS

US-41/Front St-2018 Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2018 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 42

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor				U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00				0	144	0	84	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00				0	146	0	356	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00				0	770	450	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	144	84	770	0	1385	1436	0.1070	0.0592	3.79	0.59	2.61	0.13	0.00	0.35	0.00	A	A	A
2	EB US 41	Free	146	356	144	0	1738	1444	0.0856	0.2497	2.96	2.23	2.45	0.10	0.00	0.26	0.00	A	A	A
3	NB US 41/Front ...	None	1220		146		2033		0.6172		10.26		10.26	2.86		6.99		B		B
All	Intersection												7.35							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

US-41/Front St-2018 Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2018 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 48

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor				U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00				0	479	0	229	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00				0	193	0	1163	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00				0	608	339	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	479	229	608	0	1495	1436	0.3294	0.1614	5.87	1.60	4.49	0.55	0.00	1.44	0.00	A	A	A
2	EB US 41	Free	193	1163	479	0	1123	1350	0.1766	0.8723	5.36	5.31	5.31	0.23	0.00	0.62	0.00	A	A	A
3	NB US 41/Front ...	None	947		193		1999		0.4858		8.17		8.17	1.62		4.09		A		A
All	Intersection												6.02							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

US-41/7th St-2018 Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (7th-US41).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: 7th St & US-41 | Flows: 2018 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 116

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB 7th St	Y	0	0	12.00	1	18.00	1	55.00	121.00	27.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	90	0	24.00	2	27.00	2	70.00	64.00	24.50	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	NB 7th St	Y	180	0	12.00	1	18.00	1	118.00	76.00	15.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
4	WB US-41	Y	270	0	24.00	2	27.00	2	70.00	150.00	24.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB 7th St	5.0	1.00			0	21	82	0	116	0.750	1.125	0.750	0	30	60	
2	EB US-41	5.0	1.00			0	113	447	62	0	0.750	1.125	0.750	0	30	60	
3	NB 7th St	5.0	1.00			0	35	173	35	0	0.750	1.125	0.750	0	30	60	
4	WB US-41	5.0	1.00			0	35	720	98	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB 7th St	Yield	103	116	790	790	1093	1177	0.0969	0.1014	4.38	4.39	4.39	0.12	0.13	0.31	0.34	A	A	A
2	EB US-41	None	622		138		2122		0.2989		5.13		5.13	0.56		1.47		A		A
3	NB 7th St	None	243		581		946		0.2645		7.04		7.04	0.39		1.03		A		A
4	WB US-41	None	853		321		1962		0.4456		6.49		6.49	1.02		2.62		A		A
All	Intersection												5.89							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/7th St-2018 Build-AM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (7th-US41).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: 7th St & US-41 | Flows: 2018 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 117

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB 7th St	Y	0	0	12.00	1	18.00	1	55.00	121.00	27.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	90	0	24.00	2	27.00	2	70.00	64.00	24.50	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	NB 7th St	Y	180	0	12.00	1	18.00	1	118.00	76.00	15.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
4	WB US-41	Y	270	0	24.00	2	27.00	2	70.00	150.00	24.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB 7th St	5.0	1.00			0	21	82	0	116	0.750	1.125	0.750	0	30	60	
2	EB US-41	5.0	1.00			0	113	447	62	0	0.750	1.125	0.750	0	30	60	
3	NB 7th St	5.0	1.00			0	35	173	35	0	0.750	1.125	0.750	0	30	60	
4	WB US-41	5.0	1.00			0	35	720	98	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB 7th St	Yield	103	116	790	790	906	980	0.1175	0.1222	5.38	5.38	5.38	0.15	0.16	0.39	0.43	A	A	A
2	EB US-41	None	622		138		1935		0.3282		5.66		5.66	0.65		1.68		A		A
3	NB 7th St	None	243		581		758		0.3319		9.09		9.09	0.55		1.43		A		A
4	WB US-41	None	853		321		1774		0.4938		7.40		7.40	1.25		3.20		A		A
All	Intersection												6.82							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/7th St-2018 Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (7th-US41).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: 7th St & US-41 | Flows: 2018 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 119

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB 7th St	Y	0	0	12.00	1	18.00	1	55.00	121.00	27.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	90	0	24.00	2	27.00	2	70.00	64.00	24.50	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	NB 7th St	Y	180	0	12.00	1	18.00	1	118.00	76.00	15.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
4	WB US-41	Y	270	0	24.00	2	27.00	2	70.00	150.00	24.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB 7th St	5.0	1.00			0	70	247	0	195	0.750	1.125	0.750	0	30	60	
2	EB US-41	5.0	1.00			0	73	1204	75	0	0.750	1.125	0.750	0	30	60	
3	NB 7th St	5.0	1.00			0	37	102	81	0	0.750	1.125	0.750	0	30	60	
4	WB US-41	5.0	1.00			0	65	731	40	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB 7th St	Yield	317	195	833	833	1075	1158	0.3042	0.1735	6.88	5.46	6.34	0.49	0.25	1.28	0.65	A	A	A
2	EB US-41	None	1352		382		1949		0.7142		10.20		10.20	3.22		7.78		B		B
3	NB 7th St	None	220		1347		662		0.3508		10.43		10.43	0.64		1.66		B		B
4	WB US-41	None	836		212		2072		0.4123		5.86		5.86	0.84		2.18		A		A
All	Intersection												8.30							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/7th St-2018 Build-PM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (7th-US41).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: 7th St & US-41 | Flows: 2018 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 120

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB 7th St	Y	0	0	12.00	1	18.00	1	55.00	121.00	27.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	90	0	24.00	2	27.00	2	70.00	64.00	24.50	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	NB 7th St	Y	180	0	12.00	1	18.00	1	118.00	76.00	15.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
4	WB US-41	Y	270	0	24.00	2	27.00	2	70.00	150.00	24.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB 7th St	5.0	1.00			0	70	247	0	195	0.750	1.125	0.750	0	30	60	
2	EB US-41	5.0	1.00			0	73	1204	75	0	0.750	1.125	0.750	0	30	60	
3	NB 7th St	5.0	1.00			0	37	102	81	0	0.750	1.125	0.750	0	30	60	
4	WB US-41	5.0	1.00			0	65	731	40	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB 7th St	Yield	317	195	833	833	888	961	0.3706	0.2100	8.66	6.70	7.91	0.67	0.31	1.74	0.82	A	A	A
2	EB US-41	None	1352		382		1762		0.7956		13.36		13.36	5.19		12.02		B		B
3	NB 7th St	None	220		1347		475		0.5027		17.35		17.35	1.29		3.27		C		C
4	WB US-41	None	836		212		1884		0.4540		6.57		6.57	1.01		2.58		A		A
All	Intersection												10.76							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Hospital Dr-2018 Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Hosp Dr-US41).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Hospital Dr & US-41 | Flows: 2018 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 57

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Drive	Y	0	0	12.00	1	18.00	1	76.50	62.00	35.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	120	0	24.00	2	28.00	2	95.00	94.00	40.00	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	WB US-41	Y	240	0	24.00	2	28.00	2	95.00	123.00	15.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor				U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Drive	3.0	1.00				0	83	0	83	0.750	1.125	0.750	0	30	60	
2	EB US-41	3.0	1.00				0	192	538	0	0.750	1.125	0.750	0	30	60	
3	WB US-41	3.0	1.00				0	678	192	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Drive	Yield	83	83	678	678	1155	1256	0.0737	0.0678	3.96	3.73	3.85	0.09	0.08	0.23	0.22	A	A	A
2	EB US-41	None	730		83		1994		0.3740		6.48		6.48	0.91		2.33		A		A
3	WB US-41	None	870		192		2238		0.3974		6.13		6.13	0.96		2.48		A		A
All	Intersection												6.06							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Hospital Dr-2018 Build-AM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Hosp Dr-US41).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Hospital Dr & US-41 | Flows: 2018 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 58

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Drive	Y	0	0	12.00	1	18.00	1	76.50	62.00	35.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	120	0	24.00	2	28.00	2	95.00	94.00	40.00	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	WB US-41	Y	240	0	24.00	2	28.00	2	95.00	123.00	15.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor				U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Drive	3.0	1.00				0	83	0	83	0.750	1.125	0.750	0	30	60	
2	EB US-41	3.0	1.00				0	192	538	0	0.750	1.125	0.750	0	30	60	
3	WB US-41	3.0	1.00				0	678	192	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Drive	Yield	83	83	678	678	960	1055	0.0890	0.0810	4.83	4.50	4.67	0.11	0.10	0.29	0.27	A	A	A
2	EB US-41	None	730		83		1799		0.4153		7.34		7.34	1.08		2.77		A		A
3	WB US-41	None	870		192		2043		0.4360		6.85		6.85	1.14		2.91		A		A
All	Intersection												6.85							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Hospital Dr-2018 Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Hosp Dr-US41).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr & US-41 | Flows: 2018 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 60

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Drive	Y	0	0	12.00	1	18.00	1	76.50	62.00	35.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	120	0	24.00	2	28.00	2	95.00	94.00	40.00	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	WB US-41	Y	240	0	24.00	2	28.00	2	95.00	123.00	15.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor				U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Drive	3.0	1.00				0	425	0	425	0.750	1.125	0.750	0	30	60	
2	EB US-41	3.0	1.00				0	187	927	0	0.750	1.125	0.750	0	30	60	
3	WB US-41	3.0	1.00				0	776	187	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Drive	Yield	425	425	776	776	1115	1213	0.3933	0.3614	7.90	7.39	7.64	0.76	0.69	1.95	1.78	A	A	A
2	EB US-41	None	1114		425		1767		0.6503		10.51		10.51	2.79		6.81		B		B
3	WB US-41	None	963		187		2243		0.4390		6.43		6.43	1.12		2.85		A		A
All	Intersection												8.34							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Hospital Dr-2018 Build-PM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Hosp Dr-US41).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr & US-41 | Flows: 2018 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 62

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Drive	Y	0	0	12.00	1	18.00	1	76.50	62.00	35.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	120	0	24.00	2	28.00	2	95.00	94.00	40.00	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	WB US-41	Y	240	0	24.00	2	28.00	2	95.00	123.00	15.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor				U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Drive	3.0	1.00				0	425	0	425	0.750	1.125	0.750	0	30	60	
2	EB US-41	3.0	1.00				0	187	927	0	0.750	1.125	0.750	0	30	60	
3	WB US-41	3.0	1.00				0	776	187	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Drive	Yield	425	425	776	776	917	1008	0.4815	0.4369	10.38	9.43	9.90	1.11	0.97	2.84	2.50	B	A	A
2	EB US-41	None	1114		425		1572		0.7362		13.81		13.81	4.37		10.28		B		B
3	WB US-41	None	963		187		2048		0.4815		7.23		7.23	1.34		3.40		A		A
All	Intersection												10.51							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

Baraga Ave/Hospital Dr-2018 Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Hosp-Baraga).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2018 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 95

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	166	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	87	0	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	0	383	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	72	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	166		72		1581		0.1070		3.43		3.43	0.13		0.34		A		A
2	EB Baraga	None	87		166		1016		0.0876		4.50		4.50	0.10		0.27		A		A
3	NB Hospital	None	383		87		1957		0.1993		4.03		4.03	0.27		0.70		A		A
4	WB Baraga	None	72		383		953		0.0775		4.61		4.61	0.09		0.24		A		A
All	Intersection												4.01							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Baraga Ave/Hospital Dr-2018 Build-AM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Hosp-Baraga).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2018 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 96

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	166	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	87	0	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	0	383	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	72	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	166		72		1393		0.1215		3.94		3.94	0.15		0.39		A		A
2	EB Baraga	None	87		166		828		0.1077		5.61		5.61	0.13		0.34		A		A
3	NB Hospital	None	383		87		1770		0.2207		4.45		4.45	0.30		0.80		A		A
4	WB Baraga	None	72		383		765		0.0968		5.84		5.84	0.11		0.30		A		A
All	Intersection												4.61							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Baraga Ave/Hospital Dr-2018 Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Hosp-Baraga).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2018 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 99

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	849	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	183	0	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	0	373	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	57	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	849		57		1595		0.5447		7.96		7.96	1.33		3.39		A		A
2	EB Baraga	None	183		849		765		0.2485		7.99		7.99	0.37		0.97		A		A
3	NB Hospital	None	373		183		1857		0.2049		4.20		4.20	0.28		0.73		A		A
4	WB Baraga	None	57		373		957		0.0611		4.37		4.37	0.07		0.18		A		A
All	Intersection												6.86							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

Baraga Ave/Hospital Dr-2018 Build-PM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2018 Build\2018 Build (Hosp-Baraga).rod

File View Help

Project: Marquette Hospital 2018 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2018 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 101

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	849	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	183	0	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	0	373	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	57	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	849		57		1408		0.6194		9.75		9.75	1.83		4.59		A		A
2	EB Baraga	None	183		849		577		0.3329		11.19		11.19	0.57		1.48		B		B
3	NB Hospital	None	373		183		1670		0.2282		4.66		4.66	0.32		0.84		A		A
4	WB Baraga	None	57		373		769		0.0762		5.51		5.51	0.09		0.23		A		A
All	Intersection												8.47							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

HCM 2010 Signalized Intersection Summary
1: McCLELLAN AVE & GROVE ST

3/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	81	35	30	24	23	27	424	76	5	131	12
Future Volume (veh/h)	48	81	35	30	24	23	27	424	76	5	131	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1862	1862	1862	1928	1928	1928	1772	1783	1843	1862	1829	1862
Adj Flow Rate, veh/h	62	111	61	42	32	36	40	544	104	12	172	16
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.78	0.73	0.57	0.72	0.75	0.64	0.68	0.78	0.73	0.42	0.76	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	4	4	4	0	2	2
Cap, veh/h	546	417	229	465	306	344	616	1402	267	381	1588	146
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1327	1131	621	1251	830	934	1133	2840	541	780	3217	296
Grp Volume(v), veh/h	62	0	172	42	0	68	40	324	324	12	92	96
Grp Sat Flow(s),veh/h/ln	1327	0	1752	1251	0	1764	1133	1694	1688	780	1737	1776
Q Serve(g_s), s	2.6	0.0	5.5	1.9	0.0	2.0	1.6	9.6	9.6	0.8	2.3	2.3
Cycle Q Clear(g_c), s	4.6	0.0	5.5	7.4	0.0	2.0	3.9	9.6	9.6	10.4	2.3	2.3
Prop In Lane	1.00		0.35	1.00		0.53	1.00		0.32	1.00		0.17
Lane Grp Cap(c), veh/h	546	0	646	465	0	650	616	836	833	381	858	877
V/C Ratio(X)	0.11	0.00	0.27	0.09	0.00	0.10	0.06	0.39	0.39	0.03	0.11	0.11
Avail Cap(c_a), veh/h	546	0	646	465	0	650	616	836	833	381	858	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	17.7	20.3	0.0	16.6	11.9	12.7	12.7	16.0	10.8	10.8
Incr Delay (d2), s/veh	0.4	0.0	1.0	0.4	0.0	0.3	0.2	1.4	1.4	0.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.8	0.7	0.0	1.0	0.5	4.7	4.7	0.2	1.1	1.2
LnGrp Delay(d),s/veh	18.5	0.0	18.7	20.7	0.0	16.9	12.1	14.0	14.1	16.1	11.1	11.1
LnGrp LOS	B		B	C		B	B	B	B	B	B	B
Approach Vol, veh/h		234			110			688			200	
Approach Delay, s/veh		18.6			18.3			13.9			11.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		39.5		29.5		39.5		29.5
Max Q Clear Time (g_c+I1), s		11.6		7.5		12.4		9.4
Green Ext Time (p_c), s		5.7		1.6		5.7		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	363	31	57	248	39	75	396	113	58	172	58
Future Volume (veh/h)	89	363	31	57	248	39	75	396	113	58	172	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1900	1938
Adj Flow Rate, veh/h	97	395	34	62	270	42	82	430	123	63	187	63
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	452	887	76	395	788	121	564	936	265	416	920	301
Arrive On Green	0.09	0.27	0.27	0.08	0.26	0.26	0.05	0.23	0.23	0.08	0.34	0.34
Sat Flow, veh/h	1774	3300	283	1774	3076	473	1774	2724	772	1810	2676	874
Grp Volume(v), veh/h	97	211	218	62	154	158	82	278	275	63	124	126
Grp Sat Flow(s),veh/h/ln	1774	1770	1813	1774	1770	1779	1774	1770	1726	1810	1805	1746
Q Serve(g_s), s	3.0	7.9	8.0	1.9	5.7	5.8	2.3	10.8	11.0	1.7	3.9	4.1
Cycle Q Clear(g_c), s	3.0	7.9	8.0	1.9	5.7	5.8	2.3	10.8	11.0	1.7	3.9	4.1
Prop In Lane	1.00		0.16	1.00		0.27	1.00		0.45	1.00		0.50
Lane Grp Cap(c), veh/h	452	476	487	395	453	456	564	608	593	416	620	600
V/C Ratio(X)	0.21	0.44	0.45	0.16	0.34	0.35	0.15	0.46	0.46	0.15	0.20	0.21
Avail Cap(c_a), veh/h	452	476	487	395	453	456	564	608	593	416	620	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	24.3	24.3	18.5	24.2	24.3	14.4	24.4	24.4	14.5	18.5	18.6
Incr Delay (d2), s/veh	1.1	3.0	3.0	0.8	2.0	2.1	0.5	2.5	2.6	0.8	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.3	4.4	1.0	3.0	3.1	1.2	5.7	5.7	0.9	2.1	2.1
LnGrp Delay(d),s/veh	19.2	27.3	27.3	19.4	26.3	26.4	14.9	26.8	27.0	15.3	19.2	19.4
LnGrp LOS	B	C	C	B	C	C	B	C	C	B	B	B
Approach Vol, veh/h		526			374			635			313	
Approach Delay, s/veh		25.8			25.2			25.4			18.5	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	33.0	10.0	27.0	10.0	33.0	11.0	26.0
Change Period (Y+Rc), s	3.5	5.5	3.5	5.5	3.5	5.5	3.5	5.5
Max Green Setting (Gmax), s	6.5	27.5	6.5	21.5	6.5	27.5	7.5	20.5
Max Q Clear Time (g_c+I1), s	3.7	13.0	3.9	10.0	4.3	6.1	5.0	7.8
Green Ext Time (p_c), s	0.0	4.1	0.0	3.3	0.0	4.8	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	264	43	14	219	20	83	293	20	11	181	45
Future Volume (veh/h)	55	264	43	14	219	20	83	293	20	11	181	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1842	1946	1900	1900	1976	1938	1903	1938	1769	1843	1917
Adj Flow Rate, veh/h	66	357	68	16	296	28	163	458	34	16	270	57
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.74	0.63	0.88	0.74	0.71	0.51	0.64	0.58	0.69	0.67	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	363	533	102	281	606	57	486	785	58	348	662	140
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1054	1504	286	976	1709	162	1091	1750	130	856	1476	312
Grp Volume(v), veh/h	66	0	425	16	0	324	163	0	492	16	0	327
Grp Sat Flow(s),veh/h/ln	1054	0	1790	976	0	1871	1091	0	1880	856	0	1788
Q Serve(g_s), s	2.9	0.0	11.0	0.8	0.0	7.4	6.5	0.0	10.7	0.8	0.0	6.8
Cycle Q Clear(g_c), s	10.3	0.0	11.0	11.8	0.0	7.4	13.3	0.0	10.7	11.5	0.0	6.8
Prop In Lane	1.00		0.16	1.00		0.09	1.00		0.07	1.00		0.17
Lane Grp Cap(c), veh/h	363	0	635	281	0	664	486	0	843	348	0	802
V/C Ratio(X)	0.18	0.00	0.67	0.06	0.00	0.49	0.34	0.00	0.58	0.05	0.00	0.41
Avail Cap(c_a), veh/h	654	0	1129	551	0	1180	486	0	843	348	0	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	15.0	20.0	0.0	13.8	14.7	0.0	11.3	15.6	0.0	10.2
Incr Delay (d2), s/veh	0.2	0.0	1.2	0.1	0.0	0.6	1.9	0.0	2.9	0.2	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	5.6	0.2	0.0	3.9	2.2	0.0	6.2	0.2	0.0	3.6
LnGrp Delay(d),s/veh	18.1	0.0	16.2	20.1	0.0	14.4	16.6	0.0	14.3	15.9	0.0	11.8
LnGrp LOS	B		B	C		B	B		B	B		B
Approach Vol, veh/h		491			340			655			343	
Approach Delay, s/veh		16.5			14.6			14.8			11.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		24.9		30.0		24.9
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		15.3		13.0		13.5		13.8
Green Ext Time (p_c), s		4.1		5.0		4.6		5.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

3/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	611	228	0	424	0	0	121	52
Future Volume (vph)	0	0	0	0	611	228	0	424	0	0	121	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3430	1586		1710			1889	1611
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3430	1586		1710			1889	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.86	0.76	0.92	0.77	0.82	0.92	0.78	0.66
Adj. Flow (vph)	0	0	0	0	710	300	0	551	0	0	155	79
RTOR Reduction (vph)	0	0	0	0	0	128	0	0	0	0	0	47
Lane Group Flow (vph)	0	0	0	0	710	172	0	551	0	0	155	32
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	4%	0%	0%	2%	8%	0%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1504	695		786			774	660
v/s Ratio Prot					c0.21			c0.32			0.08	
v/s Ratio Perm						0.11						0.02
v/c Ratio					0.47	0.25		0.70			0.20	0.05
Uniform Delay, d1					15.9	14.1		17.2			15.2	14.2
Progression Factor					1.00	1.00		0.12			1.08	1.68
Incremental Delay, d2					1.1	0.8		4.1			0.6	0.1
Delay (s)					17.0	15.0		6.2			17.0	24.0
Level of Service					B	B		A			B	C
Approach Delay (s)		0.0			16.4			6.2			19.4	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	661	104	0	0	0	0	388	145	0	159	0
Future Volume (vph)	0	661	104	0	0	0	0	388	145	0	159	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3504	2005					1788	1436		2442	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3504	2005					1788	1436		2442	
Peak-hour factor, PHF	0.92	0.64	0.87	0.92	0.92	0.92	0.92	0.79	0.77	0.92	0.78	0.66
Adj. Flow (vph)	0	1033	120	0	0	0	0	491	188	0	204	0
RTOR Reduction (vph)	0	0	67	0	0	0	0	0	28	0	0	0
Lane Group Flow (vph)	0	1033	53	0	0	0	0	491	160	0	204	0
Heavy Vehicles (%)	0%	2%	1%	2%	2%	2%	0%	2%	8%	0%	2%	2%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1537	879					704	565		1083	
v/s Ratio Prot		c0.29						c0.27			0.08	
v/s Ratio Perm			0.03						0.11			
v/c Ratio		0.67	0.06					0.70	0.28		0.19	
Uniform Delay, d1		17.9	12.9					20.3	16.5		13.5	
Progression Factor		1.00	1.00					0.62	0.46		0.22	
Incremental Delay, d2		2.4	0.1					5.4	1.2		0.4	
Delay (s)		20.2	13.1					18.0	8.8		3.4	
Level of Service		C	B					B	A		A	
Approach Delay (s)		19.5			0.0			15.4			3.4	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	87	72	115	50	0
Future Vol, veh/h	0	87	72	115	50	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	1	-	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	95	78	125	54	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	203	0	-	0	236	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	4.12	-	-	-	6.82	6.42
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1369	-	-	-	733	900
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	919	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1369	-	-	-	733	900
Mov Cap-2 Maneuver	-	-	-	-	733	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	919	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1369	-	-	-	733	-
HCM Lane V/C Ratio	-	-	-	-	0.074	-
HCM Control Delay (s)	0	-	-	-	10.3	0
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	77	70	72	0	17	17
Future Vol, veh/h	77	70	72	0	17	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	76	78	0	18	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	78	0	-	0	321	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	243	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1520	-	-	-	697	987
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1520	-	-	-	657	987
Mov Cap-2 Maneuver	-	-	-	-	657	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	771	-

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1520	-	-	-	657	987
HCM Lane V/C Ratio	0.055	-	-	-	0.028	0.019
HCM Control Delay (s)	7.5	0	-	-	10.6	8.7
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	2.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Vol, veh/h	22	10	0	6	8	13	3	208	13	56	101	22
Future Vol, veh/h	22	10	0	6	8	13	3	208	13	56	101	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	8	-	-	10	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	11	0	7	9	14	3	226	14	61	110	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	494	490	122	489	495	233	134	0	0	240	0	0
Stage 1	243	243	-	240	240	-	-	-	-	-	-	-
Stage 2	251	247	-	249	255	-	-	-	-	-	-	-
Critical Hdwy	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	527	520	939	394	382	765	1451	-	-	1327	-	-
Stage 1	792	734	-	686	635	-	-	-	-	-	-	-
Stage 2	785	731	-	676	622	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	488	493	939	372	362	765	1451	-	-	1327	-	-
Mov Cap-2 Maneuver	488	493	-	372	362	-	-	-	-	-	-	-
Stage 1	790	697	-	685	634	-	-	-	-	-	-	-
Stage 2	758	730	-	632	591	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	12.9	12.8	0.1	2.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1451	-	-	489	490	1327	-	-
HCM Lane V/C Ratio	0.002	-	-	0.06	0.071	0.046	-	-
HCM Control Delay (s)	7.5	0	-	12.8	12.9	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	647	0	0	0	0	0	0	0	118	0	0
Future Vol, veh/h	0	647	0	0	0	0	0	0	0	118	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	703	0	0	0	0	0	0	0	128	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	703	703	351	352	703	0
Stage 1	-	-	-	703	703	-	0	0	-
Stage 2	-	-	-	0	0	-	352	703	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	372	360	645	619	360	-
Stage 1	-	-	-	452	438	-	-	-	-
Stage 2	-	-	-	-	-	-	683	438	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	372	0	645	619	0	-
Mov Cap-2 Maneuver	-	-	-	372	0	-	619	0	-
Stage 1	-	-	-	452	0	-	-	0	-
Stage 2	-	-	-	-	0	-	683	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	12.3
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	619	-
HCM Lane V/C Ratio	-	-	-	-	0.207	-
HCM Control Delay (s)	0	0	-	-	12.3	0
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	-	0.8	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	761	0	77	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	761	0	77	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	827	0	84	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	414	827	0	827	827	413
Stage 1	-	-	-	0	0	-	827	827	-
Stage 2	-	-	-	414	827	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	566	305	-	310	305	588
Stage 1	-	-	-	-	-	-	390	384	-
Stage 2	-	-	-	635	384	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	566	0	-	310	0	588
Mov Cap-2 Maneuver	-	-	-	566	0	-	310	0	-
Stage 1	-	-	-	-	0	-	390	0	-
Stage 2	-	-	-	635	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	12.5	0
HCM LOS		B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	566	-	-	-	-	-
HCM Lane V/C Ratio	0.148	-	-	-	-	-
HCM Control Delay (s)	12.5	0	0	-	-	0
HCM Lane LOS	B	A	A	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	34	17	2	12	39	23	4	340	14	8	152	78
Future Vol, veh/h	34	17	2	12	39	23	4	340	14	8	152	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	60	92	48	50	72	35	67	73	25
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	37	18	8	20	42	48	8	472	40	12	208	312

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	941	916	364	909	1052	492	520	0	0	512	0	0
Stage 1	388	388	-	508	508	-	-	-	-	-	-	-
Stage 2	553	528	-	401	544	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	189	213	652	271	242	589	1056	-	-	1064	-	-
Stage 1	574	550	-	567	558	-	-	-	-	-	-	-
Stage 2	447	459	-	644	538	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	148	209	652	246	237	589	1056	-	-	1064	-	-
Mov Cap-2 Maneuver	148	209	-	246	237	-	-	-	-	-	-	-
Stage 1	570	544	-	563	554	-	-	-	-	-	-	-
Stage 2	376	456	-	608	532	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.1	19.3	0.1	0.2
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1056	-	-	148	263	246	347	1064	-	-
HCM Lane V/C Ratio	0.008	-	-	0.25	0.101	0.081	0.26	0.011	-	-
HCM Control Delay (s)	8.4	-	-	37.2	20.2	20.9	19	8.4	-	-
HCM Lane LOS	A	-	-	E	C	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.3	0.3	1	0	-	-

Intersection	
Int Delay, s/veh	12.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	74	50	4	138	5	25	321	6	6	134	24
Future Vol, veh/h	13	74	50	4	138	5	25	321	6	6	134	24
Conflicting Peds, #/hr	74	0	13	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	65	60	69	50	72	31	69	70	85	50	73	75
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	20	123	72	8	192	16	36	459	7	12	184	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	936	836	274	930	849	462	290	0	0	466	0	0
Stage 1	298	298	-	535	535	-	-	-	-	-	-	-
Stage 2	638	538	-	395	314	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	274	335	781	263	315	612	1283	-	-	1106	-	-
Stage 1	739	693	-	549	543	-	-	-	-	-	-	-
Stage 2	503	558	-	648	671	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	110	301	729	157	283	612	1283	-	-	1106	-	-
Mov Cap-2 Maneuver	110	301	-	157	283	-	-	-	-	-	-	-
Stage 1	670	640	-	534	528	-	-	-	-	-	-	-
Stage 2	303	542	-	466	619	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.6	41.3	0.6	0.4
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1283	-	-	110	385	157	295	1106	-	-
HCM Lane V/C Ratio	0.028	-	-	0.182	0.509	0.051	0.704	0.011	-	-
HCM Control Delay (s)	7.9	-	-	44.9	23.6	29.2	41.8	8.3	-	-
HCM Lane LOS	A	-	-	E	C	D	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	2.8	0.2	4.9	0	-	-

Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	1	1	104	2	94	1	254	129	75	117	0
Future Vol, veh/h	1	1	1	104	2	94	1	254	129	75	117	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	10	-	-	-9	-	-	1	-
Peak Hour Factor	25	25	25	81	50	64	25	81	65	76	88	92
Heavy Vehicles, %	0	0	0	0	0	3	0	0	0	8	1	2
Mvmt Flow	4	4	4	128	4	147	4	314	198	99	133	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	727	652	133	656	652	314	133	0	0	314	0	0
Stage 1	330	330	-	322	322	-	-	-	-	-	-	-
Stage 2	397	322	-	334	330	-	-	-	-	-	-	-
Critical Hdwy	6.1	5.5	5.7	9.1	8.5	7.23	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.327	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	419	467	939	265	271	664	1464	-	-	1213	-	-
Stage 1	753	712	-	580	547	-	-	-	-	-	-	-
Stage 2	706	716	-	568	541	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	301	427	939	245	248	664	1464	-	-	1213	-	-
Mov Cap-2 Maneuver	301	427	-	245	248	-	-	-	-	-	-	-
Stage 1	750	654	-	578	545	-	-	-	-	-	-	-
Stage 2	544	713	-	516	497	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	40.1	0.1	3.5
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1464	-	-	446	367	1213	-	-
HCM Lane V/C Ratio	0.003	-	-	0.027	0.761	0.081	-	-
HCM Control Delay (s)	7.5	0	-	13.3	40.1	8.2	-	-
HCM Lane LOS	A	A	-	B	E	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	6.1	0.3	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	12	5	8	0	0	61	24	511	75	79	164	16
Future Vol, veh/h	12	5	8	0	0	61	24	511	75	79	164	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	0	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	50	42	40	60	50	100	55	88	66	59	89	57
Heavy Vehicles, %	0	0	0	0	0	0	0	1	5	0	3	0
Mvmt Flow	24	12	20	0	0	61	44	581	114	134	184	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	844	1248	106	1091	1205	347	212	0	0	694	0	0
Stage 1	466	466	-	725	725	-	-	-	-	-	-	-
Stage 2	378	782	-	366	480	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.2	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	226	142	926	194	212	668	1370	-	-	911	-	-
Stage 1	510	523	-	420	469	-	-	-	-	-	-	-
Stage 2	583	358	-	657	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	178	117	926	152	175	668	1370	-	-	911	-	-
Mov Cap-2 Maneuver	178	117	-	152	175	-	-	-	-	-	-	-
Stage 1	494	446	-	407	454	-	-	-	-	-	-	-
Stage 2	513	347	-	534	502	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.1	10.9	0.5	3.7
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1370	-	-	178	259	668	911	-	-
HCM Lane V/C Ratio	0.032	-	-	0.135	0.123	0.091	0.147	-	-
HCM Control Delay (s)	7.7	-	-	28.4	20.8	10.9	9.6	-	-
HCM Lane LOS	A	-	-	D	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.4	0.3	0.5	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	343	39	39	308	17	17
Future Vol, veh/h	343	39	39	308	17	17
Conflicting Peds, #/hr	0	5	5	0	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	286	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	373	42	42	335	18	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	418	0	817	402
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	420	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1141	-	346	648
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1137	-	331	644
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	636	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	530	-	-	1137	-
HCM Lane V/C Ratio	0.07	-	-	0.037	-
HCM Control Delay (s)	12.3	-	-	8.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 2010 Signalized Intersection Summary
1: McCLELLAN AVE & GROVE ST

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	55	19	183	80	17	35	276	55	35	471	64
Future Volume (veh/h)	39	55	19	183	80	17	35	276	55	35	471	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1862	1862	1862	1928	1928	1928	1772	1784	1843	1862	1830	1862
Adj Flow Rate, veh/h	50	75	33	254	107	27	51	354	75	83	620	85
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.78	0.73	0.57	0.72	0.75	0.64	0.68	0.78	0.73	0.42	0.76	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	4	4	4	0	2	2
Cap, veh/h	591	544	240	630	660	167	281	1169	245	408	1287	176
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1250	1227	540	1326	1487	375	704	2791	585	955	3073	421
Grp Volume(v), veh/h	50	0	108	254	0	134	51	213	216	83	350	355
Grp Sat Flow(s),veh/h/ln	1250	0	1767	1326	0	1862	704	1695	1681	955	1738	1756
Q Serve(g_s), s	2.0	0.0	2.9	11.2	0.0	3.5	4.6	6.7	6.8	5.1	11.7	11.8
Cycle Q Clear(g_c), s	5.4	0.0	2.9	14.1	0.0	3.5	16.3	6.7	6.8	11.9	11.7	11.8
Prop In Lane	1.00		0.31	1.00		0.20	1.00		0.35	1.00		0.24
Lane Grp Cap(c), veh/h	591	0	784	630	0	826	281	710	704	408	728	735
V/C Ratio(X)	0.08	0.00	0.14	0.40	0.00	0.16	0.18	0.30	0.31	0.20	0.48	0.48
Avail Cap(c_a), veh/h	591	0	784	630	0	826	281	710	704	408	728	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	13.2	17.4	0.0	13.3	22.9	15.5	15.5	19.5	16.9	16.9
Incr Delay (d2), s/veh	0.3	0.0	0.4	1.9	0.0	0.4	1.4	1.1	1.1	1.1	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.5	4.4	0.0	1.8	1.0	3.4	3.4	1.5	6.0	6.2
LnGrp Delay(d),s/veh	15.3	0.0	13.5	19.3	0.0	13.8	24.3	16.5	16.6	20.6	19.2	19.2
LnGrp LOS	B		B	B		B	C	B	B	C	B	B
Approach Vol, veh/h		158			388			480			788	
Approach Delay, s/veh		14.1			17.4			17.4			19.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		39.0		41.0		39.0		41.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		33.5		35.5		33.5		35.5
Max Q Clear Time (g_c+I1), s		18.3		7.4		13.9		16.1
Green Ext Time (p_c), s		6.8		2.4		7.7		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	448	73	158	680	103	174	324	102	108	453	159
Future Volume (veh/h)	111	448	73	158	680	103	174	324	102	108	453	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1900	1938
Adj Flow Rate, veh/h	121	487	79	172	739	112	189	352	111	117	492	173
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	832	134	406	944	143	366	825	256	413	738	258
Arrive On Green	0.08	0.27	0.27	0.11	0.31	0.31	0.07	0.21	0.21	0.08	0.28	0.28
Sat Flow, veh/h	1774	3053	493	1774	3083	467	1774	2660	827	1810	2625	918
Grp Volume(v), veh/h	121	281	285	172	424	427	189	232	231	117	337	328
Grp Sat Flow(s),veh/h/ln	1774	1770	1776	1774	1770	1780	1774	1770	1717	1810	1805	1738
Q Serve(g_s), s	3.8	11.0	11.1	5.1	17.5	17.5	5.7	9.1	9.4	3.5	13.2	13.4
Cycle Q Clear(g_c), s	3.8	11.0	11.1	5.1	17.5	17.5	5.7	9.1	9.4	3.5	13.2	13.4
Prop In Lane	1.00		0.28	1.00		0.26	1.00		0.48	1.00		0.53
Lane Grp Cap(c), veh/h	291	482	484	406	542	545	366	549	532	413	508	489
V/C Ratio(X)	0.42	0.58	0.59	0.42	0.78	0.78	0.52	0.42	0.43	0.28	0.66	0.67
Avail Cap(c_a), veh/h	291	482	484	406	542	545	366	549	532	413	508	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	25.2	25.2	17.0	25.3	25.3	18.6	25.5	25.6	17.9	25.4	25.5
Incr Delay (d2), s/veh	4.3	5.1	5.2	3.2	10.8	10.7	5.1	2.4	2.6	1.7	6.7	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.1	6.2	2.8	10.1	10.2	3.3	4.8	4.8	2.0	7.5	7.3
LnGrp Delay(d),s/veh	24.0	30.3	30.4	20.2	36.1	36.1	23.8	27.9	28.1	19.7	32.1	32.6
LnGrp LOS	C	C	C	C	D	D	C	C	C	B	C	C
Approach Vol, veh/h		687			1023			652			782	
Approach Delay, s/veh		29.2			33.4			26.8			30.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	30.3	12.7	27.3	12.0	28.0	10.0	30.0
Change Period (Y+Rc), s	3.5	5.5	3.5	5.5	3.5	5.5	3.5	5.5
Max Green Setting (Gmax), s	6.2	24.8	9.2	21.8	8.5	22.5	6.5	24.5
Max Q Clear Time (g_c+I1), s	5.5	11.4	7.1	13.1	7.7	15.4	5.8	19.5
Green Ext Time (p_c), s	0.0	5.7	0.1	5.2	0.0	3.8	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	464	82	21	436	23	49	303	31	33	249	95
Future Volume (veh/h)	77	464	82	21	436	23	49	303	31	33	249	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1840	1946	1900	1900	1976	1938	1904	1938	1769	1843	1917
Adj Flow Rate, veh/h	93	627	130	24	589	32	96	473	53	48	372	120
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.74	0.63	0.88	0.74	0.71	0.51	0.64	0.58	0.69	0.67	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	292	719	149	182	868	47	206	600	67	192	477	154
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	803	1478	306	718	1786	97	937	1682	188	829	1336	431
Grp Volume(v), veh/h	93	0	757	24	0	621	96	0	526	48	0	492
Grp Sat Flow(s),veh/h/ln	803	0	1785	718	0	1883	937	0	1871	829	0	1767
Q Serve(g_s), s	6.9	0.0	26.1	2.1	0.0	17.4	7.0	0.0	17.3	3.8	0.0	17.1
Cycle Q Clear(g_c), s	24.3	0.0	26.1	28.2	0.0	17.4	24.1	0.0	17.3	21.1	0.0	17.1
Prop In Lane	1.00		0.17	1.00		0.05	1.00		0.10	1.00		0.24
Lane Grp Cap(c), veh/h	292	0	868	182	0	916	206	0	668	192	0	631
V/C Ratio(X)	0.32	0.00	0.87	0.13	0.00	0.68	0.46	0.00	0.79	0.25	0.00	0.78
Avail Cap(c_a), veh/h	305	0	896	193	0	945	206	0	668	192	0	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	15.8	28.4	0.0	13.6	30.5	0.0	19.8	29.3	0.0	19.7
Incr Delay (d2), s/veh	0.6	0.0	9.2	0.3	0.0	1.9	7.4	0.0	9.1	3.1	0.0	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	14.8	0.4	0.0	9.5	2.2	0.0	10.6	1.0	0.0	10.0
LnGrp Delay(d),s/veh	23.5	0.0	25.0	28.7	0.0	15.5	37.8	0.0	29.0	32.4	0.0	29.0
LnGrp LOS	C		C	C		B	D		C	C		C
Approach Vol, veh/h		850			645			622			540	
Approach Delay, s/veh		24.9			16.0			30.3			29.3	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		38.9		30.0		38.9
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		26.1		28.1		23.1		30.2
Green Ext Time (p_c), s		0.0		4.6		1.0		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

4/8/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1277	157	0	424	0	0	406	242
Future Volume (vph)	0	0	0	0	1277	157	0	424	0	0	406	242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3430	1586		1710			1889	1611
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3430	1586		1710			1889	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.86	0.76	0.92	0.77	0.82	0.92	0.78	0.66
Adj. Flow (vph)	0	0	0	0	1485	207	0	551	0	0	521	367
RTOR Reduction (vph)	0	0	0	0	0	116	0	0	0	0	0	27
Lane Group Flow (vph)	0	0	0	0	1485	91	0	551	0	0	521	340
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	4%	0%	0%	2%	8%	0%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1504	695		786			774	660
v/s Ratio Prot					c0.43			c0.32			0.28	
v/s Ratio Perm						0.06						0.21
v/c Ratio					0.99	0.13		0.70			0.67	0.51
Uniform Delay, d1					22.2	13.4		17.2			19.2	17.7
Progression Factor					1.00	1.00		0.26			1.06	1.06
Incremental Delay, d2					20.4	0.4		4.6			4.4	2.7
Delay (s)					42.6	13.8		9.1			24.8	21.4
Level of Service					D	B		A			C	C
Approach Delay (s)		0.0			39.1			9.1			23.4	
Approach LOS		A			D			A			C	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1123	376	0	0	0	0	344	224	0	159	0
Future Volume (vph)	0	1123	376	0	0	0	0	344	224	0	159	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3504	2005					1788	1436		2442	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3504	2005					1788	1436		2442	
Peak-hour factor, PHF	0.92	0.64	0.87	0.92	0.92	0.92	0.92	0.79	0.77	0.92	0.78	0.66
Adj. Flow (vph)	0	1755	432	0	0	0	0	435	291	0	204	0
RTOR Reduction (vph)	0	0	210	0	0	0	0	0	28	0	0	0
Lane Group Flow (vph)	0	1755	222	0	0	0	0	435	263	0	204	0
Heavy Vehicles (%)	0%	2%	1%	2%	2%	2%	0%	2%	8%	0%	2%	2%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1537	879					704	565		1083	
v/s Ratio Prot		c0.50						c0.24			0.08	
v/s Ratio Perm			0.11						0.18			
v/c Ratio		1.14	0.25					0.62	0.47		0.19	
Uniform Delay, d1		22.4	14.2					19.4	18.0		13.5	
Progression Factor		1.00	1.00					0.75	0.67		0.00	
Incremental Delay, d2		72.2	0.7					4.0	2.7		0.3	
Delay (s)		94.6	14.9					18.5	14.8		0.3	
Level of Service		F	B					B	B		A	
Approach Delay (s)		78.9			0.0			17.0			0.3	
Approach LOS		E			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	59.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	183	57	112	255	0
Future Vol, veh/h	0	183	57	112	255	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	1	-	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	199	62	122	277	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	184	0	-	0	322	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	199	-
Critical Hdwy	4.12	-	-	-	6.82	6.42
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1391	-	-	-	648	922
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	816	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1391	-	-	-	648	922
Mov Cap-2 Maneuver	-	-	-	-	648	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	816	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1391	-	-	-	648	-
HCM Lane V/C Ratio	-	-	-	-	0.428	-
HCM Control Delay (s)	0	-	-	-	14.6	0
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	2.1	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	77	75	57	0	85	85
Future Vol, veh/h	77	75	57	0	85	85
Conflicting Peds, #/hr	98	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	82	62	0	92	92

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	62	0	-	0	311	160
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1541	-	-	-	705	893
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	815	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1426	-	-	-	661	826
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1426	-	-	-	661	826
HCM Lane V/C Ratio	0.059	-	-	-	0.14	0.112
HCM Control Delay (s)	7.7	0	-	-	11.3	9.9
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5	0.4

Intersection	
Int Delay, s/veh	3.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Vol, veh/h	30	8	3	17	7	57	1	133	20	57	300	33
Future Vol, veh/h	30	8	3	17	7	57	1	133	20	57	300	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	8	-	-	10	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	9	3	18	8	62	1	145	22	62	326	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	660	636	344	632	644	155	362	0	0	166	0	0
Stage 1	468	468	-	158	158	-	-	-	-	-	-	-
Stage 2	192	168	-	474	486	-	-	-	-	-	-	-
Critical Hdwy	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	420	440	719	297	294	861	1197	-	-	1412	-	-
Stage 1	622	607	-	787	715	-	-	-	-	-	-	-
Stage 2	836	781	-	463	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	365	415	719	279	278	861	1197	-	-	1412	-	-
Mov Cap-2 Maneuver	365	415	-	279	278	-	-	-	-	-	-	-
Stage 1	621	574	-	786	714	-	-	-	-	-	-	-
Stage 2	767	780	-	429	420	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	15.5	13.1	0.1	1.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1197	-	-	532	388	1412	-	-
HCM Lane V/C Ratio	0.001	-	-	0.165	0.115	0.044	-	-
HCM Control Delay (s)	8	0	-	13.1	15.5	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1383	0	0	0	0	0	0	0	116	0	0
Future Vol, veh/h	0	1383	0	0	0	0	0	0	0	116	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1503	0	0	0	0	0	0	0	126	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	1503	1503	751	752	1503	0
Stage 1	-	-	-	1503	1503	-	0	0	-
Stage 2	-	-	-	0	0	-	752	1503	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	112	120	353	346	120	-
Stage 1	-	-	-	170	183	-	-	-	-
Stage 2	-	-	-	-	-	-	426	183	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	112	0	353	346	0	-
Mov Cap-2 Maneuver	-	-	-	112	0	-	346	0	-
Stage 1	-	-	-	170	0	-	-	0	-
Stage 2	-	-	-	-	0	-	426	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	21.3
HCM LOS		A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	346	-
HCM Lane V/C Ratio	-	-	-	-	0.364	-
HCM Control Delay (s)	0	0	-	-	21.3	0
HCM Lane LOS	A	A	-	-	C	A
HCM 95th %tile Q(veh)	-	-	-	-	1.6	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	1201	0	206	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	1201	0	206	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1305	0	224	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	653	1305	0	1305	1305	652
Stage 1	-	-	-	0	0	-	1305	1305	-
Stage 2	-	-	-	653	1305	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	400	159	-	152	159	411
Stage 1	-	-	-	-	-	-	218	228	-
Stage 2	-	-	-	480	228	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	400	0	-	152	0	411
Mov Cap-2 Maneuver	-	-	-	400	0	-	152	0	-
Stage 1	-	-	-	-	0	-	218	0	-
Stage 2	-	-	-	480	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	24.9	0
HCM LOS		C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	400	-	-	-	-	-
HCM Lane V/C Ratio	0.56	-	-	-	-	-
HCM Control Delay (s)	24.9	0	0	-	-	0
HCM Lane LOS	C	A	A	-	-	A
HCM 95th %tile Q(veh)	3.3	-	-	-	-	-

Intersection	
Int Delay, s/veh	23.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	170	86	1	48	39	30	1	182	7	10	266	76
Future Vol, veh/h	170	86	1	48	39	30	1	182	7	10	266	76
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	60	92	48	50	72	35	67	73	25
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	185	93	4	80	42	63	2	253	20	15	364	304

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	865	823	516	862	965	263	668	0	0	273	0	0
Stage 1	546	546	-	267	267	-	-	-	-	-	-	-
Stage 2	319	277	-	595	698	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	217	247	524	291	271	786	931	-	-	1302	-	-
Stage 1	452	448	-	754	702	-	-	-	-	-	-	-
Stage 2	638	634	-	511	463	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 174	244	524	201	267	786	931	-	-	1302	-	-
Mov Cap-2 Maneuver	~ 174	244	-	201	267	-	-	-	-	-	-	-
Stage 1	451	443	-	752	700	-	-	-	-	-	-	-
Stage 2	551	633	-	395	458	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	101.5	23.7	0.1	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	931	-	-	174	249	201	440	1302	-	-
HCM Lane V/C Ratio	0.002	-	-	1.062	0.391	0.398	0.238	0.011	-	-
HCM Control Delay (s)	8.9	-	-	140	28.5	34.3	15.7	7.8	-	-
HCM Lane LOS	A	-	-	F	D	D	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	9	1.8	1.8	0.9	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	186.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	12	293	133	15	137	12	14	167	2	16	281	18
Future Vol, veh/h	12	293	133	15	137	12	14	167	2	16	281	18
Conflicting Peds, #/hr	74	0	13	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	65	60	69	50	72	31	69	70	85	50	73	75
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	18	488	193	30	190	39	20	239	2	32	385	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	930	817	471	1155	827	240	483	0	0	241	0	0
Stage 1	535	535	-	280	280	-	-	-	-	-	-	-
Stage 2	395	282	-	875	547	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	277	~ 343	613	187	324	809	1090	-	-	1337	-	-
Stage 1	565	559	-	743	693	-	-	-	-	-	-	-
Stage 2	663	703	-	364	537	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	113	~ 307	572	-	290	809	1090	-	-	1337	-	-
Mov Cap-2 Maneuver	113	~ 307	-	-	290	-	-	-	-	-	-	-
Stage 1	518	509	-	729	680	-	-	-	-	-	-	-
Stage 2	446	690	-	~ 10	489	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 442.8		0.6	0.6
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1090	-	-	113	353	-	325	1337	-	-
HCM Lane V/C Ratio	0.019	-	-	0.163	1.929	-	0.705	0.024	-	-
HCM Control Delay (s)	8.4	-	-	43	$ 453.6	-	38.7	7.8	-	-
HCM Lane LOS	A	-	-	E	F	-	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	46.5	-	5	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	70.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	2	2	177	0	56	3	137	78	91	337	1
Future Vol, veh/h	0	2	2	177	0	56	3	137	78	91	337	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	10	-	-	-9	-	-	1	-
Peak Hour Factor	25	25	25	81	50	64	25	81	65	76	88	92
Heavy Vehicles, %	0	0	0	0	0	3	0	0	0	8	1	2
Mvmt Flow	0	8	8	219	0	88	12	169	120	120	383	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	860	816	383	824	817	169	384	0	0	169	0	0
Stage 1	623	623	-	193	193	-	-	-	-	-	-	-
Stage 2	237	193	-	631	624	-	-	-	-	-	-	-
Critical Hdwy	6.1	5.5	5.7	9.1	8.5	7.23	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.327	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	353	393	705	~ 186	199	832	1186	-	-	1373	-	-
Stage 1	567	572	-	731	669	-	-	-	-	-	-	-
Stage 2	823	786	-	333	340	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	292	354	705	~ 167	179	832	1186	-	-	1373	-	-
Mov Cap-2 Maneuver	292	354	-	~ 167	179	-	-	-	-	-	-	-
Stage 1	560	522	-	722	661	-	-	-	-	-	-	-
Stage 2	728	777	-	296	310	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	254.8	0.3	1.9
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1186	-	-	471	216	1373	-	-
HCM Lane V/C Ratio	0.01	-	-	0.034	1.417	0.087	-	-
HCM Control Delay (s)	8.1	0	-	12.9	254.8	7.9	-	-
HCM Lane LOS	A	A	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	17.7	0.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	21.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	31	14	125	0	0	174	30	395	60	83	522	78
Future Vol, veh/h	31	14	125	0	0	174	30	395	60	83	522	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	0	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	50	42	40	60	50	100	55	88	66	59	89	57
Heavy Vehicles, %	0	0	0	0	0	0	0	1	5	0	3	0
Mvmt Flow	62	33	313	0	0	174	55	449	91	141	587	137

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1270	1585	362	1194	1608	270	723	0	0	540	0	0
Stage 1	936	936	-	603	603	-	-	-	-	-	-	-
Stage 2	334	649	-	591	1005	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.2	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	103	84	621	165	127	745	889	-	-	1039	-	-
Stage 1	247	296	-	489	526	-	-	-	-	-	-	-
Stage 2	623	421	-	497	360	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	67	68	621	44	103	745	889	-	-	1039	-	-
Mov Cap-2 Maneuver	67	68	-	44	103	-	-	-	-	-	-	-
Stage 1	232	256	-	459	493	-	-	-	-	-	-	-
Stage 2	448	395	-	186	311	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	98.8	11.3	0.9	1.5
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	889	-	-	67	348	745	1039	-	-
HCM Lane V/C Ratio	0.061	-	-	0.925	0.994	0.234	0.135	-	-
HCM Control Delay (s)	9.3	-	-	192.5	82	11.3	9	-	-
HCM Lane LOS	A	-	-	F	F	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	4.5	11.3	0.9	0.5	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	538	38	38	535	85	85
Future Vol, veh/h	538	38	38	535	85	85
Conflicting Peds, #/hr	0	5	5	0	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	286	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	585	41	41	582	92	92

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	629	0	1272	613
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	664	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	953	-	185	492
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	949	-	176	489
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	488	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	22.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	382	-	-	949	-
HCM Lane V/C Ratio	0.484	-	-	0.044	-
HCM Control Delay (s)	22.9	-	-	9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	2.5	-	-	0.1	-

YEAR 2038 BACKGROUND CONDITIONS
CAPACITY ANALYSIS RESULTS

US-41/Front St-2038 Background-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Background\2038 Background (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2038 Backgrour | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2038 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 63

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	159	0	93	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	161	0	309	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	655	497	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	159	93	655	0	1463	1436	0.1116	0.0656	3.70	0.65	2.58	0.14	0.00	0.36	0.00	A	A	A
2	EB US 41	Free	161	309	159	0	1728	1444	0.0950	0.2167	3.09	2.05	2.41	0.11	0.00	0.30	0.00	A	A	A
3	NB US 41/Front ...	None	1152		161		2022		0.5863		10.36		10.36	2.77		6.77		B		B
All	Intersection												7.32							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Front St-2038 Background-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Background\2038 Background (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2038 Backgrour | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2038 | Delay: Control | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 65

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	529	0	253	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	213	0	853	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	481	375	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	529	253	481	0	1581	1436	0.3432	0.1784	5.81	1.77	4.50	0.58	0.00	1.51	0.00	A	A	A
2	EB US 41	Free	213	853	529	0	1408	1417	0.1552	0.6098	4.35	4.01	4.08	0.20	0.00	0.53	0.00	A	A	A
3	NB US 41/Front ...	None	856		213		1984		0.4428		8.31		8.31	1.55		3.91		A		A
All	Intersection												5.54							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	358	29	63	256	43	49	430	124	64	173	64
Future Volume (veh/h)	99	358	29	63	256	43	49	430	124	64	173	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1900	1938
Adj Flow Rate, veh/h	108	389	32	68	278	47	53	467	135	70	188	70
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	434	1254	103	387	1149	192	573	1261	362	395	1208	435
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1051	3313	271	962	3036	507	1117	2715	779	830	2602	937
Grp Volume(v), veh/h	108	207	214	68	161	164	53	303	299	70	128	130
Grp Sat Flow(s),veh/h/ln	1051	1770	1815	962	1770	1773	1117	1770	1725	830	1805	1735
Q Serve(g_s), s	5.5	5.8	5.8	3.8	4.3	4.4	2.0	7.8	7.9	4.2	2.9	3.0
Cycle Q Clear(g_c), s	9.9	5.8	5.8	9.6	4.3	4.4	5.0	7.8	7.9	12.0	2.9	3.0
Prop In Lane	1.00		0.15	1.00		0.29	1.00		0.45	1.00		0.54
Lane Grp Cap(c), veh/h	434	670	687	387	670	671	573	822	801	395	838	805
V/C Ratio(X)	0.25	0.31	0.31	0.18	0.24	0.24	0.09	0.37	0.37	0.18	0.15	0.16
Avail Cap(c_a), veh/h	434	670	687	387	670	671	573	822	801	395	838	805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	15.3	15.3	18.7	14.9	14.9	12.3	12.1	12.1	16.0	10.8	10.9
Incr Delay (d2), s/veh	1.4	1.2	1.2	1.0	0.8	0.9	0.3	1.3	1.3	1.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.0	3.1	1.1	2.3	2.3	0.7	4.1	4.0	1.1	1.5	1.5
LnGrp Delay(d),s/veh	19.7	16.5	16.5	19.7	15.7	15.8	12.6	13.4	13.5	17.0	11.2	11.3
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		529			393			655			328	
Approach Delay, s/veh		17.2			16.4			13.4			12.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.0		32.0		38.0		32.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		32.5		26.5		32.5		26.5
Max Q Clear Time (g_c+I1), s		9.9		11.9		14.0		11.6
Green Ext Time (p_c), s		6.1		4.5		5.6		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	22	191	39	23	71	128	125	409	61	39	600	109
Future Volume (veh/h)	22	191	39	23	71	128	125	409	61	39	600	109
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1948	1948	1870	1891	1986	1986	1986	1819	1910	1956	1809	1881
Adj Flow Rate, veh/h	32	230	44	29	81	149	187	553	77	46	759	149
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.83	0.89	0.79	0.88	0.86	0.67	0.74	0.79	0.85	0.79	0.73
Percent Heavy Veh, %	0	0	0	5	0	0	0	5	0	0	4	0
Cap, veh/h	122	217	41	111	85	157	208	1676	787	205	1667	775
Arrive On Green	0.16	0.14	0.14	0.16	0.14	0.14	0.11	0.49	0.49	0.11	0.49	0.49
Sat Flow, veh/h	1198	1590	304	1117	628	1154	1891	3455	1623	1863	3436	1599
Grp Volume(v), veh/h	32	0	274	29	0	230	187	553	77	46	759	149
Grp Sat Flow(s),veh/h/ln	1198	0	1894	1117	0	1782	1891	1728	1623	1863	1718	1599
Q Serve(g_s), s	2.1	0.0	10.9	1.5	0.0	10.2	7.8	7.9	2.1	1.8	11.7	4.2
Cycle Q Clear(g_c), s	12.4	0.0	10.9	12.4	0.0	10.2	7.8	7.9	2.1	1.8	11.7	4.2
Prop In Lane	1.00		0.16	1.00		0.65	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	0	258	111	0	243	208	1676	787	205	1667	775
V/C Ratio(X)	0.26	0.00	1.06	0.26	0.00	0.95	0.90	0.33	0.10	0.22	0.46	0.19
Avail Cap(c_a), veh/h	122	0	258	111	0	243	208	1676	787	205	1667	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	34.6	39.5	0.0	34.3	35.2	12.6	11.1	32.5	13.6	11.7
Incr Delay (d2), s/veh	1.1	0.0	73.3	1.2	0.0	43.3	40.6	0.5	0.2	2.5	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	10.9	0.7	0.0	8.0	6.4	3.8	1.0	1.1	5.7	2.0
LnGrp Delay(d),s/veh	40.0	0.0	107.9	40.7	0.0	77.6	75.8	13.2	11.4	35.0	14.5	12.3
LnGrp LOS	D		F	D		E	E	B	B	D	B	B
Approach Vol, veh/h		306			259			817			954	
Approach Delay, s/veh		100.8			73.4			27.3			15.2	
Approach LOS		F			E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	45.0		20.0	15.0	45.0		20.0
Change Period (Y+Rc), s	* 6.2	* 6.2		* 9.1	* 6.2	* 6.2		* 9.1
Max Green Setting (Gmax), s	* 8.8	* 39		* 11	* 8.8	* 39		* 11
Max Q Clear Time (g_c+I1), s	9.8	13.7		14.4	3.8	9.9		14.4
Green Ext Time (p_c), s	0.0	6.2		0.0	0.0	6.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	90	38	26	27	26	30	425	66	6	145	13
Future Volume (veh/h)	53	90	38	26	27	26	30	425	66	6	145	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1862	1936	1936	1928	2006	2006	1772	1782	1843	1938	1903	1938
Adj Flow Rate, veh/h	68	123	67	36	36	41	44	545	90	14	191	17
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.78	0.73	0.57	0.72	0.75	0.64	0.68	0.78	0.73	0.42	0.76	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	4	4	4	0	2	2
Cap, veh/h	539	435	237	453	316	360	605	1437	237	399	1660	146
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1316	1180	643	1230	857	976	1112	2911	479	821	3362	297
Grp Volume(v), veh/h	68	0	190	36	0	77	44	316	319	14	102	106
Grp Sat Flow(s),veh/h/ln	1316	0	1823	1230	0	1833	1112	1693	1697	821	1808	1851
Q Serve(g_s), s	2.9	0.0	5.9	1.7	0.0	2.2	1.8	9.3	9.4	0.9	2.4	2.5
Cycle Q Clear(g_c), s	5.1	0.0	5.9	7.6	0.0	2.2	4.2	9.3	9.4	10.2	2.4	2.5
Prop In Lane	1.00		0.35	1.00		0.53	1.00		0.28	1.00		0.16
Lane Grp Cap(c), veh/h	539	0	672	453	0	676	605	836	838	399	893	914
V/C Ratio(X)	0.13	0.00	0.28	0.08	0.00	0.11	0.07	0.38	0.38	0.04	0.11	0.12
Avail Cap(c_a), veh/h	539	0	672	453	0	676	605	836	838	399	893	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	17.8	20.5	0.0	16.6	12.0	12.6	12.6	15.8	10.9	10.9
Incr Delay (d2), s/veh	0.5	0.0	1.1	0.3	0.0	0.3	0.2	1.3	1.3	0.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.2	0.6	0.0	1.2	0.6	4.6	4.6	0.2	1.3	1.3
LnGrp Delay(d),s/veh	18.8	0.0	18.8	20.8	0.0	17.0	12.2	13.9	13.9	16.0	11.1	11.1
LnGrp LOS	B		B	C		B	B	B	B	B	B	B
Approach Vol, veh/h		258			113			679			222	
Approach Delay, s/veh		18.8			18.2			13.8			11.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		39.5		29.5		39.5		29.5
Max Q Clear Time (g_c+I1), s		11.4		7.9		12.2		9.6
Green Ext Time (p_c), s		3.9		1.5		3.9		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	273	47	17	199	22	92	286	24	12	114	49
Future Volume (veh/h)	61	273	47	17	199	22	92	286	24	12	114	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1840	1946	1900	1900	1976	1938	1903	2016	1769	1843	1917
Adj Flow Rate, veh/h	73	369	75	19	269	31	180	447	41	17	170	62
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.74	0.63	0.88	0.74	0.71	0.51	0.64	0.58	0.69	0.67	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	390	540	110	277	609	70	554	759	70	340	570	208
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1077	1484	302	959	1672	193	1190	1718	158	859	1290	470
Grp Volume(v), veh/h	73	0	444	19	0	300	180	0	488	17	0	232
Grp Sat Flow(s),veh/h/ln	1077	0	1786	959	0	1865	1190	0	1875	859	0	1760
Q Serve(g_s), s	3.1	0.0	11.7	1.0	0.0	6.8	6.4	0.0	10.9	0.8	0.0	4.7
Cycle Q Clear(g_c), s	9.9	0.0	11.7	12.7	0.0	6.8	11.1	0.0	10.9	11.8	0.0	4.7
Prop In Lane	1.00		0.17	1.00		0.10	1.00		0.08	1.00		0.27
Lane Grp Cap(c), veh/h	390	0	650	277	0	679	554	0	829	340	0	778
V/C Ratio(X)	0.19	0.00	0.68	0.07	0.00	0.44	0.32	0.00	0.59	0.05	0.00	0.30
Avail Cap(c_a), veh/h	668	0	1110	524	0	1159	554	0	829	340	0	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.1	0.0	15.0	20.3	0.0	13.4	13.5	0.0	11.7	16.2	0.0	10.0
Incr Delay (d2), s/veh	0.2	0.0	1.3	0.1	0.0	0.5	1.6	0.0	3.1	0.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	5.9	0.3	0.0	3.5	2.3	0.0	6.3	0.2	0.0	2.5
LnGrp Delay(d),s/veh	17.4	0.0	16.3	20.4	0.0	13.9	15.1	0.0	14.8	16.4	0.0	11.0
LnGrp LOS	B		B	C		B	B		B	B		B
Approach Vol, veh/h		517			319			668			249	
Approach Delay, s/veh		16.4			14.3			14.9			11.3	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		25.7		30.0		25.7
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		13.1		13.7		13.8		14.7
Green Ext Time (p_c), s		4.2		5.0		4.0		4.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

3/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	583	234	0	385	0	0	142	60
Future Volume (vph)	0	0	0	0	583	234	0	385	0	0	142	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3430	1586		1710			1889	1611
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3430	1586		1710			1889	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.86	0.76	0.92	0.77	0.82	0.92	0.78	0.66
Adj. Flow (vph)	0	0	0	0	678	308	0	500	0	0	182	91
RTOR Reduction (vph)	0	0	0	0	0	149	0	0	0	0	0	54
Lane Group Flow (vph)	0	0	0	0	678	159	0	500	0	0	182	37
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	4%	0%	0%	2%	8%	0%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1504	695		786			774	660
v/s Ratio Prot					c0.20			c0.29			0.10	
v/s Ratio Perm						0.10						0.02
v/c Ratio					0.45	0.23		0.64			0.24	0.06
Uniform Delay, d1					15.7	14.0		16.5			15.4	14.3
Progression Factor					1.00	1.00		0.05			1.00	1.00
Incremental Delay, d2					1.0	0.8		2.9			0.7	0.2
Delay (s)					16.7	14.8		3.6			16.1	14.4
Level of Service					B	B		A			B	B
Approach Delay (s)		0.0			16.1			3.6			15.6	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	502	114	0	0	0	0	385	160	0	142	0
Future Volume (vph)	0	502	114	0	0	0	0	385	160	0	142	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3504	2005					1788	1436		2442	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3504	2005					1788	1436		2442	
Peak-hour factor, PHF	0.92	0.64	0.87	0.92	0.92	0.92	0.92	0.79	0.77	0.92	0.78	0.66
Adj. Flow (vph)	0	784	131	0	0	0	0	487	208	0	182	0
RTOR Reduction (vph)	0	0	74	0	0	0	0	0	62	0	0	0
Lane Group Flow (vph)	0	784	57	0	0	0	0	487	146	0	182	0
Heavy Vehicles (%)	0%	2%	1%	2%	2%	2%	0%	2%	8%	0%	2%	2%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1537	879					704	565		1083	
v/s Ratio Prot		c0.22						c0.27			0.07	
v/s Ratio Perm			0.03						0.10			
v/c Ratio		0.51	0.07					0.69	0.26		0.17	
Uniform Delay, d1		16.2	13.0					20.2	16.4		13.4	
Progression Factor		1.00	1.00					0.63	0.42		0.00	
Incremental Delay, d2		1.2	0.1					5.3	1.1		0.3	
Delay (s)		17.4	13.1					18.0	8.0		0.3	
Level of Service		B	B					B	A		A	
Approach Delay (s)		16.8			0.0			15.0			0.3	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	3.1

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL	NER
Traffic Vol, veh/h	69	74	24	11	0	7	9	14	214	15
Future Vol, veh/h	69	74	24	11	0	7	9	14	214	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	-	-	-	None	-	-	None	-	None
Storage Length	-	0	-	-	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	-5	-	-	-3	-	-	8	-	10	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	80	26	12	0	8	10	15	233	16

Major/Minor	Major2		Minor2			Minor1			Major1	
Conflicting Flow All	249	0	506	501	96	499	508	241	111	0
Stage 1	-	-	246	246	-	247	247	-	-	-
Stage 2	-	-	260	255	-	252	261	-	-	-
Critical Hdwy	4.12	-	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-
Critical Hdwy Stg 1	-	-	5.52	4.92	-	7.72	7.12	-	-	-
Critical Hdwy Stg 2	-	-	5.52	4.92	-	7.72	7.12	-	-	-
Follow-up Hdwy	2.218	-	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-
Pot Cap-1 Maneuver	1317	-	519	513	968	386	373	756	1479	-
Stage 1	-	-	789	732	-	678	629	-	-	-
Stage 2	-	-	778	727	-	672	616	-	-	-
Platoon blocked, %		-								-
Mov Cap-1 Maneuver	1317	-	474	481	968	361	350	756	1479	-
Mov Cap-2 Maneuver	-	-	474	481	-	361	350	-	-	-
Stage 1	-	-	787	687	-	677	628	-	-	-
Stage 2	-	-	749	726	-	620	578	-	-	-

Approach	SB	SE	NW	NE
HCM Control Delay, s	3.2	13.2	13.2	0.1
HCM LOS		B	B	

Minor Lane/Major Mvmt	NEL2	NEL	NER	NWLn1	SELn1	SBL	SBR	SBR2
Capacity (veh/h)	1479	-	-	472	476	1317	-	-
HCM Lane V/C Ratio	0.002	-	-	0.069	0.08	0.057	-	-
HCM Control Delay (s)	7.4	0	-	13.2	13.2	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	750	0	67	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	750	0	67	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	815	0	73	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	408	815	0	815	815	407
Stage 1	-	-	-	0	0	-	815	815	-
Stage 2	-	-	-	408	815	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	571	310	-	315	310	593
Stage 1	-	-	-	-	-	-	396	389	-
Stage 2	-	-	-	640	389	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	571	0	-	315	0	593
Mov Cap-2 Maneuver	-	-	-	571	0	-	315	0	-
Stage 1	-	-	-	-	0	-	396	0	-
Stage 2	-	-	-	640	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	12.2	0
HCM LOS		B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	571	-	-	-	-	-
HCM Lane V/C Ratio	0.128	-	-	-	-	-
HCM Control Delay (s)	12.2	0	0	-	-	0
HCM Lane LOS	B	A	A	-	-	A
HCM 95th %tile Q(veh)	0.4	-	-	-	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	486	0	0	0	0	0	0	0	130	0	0
Future Vol, veh/h	0	486	0	0	0	0	0	0	0	130	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	528	0	0	0	0	0	0	0	141	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	528	528	263	264	528	0
Stage 1	-	-	-	528	528	-	0	0	-
Stage 2	-	-	-	0	0	-	264	528	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	480	454	735	703	454	-
Stage 1	-	-	-	556	526	-	-	-	-
Stage 2	-	-	-	-	-	-	756	526	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	480	0	735	703	0	-
Mov Cap-2 Maneuver	-	-	-	480	0	-	703	0	-
Stage 1	-	-	-	556	0	-	-	0	-
Stage 2	-	-	-	-	0	-	756	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	11.4
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	703	-
HCM Lane V/C Ratio	-	-	-	-	0.201	-
HCM Control Delay (s)	0	0	-	-	11.4	0
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	-	0.7	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	2	13	0	26	4	376	16	9	168	1
Future Vol, veh/h	0	0	2	13	0	26	4	376	16	9	168	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	60	92	48	50	72	35	67	73	25
Heavy Vehicles, %	2	2	2	14	25	2	2	2	11	2	2	2
Mvmt Flow	0	0	8	22	0	54	8	522	46	13	230	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	847	843	232	824	822	545	234	0	0	568	0	0
Stage 1	259	259	-	561	561	-	-	-	-	-	-	-
Stage 2	588	584	-	263	261	-	-	-	-	-	-	-
Critical Hdwy	8.12	7.52	6.72	7.04	6.55	6.12	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	7.12	6.52	-	6.04	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.12	6.52	-	6.04	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.626	4.225	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	223	238	782	292	298	546	1333	-	-	1004	-	-
Stage 1	694	645	-	507	490	-	-	-	-	-	-	-
Stage 2	421	423	-	727	662	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	197	232	782	284	291	546	1333	-	-	1004	-	-
Mov Cap-2 Maneuver	197	232	-	284	291	-	-	-	-	-	-	-
Stage 1	688	635	-	502	486	-	-	-	-	-	-	-
Stage 2	376	419	-	709	652	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	15.1	0.1	0.5
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1333	-	-	782	432	1004	-	-
HCM Lane V/C Ratio	0.006	-	-	0.01	0.176	0.013	-	-
HCM Control Delay (s)	7.7	0	-	9.7	15.1	8.6	0	-
HCM Lane LOS	A	A	-	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	15	27	37	4	26	6	28	354	7	7	148	27
Future Vol, veh/h	15	27	37	4	26	6	28	354	7	7	148	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	65	60	69	50	72	31	69	70	85	85	73	75
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	2	0
Mvmt Flow	23	45	54	8	36	19	41	506	8	8	203	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	856	832	221	878	846	510	239	0	0	514	0	0
Stage 1	237	237	-	591	591	-	-	-	-	-	-	-
Stage 2	619	595	-	287	255	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	308	337	834	284	316	576	1340	-	-	1062	-	-
Stage 1	791	732	-	513	514	-	-	-	-	-	-	-
Stage 2	514	529	-	736	710	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	260	320	834	228	300	576	1340	-	-	1062	-	-
Mov Cap-2 Maneuver	260	320	-	228	300	-	-	-	-	-	-	-
Stage 1	757	725	-	491	492	-	-	-	-	-	-	-
Stage 2	440	506	-	640	704	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.3	18.2	0.6	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1340	-	-	414	336	1062	-	-
HCM Lane V/C Ratio	0.03	-	-	0.294	0.189	0.008	-	-
HCM Control Delay (s)	7.8	0	-	17.3	18.2	8.4	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	0.7	0	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	1	1	114	2	104	1	281	143	83	107	0
Future Vol, veh/h	1	1	1	114	2	104	1	281	143	83	107	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-10	-	-	9	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	3	0	0	0	8	1	2
Mvmt Flow	1	1	1	124	2	113	1	305	155	90	116	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	662	605	116	606	605	305	116	0	0	305	0	0
Stage 1	297	297	-	308	308	-	-	-	-	-	-	-
Stage 2	365	308	-	298	297	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	5.1	4.5	5.23	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	7.1	6.5	-	4.1	3.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	4.1	3.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.327	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	315	350	927	577	580	797	1485	-	-	1222	-	-
Stage 1	659	618	-	838	788	-	-	-	-	-	-	-
Stage 2	595	609	-	844	792	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	254	324	927	542	537	797	1485	-	-	1222	-	-
Mov Cap-2 Maneuver	254	324	-	542	537	-	-	-	-	-	-	-
Stage 1	658	572	-	837	787	-	-	-	-	-	-	-
Stage 2	509	608	-	779	734	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	14	0	3.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1485	-	-	370	639	1222	-	-
HCM Lane V/C Ratio	0.001	-	-	0.009	0.374	0.074	-	-
HCM Control Delay (s)	7.4	0	-	14.8	14	8.2	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	1.7	0.2	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	6	9	13	4	31	27	564	24	62	182	18
Future Vol, veh/h	13	6	9	13	4	31	27	564	24	62	182	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	50	42	40	60	50	64	55	88	66	59	89	57
Heavy Vehicles, %	0	0	0	0	0	0	0	1	5	0	3	0
Mvmt Flow	26	14	23	22	8	48	49	641	36	105	204	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	853	1205	118	1077	1203	339	236	0	0	677	0	0
Stage 1	430	430	-	757	757	-	-	-	-	-	-	-
Stage 2	423	775	-	320	446	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.2	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	222	152	909	198	213	675	1343	-	-	924	-	-
Stage 1	539	546	-	403	455	-	-	-	-	-	-	-
Stage 2	545	361	-	696	607	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	171	124	909	152	174	675	1343	-	-	924	-	-
Mov Cap-2 Maneuver	171	124	-	152	174	-	-	-	-	-	-	-
Stage 1	507	474	-	379	428	-	-	-	-	-	-	-
Stage 2	467	340	-	572	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.5	21.2	0.7	3.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1343	-	-	215	300	924	-	-
HCM Lane V/C Ratio	0.037	-	-	0.292	0.26	0.114	-	-
HCM Control Delay (s)	7.8	0.2	-	28.5	21.2	9.4	0.3	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	1	0.4	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	453	71	175	657	113	92	321	112	119	483	176
Future Volume (veh/h)	122	453	71	175	657	113	92	321	112	119	483	176
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1900	1938
Adj Flow Rate, veh/h	133	492	77	190	714	123	100	349	122	129	525	191
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	1469	229	420	1446	249	251	942	324	350	946	343
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	654	3070	478	839	3021	520	732	2585	890	937	2598	941
Grp Volume(v), veh/h	133	283	286	190	418	419	100	237	234	129	364	352
Grp Sat Flow(s),veh/h/ln	654	1770	1778	839	1770	1771	732	1770	1706	937	1805	1734
Q Serve(g_s), s	12.2	6.9	7.0	12.7	11.3	11.3	8.8	6.9	7.1	8.2	11.2	11.3
Cycle Q Clear(g_c), s	23.5	6.9	7.0	19.7	11.3	11.3	20.2	6.9	7.1	15.3	11.2	11.3
Prop In Lane	1.00		0.27	1.00		0.29	1.00		0.52	1.00		0.54
Lane Grp Cap(c), veh/h	310	847	851	420	847	848	251	645	621	350	658	632
V/C Ratio(X)	0.43	0.33	0.34	0.45	0.49	0.49	0.40	0.37	0.38	0.37	0.55	0.56
Avail Cap(c_a), veh/h	310	847	851	420	847	848	251	645	621	350	658	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	11.3	11.3	17.5	12.5	12.5	25.8	16.3	16.4	22.0	17.7	17.7
Incr Delay (d2), s/veh	4.3	1.1	1.1	3.5	2.1	2.1	4.7	1.6	1.7	3.0	3.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.6	3.7	3.4	5.9	6.0	2.1	3.6	3.6	2.4	6.2	6.0
LnGrp Delay(d),s/veh	24.8	12.4	12.4	21.0	14.5	14.5	30.5	17.9	18.1	25.0	21.1	21.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		702			1027			571			845	
Approach Delay, s/veh		14.7			15.7			20.2			21.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		31.0		39.0		31.0		39.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		25.5		33.5		25.5		33.5
Max Q Clear Time (g_c+I1), s		22.2		25.5		17.3		21.7
Green Ext Time (p_c), s		2.4		5.8		5.0		7.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	24	113	90	77	179	215	80	899	45	72	618	44
Future Volume (veh/h)	24	113	90	77	179	215	80	899	45	72	618	44
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1948	1948	1870	1986	1977	1986	1966	1872	1910	1956	1844	1758
Adj Flow Rate, veh/h	33	118	117	96	213	276	95	917	54	109	679	50
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.72	0.96	0.77	0.80	0.84	0.78	0.84	0.98	0.83	0.66	0.91	0.88
Percent Heavy Veh, %	0	0	0	0	1	1	1	2	0	0	2	7
Cap, veh/h	108	235	233	295	205	265	159	1369	625	158	1349	575
Arrive On Green	0.28	0.26	0.26	0.28	0.26	0.26	0.09	0.38	0.38	0.09	0.38	0.38
Sat Flow, veh/h	945	899	891	1216	783	1015	1873	3557	1623	1863	3504	1494
Grp Volume(v), veh/h	33	0	235	96	0	489	95	917	54	109	679	50
Grp Sat Flow(s),veh/h/ln	945	0	1790	1216	0	1798	1873	1778	1623	1863	1752	1494
Q Serve(g_s), s	1.5	0.0	8.9	5.7	0.0	20.9	3.9	17.1	1.7	4.5	11.8	1.7
Cycle Q Clear(g_c), s	22.4	0.0	8.9	14.6	0.0	20.9	3.9	17.1	1.7	4.5	11.8	1.7
Prop In Lane	1.00		0.50	1.00		0.56	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	108	0	468	295	0	470	159	1369	625	158	1349	575
V/C Ratio(X)	0.31	0.00	0.50	0.33	0.00	1.04	0.60	0.67	0.09	0.69	0.50	0.09
Avail Cap(c_a), veh/h	108	0	468	295	0	470	159	1369	625	158	1349	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	25.1	30.0	0.0	29.6	35.3	20.4	15.6	35.6	18.8	15.7
Incr Delay (d2), s/veh	1.6	0.0	0.9	0.6	0.0	52.6	15.4	2.6	0.3	21.7	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	4.5	2.0	0.0	17.2	2.7	8.8	0.8	3.3	5.9	0.7
LnGrp Delay(d),s/veh	41.2	0.0	26.0	30.7	0.0	82.2	50.7	23.0	15.9	57.3	20.1	16.0
LnGrp LOS	D		C	C		F	D	C	B	E	C	B
Approach Vol, veh/h		268			585			1066			838	
Approach Delay, s/veh		27.9			73.7			25.1			24.7	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	37.0		30.0	13.0	37.0		30.0
Change Period (Y+Rc), s	* 6.2	* 6.2		* 9.1	* 6.2	* 6.2		* 9.1
Max Green Setting (Gmax), s	* 6.8	* 31		* 21	* 6.8	* 31		* 21
Max Q Clear Time (g_c+I1), s	5.9	13.8		24.4	6.5	19.1		22.9
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	5.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	61	21	71	89	19	38	262	44	38	520	71
Future Volume (veh/h)	43	61	21	71	89	19	38	262	44	38	520	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1808	1936	1936	1928	2006	2006	1843	1768	1843	1938	1938	1938
Adj Flow Rate, veh/h	73	73	27	106	124	40	45	312	54	40	591	83
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.59	0.83	0.79	0.67	0.72	0.47	0.85	0.84	0.81	0.94	0.88	0.86
Percent Heavy Veh, %	3	0	0	0	0	0	0	5	5	0	0	0
Cap, veh/h	481	511	189	561	550	178	362	1332	228	522	1506	211
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1181	1349	499	1335	1454	469	753	2869	491	1053	3244	455
Grp Volume(v), veh/h	73	0	100	106	0	164	45	181	185	40	335	339
Grp Sat Flow(s),veh/h/ln	1181	0	1848	1335	0	1923	753	1679	1681	1053	1841	1858
Q Serve(g_s), s	3.1	0.0	2.5	4.0	0.0	4.1	2.9	4.5	4.6	1.7	8.3	8.4
Cycle Q Clear(g_c), s	7.2	0.0	2.5	6.5	0.0	4.1	11.3	4.5	4.6	6.3	8.3	8.4
Prop In Lane	1.00		0.27	1.00		0.24	1.00		0.29	1.00		0.24
Lane Grp Cap(c), veh/h	481	0	700	561	0	728	362	780	780	522	855	863
V/C Ratio(X)	0.15	0.00	0.14	0.19	0.00	0.23	0.12	0.23	0.24	0.08	0.39	0.39
Avail Cap(c_a), veh/h	481	0	700	561	0	728	362	780	780	522	855	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	14.3	16.4	0.0	14.8	16.0	11.3	11.3	13.2	12.3	12.3
Incr Delay (d2), s/veh	0.7	0.0	0.4	0.7	0.0	0.7	0.7	0.7	0.7	0.3	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.3	1.6	0.0	2.3	0.7	2.2	2.3	0.5	4.5	4.6
LnGrp Delay(d),s/veh	17.9	0.0	14.7	17.2	0.0	15.5	16.7	12.0	12.0	13.5	13.6	13.6
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		173			270			411			714	
Approach Delay, s/veh		16.1			16.1			12.5			13.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.0		32.0		38.0		32.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		32.5		26.5		32.5		26.5
Max Q Clear Time (g_c+I1), s		13.3		9.2		10.4		8.5
Green Ext Time (p_c), s		4.8		1.8		5.0		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	418	100	27	440	26	62	134	39	37	212	105
Future Volume (veh/h)	85	418	100	27	440	26	62	134	39	37	212	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1872	1946	1900	1900	1976	1938	1910	2016	1769	1843	1917
Adj Flow Rate, veh/h	96	449	120	31	518	36	85	170	60	45	265	113
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.89	0.93	0.83	0.88	0.85	0.72	0.73	0.79	0.65	0.83	0.80	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	304	646	173	284	797	55	328	512	181	427	466	199
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	854	1423	380	855	1756	122	1041	1349	476	1088	1227	523
Grp Volume(v), veh/h	96	0	569	31	0	554	85	0	230	45	0	378
Grp Sat Flow(s),veh/h/ln	854	0	1803	855	0	1878	1041	0	1826	1088	0	1751
Q Serve(g_s), s	6.4	0.0	16.3	1.9	0.0	14.8	4.6	0.0	5.8	2.0	0.0	11.1
Cycle Q Clear(g_c), s	21.2	0.0	16.3	18.3	0.0	14.8	15.6	0.0	5.8	7.8	0.0	11.1
Prop In Lane	1.00		0.21	1.00		0.06	1.00		0.26	1.00		0.30
Lane Grp Cap(c), veh/h	304	0	818	284	0	852	328	0	693	427	0	664
V/C Ratio(X)	0.32	0.00	0.70	0.11	0.00	0.65	0.26	0.00	0.33	0.11	0.00	0.57
Avail Cap(c_a), veh/h	372	0	962	352	0	1002	328	0	693	427	0	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	14.1	21.4	0.0	13.7	22.1	0.0	14.3	17.0	0.0	15.9
Incr Delay (d2), s/veh	0.6	0.0	1.8	0.2	0.0	1.2	1.9	0.0	1.3	0.5	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	8.5	0.5	0.0	7.8	1.5	0.0	3.1	0.7	0.0	6.0
LnGrp Delay(d),s/veh	22.5	0.0	15.9	21.6	0.0	14.9	24.0	0.0	15.6	17.5	0.0	19.4
LnGrp LOS	C		B	C		B	C		B	B		B
Approach Vol, veh/h		665			585			315			423	
Approach Delay, s/veh		16.9			15.2			17.8			19.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		34.8		30.0		34.8
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		17.6		23.2		13.1		20.3
Green Ext Time (p_c), s		2.5		6.0		3.5		6.9

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

3/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	941	157	0	338	0	0	466	277
Future Volume (vph)	0	0	0	0	941	157	0	338	0	0	466	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3497	1555		1710			1927	1644
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3497	1555		1710			1927	1644
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.91	0.74	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	0	0	0	1034	212	0	422	0	0	507	326
RTOR Reduction (vph)	0	0	0	0	0	119	0	0	0	0	0	27
Lane Group Flow (vph)	0	0	0	0	1034	93	0	423	0	0	507	299
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1534	682		786			790	674
v/s Ratio Prot					c0.30			0.25			c0.26	
v/s Ratio Perm						0.06						0.18
v/c Ratio					0.67	0.14		0.54			0.64	0.44
Uniform Delay, d1					17.9	13.4		15.5			18.9	17.0
Progression Factor					1.00	1.00		0.02			1.00	1.00
Incremental Delay, d2					2.4	0.4		2.1			4.0	2.1
Delay (s)					20.3	13.8		2.5			22.9	19.1
Level of Service					C	B		A			C	B
Approach Delay (s)		0.0			19.2			2.5			21.4	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1018	416	0	0	0	0	338	247	0	466	0
Future Volume (vph)	0	1018	416	0	0	0	0	338	247	0	466	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2025					1788	1505		2491	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2025					1788	1505		2491	
Peak-hour factor, PHF	0.92	0.95	0.91	0.92	0.92	0.92	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	1072	457	0	0	0	0	422	284	0	507	0
RTOR Reduction (vph)	0	0	138	0	0	0	0	0	28	0	0	0
Lane Group Flow (vph)	0	1072	319	0	0	0	0	423	256	0	507	0
Heavy Vehicles (%)	0%	1%	0%	2%	2%	2%	0%	2%	3%	0%	0%	0%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1552	888					704	592		1105	
v/s Ratio Prot		c0.30						c0.24			0.20	
v/s Ratio Perm			0.16						0.17			
v/c Ratio		0.69	0.36					0.60	0.43		0.46	
Uniform Delay, d1		18.1	15.0					19.3	17.7		15.5	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		2.5	1.1					3.8	2.3		1.0	
Delay (s)		20.6	16.1					23.0	20.0		1.0	
Level of Service		C	B					C	C		A	
Approach Delay (s)		19.3			0.0			21.8			1.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	5.3

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL	NER
Traffic Vol, veh/h	63	196	33	9	3	19	8	64	130	22
Future Vol, veh/h	63	196	33	9	3	19	8	64	130	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	20
Sign Control	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	-	-	-	None	-	-	None	-	None
Storage Length	-	0	-	-	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	-4	-	-	4	-	-	-3	-	6	-
Peak Hour Factor	94	88	59	83	79	67	72	47	84	81
Heavy Vehicles, %	0	0	3	0	0	0	0	0	5	0
Mvmt Flow	67	223	56	11	4	28	11	136	155	27

Major/Minor	Major2		Minor2			Minor1			Major1	
Conflicting Flow All	182	0	622	562	350	557	571	168	266	0
Stage 1	-	-	378	378	-	171	171	-	-	-
Stage 2	-	-	244	184	-	386	400	-	-	-
Critical Hdwy	4.1	-	7.93	7.3	6.6	6.5	5.9	5.9	4.1	-
Critical Hdwy Stg 1	-	-	6.93	6.3	-	5.5	4.9	-	-	-
Critical Hdwy Stg 2	-	-	6.93	6.3	-	5.5	4.9	-	-	-
Follow-up Hdwy	2.2	-	3.527	4	3.3	3.5	4	3.3	2.2	-
Pot Cap-1 Maneuver	1405	-	346	387	671	487	477	894	1310	-
Stage 1	-	-	590	569	-	860	783	-	-	-
Stage 2	-	-	717	721	-	684	647	-	-	-
Platoon blocked, %		-								-
Mov Cap-1 Maneuver	1405	-	275	365	617	416	450	894	1204	-
Mov Cap-2 Maneuver	-	-	275	365	-	416	450	-	-	-
Stage 1	-	-	589	537	-	859	782	-	-	-
Stage 2	-	-	599	720	-	578	611	-	-	-

Approach	SB	SE	NW	NE
HCM Control Delay, s	1.5	21	11.7	0.1
HCM LOS		C	B	

Minor Lane/Major Mvmt	NEL2	NEL	NER	NWLn1	SELn1	SBL	SBR	SBR2
Capacity (veh/h)	1204	-	-	716	295	1405	-	-
HCM Lane V/C Ratio	0.001	-	-	0.245	0.239	0.048	-	-
HCM Control Delay (s)	8	0	-	11.7	21	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1	0.9	0.1	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	857	0	241	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	857	0	241	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	932	0	262	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	466	932	0	932	932	465
Stage 1	-	-	-	0	0	-	932	932	-
Stage 2	-	-	-	466	932	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	525	265	-	265	265	544
Stage 1	-	-	-	-	-	-	344	343	-
Stage 2	-	-	-	598	343	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	525	0	-	265	0	544
Mov Cap-2 Maneuver	-	-	-	525	0	-	265	0	-
Stage 1	-	-	-	-	0	-	344	0	-
Stage 2	-	-	-	598	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	18.5	0
HCM LOS		C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	525	-	-	-	-	-
HCM Lane V/C Ratio	0.499	-	-	-	-	-
HCM Control Delay (s)	18.5	0	0	-	-	0
HCM Lane LOS	C	A	A	-	-	A
HCM 95th %tile Q(veh)	2.8	-	-	-	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1306	0	0	0	0	0	0	0	128	0	0
Future Vol, veh/h	0	1306	0	0	0	0	0	0	0	128	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1420	0	0	0	0	0	0	0	139	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	1420	1420	709	710	1420	0
Stage 1	-	-	-	1420	1420	-	0	0	-
Stage 2	-	-	-	0	0	-	710	1420	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	127	135	377	368	135	-
Stage 1	-	-	-	189	201	-	-	-	-
Stage 2	-	-	-	-	-	-	448	201	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	127	0	377	368	0	-
Mov Cap-2 Maneuver	-	-	-	127	0	-	368	0	-
Stage 1	-	-	-	189	0	-	-	0	-
Stage 2	-	-	-	-	0	-	448	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	20.6
HCM LOS		A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	368	-
HCM Lane V/C Ratio	-	-	-	-	0.378	-
HCM Control Delay (s)	0	0	-	-	20.6	0
HCM Lane LOS	A	A	-	-	C	A
HCM 95th %tile Q(veh)	-	-	-	-	1.7	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1	1	58	1	34	1	201	8	11	327	1
Future Vol, veh/h	0	1	1	58	1	34	1	201	8	11	327	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	41	25	75	25	79	44	50	79	25
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	0	1	4	141	4	45	4	254	18	22	414	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	756	741	416	734	734	264	418	0	0	273	0	0
Stage 1	460	460	-	272	272	-	-	-	-	-	-	-
Stage 2	296	281	-	462	462	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	265	282	605	352	364	785	1152	-	-	1302	-	-
Stage 1	515	501	-	750	699	-	-	-	-	-	-	-
Stage 2	660	631	-	599	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	243	275	605	342	355	785	1152	-	-	1302	-	-
Mov Cap-2 Maneuver	243	275	-	342	355	-	-	-	-	-	-	-
Stage 1	513	490	-	747	696	-	-	-	-	-	-	-
Stage 2	616	628	-	581	570	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	22.3	0.1	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1152	-	-	482	395	1302	-	-
HCM Lane V/C Ratio	0.003	-	-	0.011	0.483	0.017	-	-
HCM Control Delay (s)	8.1	0	-	12.5	22.3	7.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	2.5	0.1	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	41	53	17	28	13	16	185	2	18	336	20
Future Vol, veh/h	13	41	53	17	28	13	16	185	2	18	336	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	60	62	69	63	69	60	58	83	50	37	71	56
Heavy Vehicles, %	8	0	0	0	0	0	7	1	0	0	0	0
Mvmt Flow	22	66	77	27	41	22	28	223	4	49	473	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	899	870	491	940	886	225	509	0	0	227	0	0
Stage 1	588	588	-	280	280	-	-	-	-	-	-	-
Stage 2	311	282	-	660	606	-	-	-	-	-	-	-
Critical Hdwy	6.78	6.1	6	6.9	6.3	6.1	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4	3.3	3.5	4	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	280	321	598	259	300	825	1031	-	-	1353	-	-
Stage 1	518	533	-	743	693	-	-	-	-	-	-	-
Stage 2	711	703	-	472	507	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	295	598	176	276	825	1031	-	-	1353	-	-
Mov Cap-2 Maneuver	227	295	-	176	276	-	-	-	-	-	-	-
Stage 1	502	506	-	720	672	-	-	-	-	-	-	-
Stage 2	630	681	-	339	481	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.5	24.5	0.9	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1031	-	-	367	273	1353	-	-
HCM Lane V/C Ratio	0.027	-	-	0.449	0.327	0.036	-	-
HCM Control Delay (s)	8.6	0	-	22.5	24.5	7.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.2	1.4	0.1	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	2	2	180	0	62	3	148	87	101	289	1
Future Vol, veh/h	0	2	2	180	0	62	3	148	87	101	289	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-10	-	-	9	-	-	-1	-
Peak Hour Factor	92	50	50	88	92	96	75	93	83	89	71	25
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	0	0
Mvmt Flow	0	4	4	205	0	65	4	159	105	113	407	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	835	803	409	807	805	159	411	0	0	159	0	0
Stage 1	636	636	-	167	167	-	-	-	-	-	-	-
Stage 2	199	167	-	640	638	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	5.1	4.5	5.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	4.1	3.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	4.1	3.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	229	255	611	473	498	932	1159	-	-	1433	-	-
Stage 1	393	398	-	921	838	-	-	-	-	-	-	-
Stage 2	764	729	-	667	676	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	200	234	611	435	457	932	1159	-	-	1433	-	-
Mov Cap-2 Maneuver	200	234	-	435	457	-	-	-	-	-	-	-
Stage 1	391	367	-	917	835	-	-	-	-	-	-	-
Stage 2	708	726	-	604	623	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.9	20.3	0.1	1.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1159	-	-	338	499	1433	-	-
HCM Lane V/C Ratio	0.003	-	-	0.024	0.539	0.079	-	-
HCM Control Delay (s)	8.1	0	-	15.9	20.3	7.7	-	-
HCM Lane LOS	A	A	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3.2	0.3	-	-

Intersection	
Int Delay, s/veh	36

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	35	16	137	31	11	61	34	436	8	66	575	86
Future Vol, veh/h	35	16	137	31	11	61	34	436	8	66	575	86
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	86	50	67	86	63	78	68	89	58	97	84	86
Heavy Vehicles, %	0	0	1	0	0	0	0	2	14	0	0	0
Mvmt Flow	41	32	204	36	17	78	50	490	14	68	685	100

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1225	1475	392	1091	1518	252	785	0	0	504	0	0
Stage 1	871	871	-	597	597	-	-	-	-	-	-	-
Stage 2	354	604	-	494	921	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.22	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.31	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	112	100	590	194	142	764	843	-	-	1071	-	-
Stage 1	274	321	-	493	529	-	-	-	-	-	-	-
Stage 2	605	444	-	561	390	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	76	81	590	76	115	764	843	-	-	1071	-	-
Mov Cap-2 Maneuver	76	81	-	76	115	-	-	-	-	-	-	-
Stage 1	251	284	-	452	485	-	-	-	-	-	-	-
Stage 2	480	407	-	288	345	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	199.9	64.9	1.1	1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	843	-	-	217	181	1071	-	-
HCM Lane V/C Ratio	0.059	-	-	1.277	0.728	0.064	-	-
HCM Control Delay (s)	9.5	0.3	-	199.9	64.9	8.6	0.4	-
HCM Lane LOS	A	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	14.6	4.6	0.2	-	-

YEAR 2038 NO BUILD CONDITIONS
CAPACITY ANALYSIS RESULTS

US-41/Front St-2038 No Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 No Build\2038 No Build (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2038 No Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 72

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	159	0	93	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	161	0	386	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	832	497	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	159	93	832	0	1344	1436	0.1221	0.0656	4.07	0.65	2.81	0.15	0.00	0.41	0.00	A	A	A
2	EB US 41	Free	161	386	159	0	1728	1444	0.0950	0.2707	3.09	2.34	2.56	0.11	0.00	0.30	0.00	A	A	A
3	NB US 41/Front ...	None	1329		161		2022		0.6777		11.66		11.66	3.81		9.08		B		B
All	Intersection												8.27							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Front St-2038 No Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 No Build\2038 No Build (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2038 No Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 74

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	529	0	253	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	213	0	1244	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	653	375	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	529	253	653	0	1465	1436	0.3718	0.1784	6.35	1.77	4.87	0.67	0.00	1.74	0.00	A	A	A
2	EB US 41	Free	213	1244	529	0	1096	1348	0.1999	0.9461	5.72	10.61	9.89	0.28	6.90	0.72	15.50	A	B	A
3	NB US 41/Front ...	None	1028		213		1984		0.5320		8.92		8.92	1.99		4.97		A		A
All	Intersection												8.38							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

HCM 2010 Signalized Intersection Summary
1: McCLELLAN AVE & GROVE ST

3/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	90	38	33	27	26	30	464	82	6	162	13
Future Volume (veh/h)	53	90	38	33	27	26	30	464	82	6	162	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1862	1862	1862	1928	1928	1928	1843	1740	1843	1938	1903	1938
Adj Flow Rate, veh/h	68	123	67	46	36	41	44	595	112	14	213	17
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.78	0.73	0.57	0.72	0.75	0.64	0.68	0.78	0.73	0.42	0.76	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	7	7	0	2	2
Cap, veh/h	520	404	220	432	294	334	626	1407	264	375	1718	136
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1316	1135	618	1230	824	939	1134	2780	522	768	3394	269
Grp Volume(v), veh/h	68	0	190	46	0	77	44	353	354	14	113	117
Grp Sat Flow(s),veh/h/ln	1316	0	1753	1230	0	1763	1134	1653	1648	768	1808	1855
Q Serve(g_s), s	2.9	0.0	6.3	2.2	0.0	2.4	1.7	10.7	10.8	0.9	2.6	2.7
Cycle Q Clear(g_c), s	5.3	0.0	6.3	8.5	0.0	2.4	4.4	10.7	10.8	11.7	2.6	2.7
Prop In Lane	1.00		0.35	1.00		0.53	1.00		0.32	1.00		0.14
Lane Grp Cap(c), veh/h	520	0	624	432	0	628	626	837	834	375	915	939
V/C Ratio(X)	0.13	0.00	0.30	0.11	0.00	0.12	0.07	0.42	0.42	0.04	0.12	0.12
Avail Cap(c_a), veh/h	520	0	624	432	0	628	626	837	834	375	915	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	18.6	21.7	0.0	17.3	11.6	12.4	12.4	16.1	10.4	10.4
Incr Delay (d2), s/veh	0.5	0.0	1.3	0.5	0.0	0.4	0.2	1.6	1.6	0.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.2	0.8	0.0	1.2	0.6	5.2	5.3	0.2	1.4	1.4
LnGrp Delay(d),s/veh	19.6	0.0	19.8	22.2	0.0	17.7	11.8	14.0	14.0	16.3	10.7	10.7
LnGrp LOS	B		B	C		B	B	B	B	B	B	B
Approach Vol, veh/h		258			123			751			244	
Approach Delay, s/veh		19.8			19.4			13.8			11.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		46.0		34.0		46.0		34.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		40.5		28.5		40.5		28.5
Max Q Clear Time (g_c+I1), s		12.8		8.3		13.7		10.5
Green Ext Time (p_c), s		6.6		1.8		6.5		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	397	37	63	263	43	56	440	124	64	189	64
Future Volume (veh/h)	99	397	37	63	263	43	56	440	124	64	189	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1820	1938
Adj Flow Rate, veh/h	108	432	40	68	286	47	61	478	135	70	205	70
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	8	8
Cap, veh/h	519	1496	138	446	1392	226	448	1013	284	297	947	314
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1043	3277	302	918	3050	495	1100	2731	766	822	2553	847
Grp Volume(v), veh/h	108	232	240	68	165	168	61	309	304	70	137	138
Grp Sat Flow(s),veh/h/ln	1043	1770	1809	918	1770	1775	1100	1770	1728	822	1729	1671
Q Serve(g_s), s	4.9	5.8	5.8	3.5	3.9	4.0	2.8	9.3	9.4	5.0	3.8	4.0
Cycle Q Clear(g_c), s	8.9	5.8	5.8	9.3	3.9	4.0	6.8	9.3	9.4	14.4	3.8	4.0
Prop In Lane	1.00		0.17	1.00		0.28	1.00		0.44	1.00		0.51
Lane Grp Cap(c), veh/h	519	808	826	446	808	810	448	656	641	297	641	620
V/C Ratio(X)	0.21	0.29	0.29	0.15	0.20	0.21	0.14	0.47	0.47	0.24	0.21	0.22
Avail Cap(c_a), veh/h	519	808	826	446	808	810	448	656	641	297	641	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	11.9	11.9	14.9	11.4	11.4	17.5	16.8	16.8	22.3	15.1	15.1
Incr Delay (d2), s/veh	0.9	0.9	0.9	0.7	0.6	0.6	0.6	2.4	2.5	1.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.0	3.1	1.0	2.0	2.0	0.9	5.0	4.9	1.3	1.9	1.9
LnGrp Delay(d),s/veh	15.0	12.8	12.8	15.6	12.0	12.0	18.1	19.2	19.4	24.2	15.8	16.0
LnGrp LOS	B	B	B	B	B	B	B	B	B	C	B	B
Approach Vol, veh/h		580			401			674			345	
Approach Delay, s/veh		13.2			12.6			19.2			17.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.0		38.1		32.0		38.1
Change Period (Y+Rc), s		* 6		* 6.1		* 6		* 6.1
Max Green Setting (Gmax), s		* 26		* 32		* 26		* 32
Max Q Clear Time (g_c+I1), s		11.4		10.9		16.4		11.3
Green Ext Time (p_c), s		5.3		5.7		4.1		5.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	22	207	39	100	78	168	202	409	61	39	600	286
Future Volume (veh/h)	22	207	39	100	78	168	202	409	61	39	600	286
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1852	1852	1852	1728	1814	1814	1966	1800	1890	1996	1845	1919
Adj Flow Rate, veh/h	32	249	44	127	89	195	301	553	77	46	759	392
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.83	0.89	0.79	0.88	0.86	0.67	0.74	0.79	0.85	0.79	0.73
Percent Heavy Veh, %	0	0	0	5	0	0	0	5	0	0	4	0
Cap, veh/h	110	209	37	109	69	151	206	1899	892	76	1700	791
Arrive On Green	0.16	0.14	0.14	0.16	0.14	0.14	0.11	0.55	0.55	0.04	0.49	0.49
Sat Flow, veh/h	1085	1534	271	1004	507	1111	1872	3421	1607	1901	3506	1631
Grp Volume(v), veh/h	32	0	293	127	0	284	301	553	77	46	759	392
Grp Sat Flow(s),veh/h/ln	1085	0	1805	1004	0	1618	1872	1710	1607	1901	1753	1631
Q Serve(g_s), s	1.5	0.0	10.9	1.5	0.0	10.9	8.8	6.9	1.8	1.9	11.4	13.0
Cycle Q Clear(g_c), s	12.4	0.0	10.9	12.4	0.0	10.9	8.8	6.9	1.8	1.9	11.4	13.0
Prop In Lane	1.00		0.15	1.00		0.69	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	0	246	109	0	221	206	1899	892	76	1700	791
V/C Ratio(X)	0.29	0.00	1.19	1.17	0.00	1.29	1.46	0.29	0.09	0.60	0.45	0.50
Avail Cap(c_a), veh/h	110	0	246	109	0	221	206	1899	892	209	1700	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	34.6	39.9	0.0	34.6	35.6	9.4	8.3	37.8	13.5	14.0
Incr Delay (d2), s/veh	1.4	0.0	119.2	138.1	0.0	159.3	232.3	0.4	0.2	7.5	0.9	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	13.5	6.6	0.0	14.6	17.8	3.3	0.8	1.2	5.7	6.3
LnGrp Delay(d),s/veh	41.0	0.0	153.7	178.0	0.0	193.8	267.9	9.8	8.5	45.3	14.4	16.2
LnGrp LOS	D		F	F		F	F	A	A	D	B	B
Approach Vol, veh/h		325			411			931			1197	
Approach Delay, s/veh		142.6			188.9			93.2			16.2	
Approach LOS		F			F			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	45.0		20.0	9.4	50.6		20.0
Change Period (Y+Rc), s	* 6.2	* 6.2		* 9.1	* 6.2	* 6.2		* 9.1
Max Green Setting (Gmax), s	* 8.8	* 39		* 11	* 8.8	* 39		* 11
Max Q Clear Time (g_c+I1), s	10.8	15.0		14.4	3.9	8.9		14.4
Green Ext Time (p_c), s	0.0	7.4		0.0	0.0	7.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	80.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	280	45	16	238	22	92	280	22	12	192	49
Future Volume (veh/h)	61	280	45	16	238	22	92	280	22	12	192	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1835	1835	1946	1863	1863	1976	1900	1900	2016	1735	1807	1917
Adj Flow Rate, veh/h	73	378	71	18	322	31	180	438	38	17	287	62
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.74	0.63	0.88	0.74	0.71	0.51	0.64	0.58	0.69	0.67	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	350	557	105	277	620	60	440	754	65	337	630	136
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1007	1502	282	936	1673	161	1048	1724	150	852	1441	311
Grp Volume(v), veh/h	73	0	449	18	0	353	180	0	476	17	0	349
Grp Sat Flow(s),veh/h/ln	1007	0	1784	936	0	1834	1048	0	1874	852	0	1752
Q Serve(g_s), s	3.4	0.0	11.9	0.9	0.0	8.4	8.2	0.0	10.8	0.9	0.0	7.9
Cycle Q Clear(g_c), s	11.9	0.0	11.9	12.8	0.0	8.4	16.1	0.0	10.8	11.6	0.0	7.9
Prop In Lane	1.00		0.16	1.00		0.09	1.00		0.08	1.00		0.18
Lane Grp Cap(c), veh/h	350	0	661	277	0	680	440	0	819	337	0	766
V/C Ratio(X)	0.21	0.00	0.68	0.07	0.00	0.52	0.41	0.00	0.58	0.05	0.00	0.46
Avail Cap(c_a), veh/h	596	0	1097	506	0	1128	440	0	819	337	0	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	14.9	20.3	0.0	13.8	16.8	0.0	11.9	16.3	0.0	11.1
Incr Delay (d2), s/veh	0.3	0.0	1.2	0.1	0.0	0.6	2.8	0.0	3.0	0.3	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	6.0	0.2	0.0	4.3	2.7	0.0	6.2	0.2	0.0	4.2
LnGrp Delay(d),s/veh	18.7	0.0	16.1	20.4	0.0	14.4	19.6	0.0	14.9	16.6	0.0	13.1
LnGrp LOS	B		B	C		B	B		B	B		B
Approach Vol, veh/h		522			371			656			366	
Approach Delay, s/veh		16.5			14.7			16.2			13.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		26.2		30.0		26.2
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		18.1		13.9		13.6		14.8
Green Ext Time (p_c), s		3.3		5.5		4.6		5.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

3/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	623	365	0	388	0	0	159	147
Future Volume (vph)	0	0	0	0	623	365	0	388	0	0	159	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3430	1586		1710			1889	1611
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3430	1586		1710			1889	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.86	0.76	0.92	0.77	0.82	0.92	0.78	0.66
Adj. Flow (vph)	0	0	0	0	724	480	0	504	0	0	204	223
RTOR Reduction (vph)	0	0	0	0	0	147	0	0	0	0	0	73
Lane Group Flow (vph)	0	0	0	0	724	333	0	504	0	0	204	150
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	4%	0%	0%	2%	8%	0%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1504	695		786			774	660
v/s Ratio Prot					c0.21			c0.29			0.11	
v/s Ratio Perm						0.21						0.09
v/c Ratio					0.48	0.48		0.64			0.26	0.23
Uniform Delay, d1					16.0	16.0		16.5			15.6	15.4
Progression Factor					1.00	1.00		0.01			1.00	1.00
Incremental Delay, d2					1.1	2.4		2.5			0.8	0.8
Delay (s)					17.1	18.3		2.7			16.4	16.2
Level of Service					B	B		A			B	B
Approach Delay (s)		0.0			17.6			2.7			16.3	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	709	114	0	0	0	0	424	160	0	145	0
Future Volume (vph)	0	709	114	0	0	0	0	424	160	0	145	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3504	2005					1788	1436		2442	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3504	2005					1788	1436		2442	
Peak-hour factor, PHF	0.92	0.64	0.87	0.92	0.92	0.92	0.92	0.79	0.77	0.92	0.78	0.66
Adj. Flow (vph)	0	1108	131	0	0	0	0	537	208	0	186	0
RTOR Reduction (vph)	0	0	74	0	0	0	0	0	28	0	0	0
Lane Group Flow (vph)	0	1108	57	0	0	0	0	537	180	0	186	0
Heavy Vehicles (%)	0%	2%	1%	2%	2%	2%	0%	2%	8%	0%	2%	2%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1537	879					704	565		1083	
v/s Ratio Prot		c0.32						c0.30			0.08	
v/s Ratio Perm			0.03						0.13			
v/c Ratio		0.72	0.07					0.76	0.32		0.17	
Uniform Delay, d1		18.4	13.0					21.0	16.8		13.4	
Progression Factor		1.00	1.00					0.64	0.49		0.00	
Incremental Delay, d2		3.0	0.1					7.3	1.4		0.3	
Delay (s)		21.4	13.1					20.8	9.7		0.3	
Level of Service		C	B					C	A		A	
Approach Delay (s)		20.5			0.0			17.7			0.3	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	265	388	77	7	7
Future Vol, veh/h	0	265	388	77	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	1	-	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	288	422	84	8	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	505	0	-	0	752	464
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	288	-
Critical Hdwy	4.12	-	-	-	6.82	6.42
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1060	-	-	-	348	583
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	737	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1060	-	-	-	348	583
Mov Cap-2 Maneuver	-	-	-	-	348	-
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	737	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1060	-	-	-	348	583
HCM Lane V/C Ratio	-	-	-	-	0.022	0.013
HCM Control Delay (s)	0	-	-	-	15.6	11.3
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	115	199	88	307	67	7
Future Vol, veh/h	115	199	88	307	67	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	2	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	125	216	96	334	73	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	429	0	-	0	729	263
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	466	-
Critical Hdwy	4.12	-	-	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1130	-	-	-	345	759
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	584	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1130	-	-	-	302	759
Mov Cap-2 Maneuver	-	-	-	-	302	-
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	510	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	20
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1130	-	-	-	320
HCM Lane V/C Ratio	0.111	-	-	-	0.251
HCM Control Delay (s)	8.6	0	-	-	20
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	77	194	95	0	120	107
Future Vol, veh/h	77	194	95	0	120	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	211	103	0	130	116

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	103	0	-	0	481	103
Stage 1	-	-	-	-	103	-
Stage 2	-	-	-	-	378	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1489	-	-	-	574	957
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	722	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1489	-	-	-	537	957
Mov Cap-2 Maneuver	-	-	-	-	537	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	676	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1489	-	-	-	537	957
HCM Lane V/C Ratio	0.056	-	-	-	0.243	0.122
HCM Control Delay (s)	7.6	0	-	-	13.8	9.3
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	0.4

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	790	0	198	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	790	0	198	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	859	0	215	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	429	859	0	859	859	428
Stage 1	-	-	-	0	0	-	859	859	-
Stage 2	-	-	-	429	859	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	554	292	-	296	292	575
Stage 1	-	-	-	-	-	-	375	371	-
Stage 2	-	-	-	624	371	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	554	0	-	296	0	575
Mov Cap-2 Maneuver	-	-	-	554	0	-	296	0	-
Stage 1	-	-	-	-	0	-	375	0	-
Stage 2	-	-	-	624	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	15.6	0
HCM LOS		C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	554	-	-	-	-	-
HCM Lane V/C Ratio	0.388	-	-	-	-	-
HCM Control Delay (s)	15.6	0	0	-	-	0
HCM Lane LOS	C	A	A	-	-	A
HCM 95th %tile Q(veh)	1.8	-	-	-	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Traffic Vol, veh/h	3	231	15	62	91	25	25	11	0	7	9	14
Future Vol, veh/h	3	231	15	62	91	25	25	11	0	7	9	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	10	-	-	-5	-	-	-3	-	-	8	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	251	16	67	99	27	27	12	0	8	10	15

Major/Minor	Major1			Major2			Minor2			Minor1		
Conflicting Flow All	126	0	0	267	0	0	525	521	112	519	527	259
Stage 1	-	-	-	-	-	-	247	247	-	266	266	-
Stage 2	-	-	-	-	-	-	278	274	-	253	261	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.52	5.92	5.92	8.72	8.12	7.02
Critical Hdwy Stg 1	-	-	-	-	-	-	5.52	4.92	-	7.72	7.12	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.52	4.92	-	7.72	7.12	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1460	-	-	1297	-	-	505	502	950	371	361	736
Stage 1	-	-	-	-	-	-	789	731	-	657	612	-
Stage 2	-	-	-	-	-	-	763	715	-	671	616	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1460	-	-	1297	-	-	462	473	950	348	340	736
Mov Cap-2 Maneuver	-	-	-	-	-	-	462	473	-	348	340	-
Stage 1	-	-	-	-	-	-	787	690	-	656	611	-
Stage 2	-	-	-	-	-	-	734	714	-	622	582	-

Approach	NB	SB	SE	NW
HCM Control Delay, s	0.1	2.8	13.5	13.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBL	NBT	NBR	NWLn1	SELn1	SBL	SBT	SBR
Capacity (veh/h)	1460	-	-	457	465	1297	-	-
HCM Lane V/C Ratio	0.002	-	-	0.071	0.084	0.052	-	-
HCM Control Delay (s)	7.5	0	-	13.5	13.5	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	693	0	0	0	0	0	0	0	130	0	0
Future Vol, veh/h	0	693	0	0	0	0	0	0	0	130	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	753	0	0	0	0	0	0	0	141	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	753	753	376	377	753	0
Stage 1	-	-	-	753	753	-	0	0	-
Stage 2	-	-	-	0	0	-	377	753	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	346	337	622	597	337	-
Stage 1	-	-	-	426	416	-	-	-	-
Stage 2	-	-	-	-	-	-	663	416	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	346	0	622	597	0	-
Mov Cap-2 Maneuver	-	-	-	346	0	-	597	0	-
Stage 1	-	-	-	426	0	-	-	0	-
Stage 2	-	-	-	-	0	-	663	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	12.9
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	597	-
HCM Lane V/C Ratio	-	-	-	-	0.237	-
HCM Control Delay (s)	0	0	-	-	12.9	0
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	-	0.9	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	7	0	2	13	39	26	4	360	33	9	168	78
Future Vol, veh/h	7	0	2	13	39	26	4	360	33	9	168	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	60	92	48	50	72	35	67	73	25
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	8	0	8	22	42	54	8	500	94	13	230	312

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1024	1023	386	980	1132	547	542	0	0	594	0	0
Stage 1	413	413	-	563	563	-	-	-	-	-	-	-
Stage 2	611	610	-	417	569	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	162	179	631	244	218	549	1037	-	-	992	-	-
Stage 1	553	532	-	531	529	-	-	-	-	-	-	-
Stage 2	409	412	-	632	525	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	121	173	631	235	211	549	1037	-	-	992	-	-
Mov Cap-2 Maneuver	121	173	-	235	211	-	-	-	-	-	-	-
Stage 1	546	521	-	525	523	-	-	-	-	-	-	-
Stage 2	335	407	-	612	515	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.8	24.4	0.1	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1037	-	-	207	302	992	-	-
HCM Lane V/C Ratio	0.008	-	-	0.075	0.391	0.014	-	-
HCM Control Delay (s)	8.5	0	-	23.8	24.4	8.7	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	1.8	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	33	74	156	4	141	6	297	354	7	7	148	27
Future Vol, veh/h	33	74	156	4	141	6	297	354	7	7	148	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	65	60	69	50	72	31	69	70	85	85	73	75
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	51	123	226	8	196	19	430	506	8	8	203	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1715	1612	221	1783	1626	510	239	0	0	514	0	0
Stage 1	237	237	-	1371	1371	-	-	-	-	-	-	-
Stage 2	1478	1375	-	412	255	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	87	126	834	71	~ 113	576	1340	-	-	1062	-	-
Stage 1	791	732	-	197	233	-	-	-	-	-	-	-
Stage 2	187	250	-	635	710	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 69	834	-	~ 62	576	1340	-	-	1062	-	-
Mov Cap-2 Maneuver	-	~ 69	-	-	~ 62	-	-	-	-	-	-	-
Stage 1	435	725	-	108	~ 128	-	-	-	-	-	-	-
Stage 2	-	138	-	381	704	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			4.1	0.3
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1340	-	-	-	-	1062	-	-
HCM Lane V/C Ratio	0.321	-	-	-	-	0.008	-	-
HCM Control Delay (s)	9	0	-	-	-	8.4	0	-
HCM Lane LOS	A	A	-	-	-	A	A	-
HCM 95th %tile Q(veh)	1.4	-	-	-	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	182.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	1	1	113	2	104	1	550	145	83	234	0
Future Vol, veh/h	1	1	1	113	2	104	1	550	145	83	234	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	10	-	-	-9	-	-	1	-
Peak Hour Factor	25	25	25	81	50	64	25	81	65	76	88	92
Heavy Vehicles, %	0	0	0	0	0	3	0	0	0	8	1	2
Mvmt Flow	4	4	4	140	4	163	4	679	223	109	266	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1366	1394	266	1287	1283	791	266	0	0	902	0	0
Stage 1	484	484	-	799	799	-	-	-	-	-	-	-
Stage 2	882	910	-	488	484	-	-	-	-	-	-	-
Critical Hdwy	6.1	5.5	5.7	9.1	8.5	7.23	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.327	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	184	210	807	~ 70	82	311	1310	-	-	729	-	-
Stage 1	650	635	-	245	257	-	-	-	-	-	-	-
Stage 2	439	459	-	431	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	74	178	807	~ 60	69	311	1310	-	-	729	-	-
Mov Cap-2 Maneuver	74	178	-	~ 60	69	-	-	-	-	-	-	-
Stage 1	646	540	-	244	255	-	-	-	-	-	-	-
Stage 2	205	456	-	362	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.7	$ 950.1	0	3.1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1310	-	-	147	105	729	-	-
HCM Lane V/C Ratio	0.003	-	-	0.082	2.914	0.15	-	-
HCM Control Delay (s)	7.8	0	-	31.7	$ 950.1	10.8	-	-
HCM Lane LOS	A	A	-	D	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	29.1	0.5	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	73.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	6	9	116	4	48	27	564	193	85	182	18
Future Vol, veh/h	13	6	9	116	4	48	27	564	193	85	182	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	50	42	40	60	50	64	55	88	66	59	89	57
Heavy Vehicles, %	0	0	0	0	0	0	0	1	5	0	3	0
Mvmt Flow	26	14	23	193	8	75	49	641	292	144	204	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	931	1540	118	1283	1409	467	236	0	0	933	0	0
Stage 1	508	508	-	885	885	-	-	-	-	-	-	-
Stage 2	423	1032	-	398	524	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.2	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	192	90	909	~ 143	164	562	1343	-	-	742	-	-
Stage 1	479	498	-	342	404	-	-	-	-	-	-	-
Stage 2	545	263	-	632	565	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	123	64	909	~ 91	117	562	1343	-	-	742	-	-
Mov Cap-2 Maneuver	123	64	-	~ 91	117	-	-	-	-	-	-	-
Stage 1	440	386	-	314	371	-	-	-	-	-	-	-
Stage 2	425	242	-	461	438	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.1	$ 436.3	0.6	4.4
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1343	-	-	123	148	91	411	742	-	-
HCM Lane V/C Ratio	0.037	-	-	0.211	0.249	2.125	0.202	0.194	-	-
HCM Control Delay (s)	7.8	0.3	-	41.9	37.2	$ 616.7	16	11	0.5	-
HCM Lane LOS	A	A	-	E	E	F	C	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.9	17	0.7	0.7	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	379	39	39	340	7	7
Future Vol, veh/h	379	39	39	340	7	7
Conflicting Peds, #/hr	0	5	5	0	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	286	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	412	42	42	370	8	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	457	0	890	441
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	454	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1104	-	313	616
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	640	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1100	-	299	612
Mov Cap-2 Maneuver	-	-	-	-	424	-
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	613	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	501	-	-	1100	-
HCM Lane V/C Ratio	0.03	-	-	0.039	-
HCM Control Delay (s)	12.4	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

HCM 2010 Signalized Intersection Summary
1: McCLELLAN AVE & GROVE ST

3/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	61	21	105	89	19	38	300	59	38	605	71
Future Volume (veh/h)	43	61	21	105	89	19	38	300	59	38	605	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1808	1862	1862	1928	1928	1928	1843	1770	1843	1938	1938	1938
Adj Flow Rate, veh/h	73	73	27	157	124	40	45	357	73	40	688	83
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.59	0.83	0.79	0.67	0.72	0.47	0.85	0.84	0.81	0.94	0.88	0.86
Percent Heavy Veh, %	3	0	0	0	0	0	0	5	5	0	0	0
Cap, veh/h	453	478	177	532	515	166	338	1376	278	505	1634	197
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1181	1297	480	1335	1398	451	688	2787	564	993	3310	399
Grp Volume(v), veh/h	73	0	100	157	0	164	45	214	216	40	382	389
Grp Sat Flow(s),veh/h/ln	1181	0	1777	1335	0	1849	688	1681	1670	993	1841	1868
Q Serve(g_s), s	3.7	0.0	3.0	7.1	0.0	4.9	3.6	5.9	6.0	2.0	10.6	10.6
Cycle Q Clear(g_c), s	8.6	0.0	3.0	10.1	0.0	4.9	14.2	5.9	6.0	8.0	10.6	10.6
Prop In Lane	1.00		0.27	1.00		0.24	1.00		0.34	1.00		0.21
Lane Grp Cap(c), veh/h	453	0	655	532	0	682	338	830	825	505	909	922
V/C Ratio(X)	0.16	0.00	0.15	0.30	0.00	0.24	0.13	0.26	0.26	0.08	0.42	0.42
Avail Cap(c_a), veh/h	453	0	655	532	0	682	338	830	825	505	909	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	16.9	20.3	0.0	17.5	17.5	11.7	11.8	14.1	12.9	12.9
Incr Delay (d2), s/veh	0.8	0.0	0.5	1.4	0.0	0.8	0.8	0.8	0.8	0.3	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	1.6	2.8	0.0	2.7	0.8	2.9	2.9	0.6	5.7	5.8
LnGrp Delay(d),s/veh	21.2	0.0	17.4	21.7	0.0	18.3	18.3	12.5	12.5	14.4	14.4	14.4
LnGrp LOS	C		B	C		B	B	B	B	B	B	B
Approach Vol, veh/h		173			321			475			811	
Approach Delay, s/veh		19.0			20.0			13.1			14.4	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		39.5		29.5		39.5		29.5
Max Q Clear Time (g_c+I1), s		16.2		10.6		12.6		12.1
Green Ext Time (p_c), s		8.5		2.1		9.0		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	491	82	179	691	113	126	372	112	119	513	176
Future Volume (veh/h)	122	491	82	179	691	113	126	372	112	119	513	176
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1820	1938
Adj Flow Rate, veh/h	133	534	89	195	751	123	137	404	122	129	558	191
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	8	8
Cap, veh/h	274	1370	227	369	1373	225	245	1012	302	339	954	325
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	632	3039	505	798	3046	499	710	2688	803	891	2533	864
Grp Volume(v), veh/h	133	310	313	195	436	438	137	265	261	129	380	369
Grp Sat Flow(s),veh/h/ln	632	1770	1774	798	1770	1775	710	1770	1721	891	1729	1668
Q Serve(g_s), s	13.6	8.2	8.2	15.1	12.6	12.6	13.4	7.7	7.8	8.7	12.3	12.4
Cycle Q Clear(g_c), s	26.2	8.2	8.2	23.4	12.6	12.6	25.8	7.7	7.8	16.6	12.3	12.4
Prop In Lane	1.00		0.28	1.00		0.28	1.00		0.47	1.00		0.52
Lane Grp Cap(c), veh/h	274	798	800	369	798	800	245	666	648	339	651	628
V/C Ratio(X)	0.49	0.39	0.39	0.53	0.55	0.55	0.56	0.40	0.40	0.38	0.58	0.59
Avail Cap(c_a), veh/h	274	798	800	369	798	800	245	666	648	339	651	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	12.8	12.8	20.6	14.0	14.0	27.8	16.0	16.1	22.1	17.5	17.5
Incr Delay (d2), s/veh	6.0	1.4	1.4	5.3	2.7	2.7	9.0	1.8	1.9	3.2	3.8	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	4.3	4.3	3.9	6.7	6.7	3.2	4.1	4.0	2.5	6.5	6.3
LnGrp Delay(d),s/veh	29.6	14.2	14.3	26.0	16.7	16.7	36.8	17.8	17.9	25.4	21.3	21.5
LnGrp LOS	C	B	B	C	B	B	D	B	B	C	C	C
Approach Vol, veh/h		756			1069			663			878	
Approach Delay, s/veh		17.0			18.4			21.8			22.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.4		37.7		32.4		37.7
Change Period (Y+Rc), s		* 6		* 6.1		* 6		* 6.1
Max Green Setting (Gmax), s		* 26		* 32		* 26		* 32
Max Q Clear Time (g_c+I1), s		27.8		28.2		18.6		25.4
Green Ext Time (p_c), s		0.0		2.8		5.2		4.8

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	155	899	45	72	618	216	24	128	90	468	213	419
Future Volume (veh/h)	155	899	45	72	618	216	24	128	90	468	213	419
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1947	1853	1890	1996	1881	1793	1852	1852	1852	1814	1809	1814
Adj Flow Rate, veh/h	185	917	54	109	679	245	33	133	117	585	254	537
Adj No. of Lanes	1	2	1	1	2	1	1	1	0	1	1	0
Peak Hour Factor	0.84	0.98	0.83	0.66	0.91	0.88	0.72	0.96	0.77	0.80	0.84	0.78
Percent Heavy Veh, %	1	2	0	0	2	7	0	0	0	0	1	1
Cap, veh/h	158	1394	636	141	1376	587	103	238	209	258	135	286
Arrive On Green	0.09	0.40	0.40	0.07	0.38	0.38	0.28	0.26	0.26	0.28	0.26	0.26
Sat Flow, veh/h	1854	3522	1607	1901	3575	1524	679	910	801	1096	519	1097
Grp Volume(v), veh/h	185	917	54	109	679	245	33	0	250	585	0	791
Grp Sat Flow(s),veh/h/ln	1854	1761	1607	1901	1787	1524	679	0	1711	1096	0	1615
Q Serve(g_s), s	6.8	17.0	1.7	4.5	11.5	9.4	1.5	0.0	10.1	12.3	0.0	20.9
Cycle Q Clear(g_c), s	6.8	17.0	1.7	4.5	11.5	9.4	22.4	0.0	10.1	22.4	0.0	20.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.68
Lane Grp Cap(c), veh/h	158	1394	636	141	1376	587	103	0	447	258	0	422
V/C Ratio(X)	1.17	0.66	0.08	0.77	0.49	0.42	0.32	0.00	0.56	2.26	0.00	1.87
Avail Cap(c_a), veh/h	158	1394	636	162	1376	587	103	0	447	258	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.6	19.7	15.1	36.4	18.7	18.0	39.7	0.0	25.6	36.0	0.0	29.6
Incr Delay (d2), s/veh	126.1	2.4	0.3	18.1	1.3	2.2	1.8	0.0	1.6	581.2	0.0	402.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	8.8	0.8	3.1	5.9	4.3	0.8	0.0	5.0	47.4	0.0	56.4
LnGrp Delay(d),s/veh	162.7	22.2	15.4	54.5	19.9	20.2	41.5	0.0	27.1	617.2	0.0	432.0
LnGrp LOS	F	C	B	D	B	C	D		C	F		F
Approach Vol, veh/h		1156			1033			283			1376	
Approach Delay, s/veh		44.4			23.6			28.8			510.8	
Approach LOS		D			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	37.0		30.0	12.1	37.9		30.0
Change Period (Y+Rc), s	* 6.2	* 6.2		* 9.1	* 6.2	* 6.2		* 9.1
Max Green Setting (Gmax), s	* 6.8	* 31		* 21	* 6.8	* 31		* 21
Max Q Clear Time (g_c+I1), s	8.8	13.5		24.4	6.5	19.0		24.4
Green Ext Time (p_c), s	0.0	7.2		0.0	0.0	5.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	204.4
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	452	91	24	478	26	58	191	37	37	267	105
Future Volume (veh/h)	85	452	91	24	478	26	58	191	37	37	267	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1872	1946	1900	1900	1976	1938	1907	2016	1769	1843	1917
Adj Flow Rate, veh/h	96	486	110	27	562	36	79	242	57	45	334	113
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.89	0.93	0.83	0.88	0.85	0.72	0.73	0.79	0.65	0.83	0.80	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	287	690	156	280	825	53	262	553	130	363	488	165
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	820	1477	334	834	1766	113	977	1493	352	1022	1318	446
Grp Volume(v), veh/h	96	0	596	27	0	598	79	0	299	45	0	447
Grp Sat Flow(s),veh/h/ln	820	0	1811	834	0	1880	977	0	1845	1022	0	1764
Q Serve(g_s), s	6.9	0.0	17.4	1.8	0.0	16.5	4.9	0.0	8.1	2.3	0.0	14.2
Cycle Q Clear(g_c), s	23.4	0.0	17.4	19.1	0.0	16.5	19.1	0.0	8.1	10.4	0.0	14.2
Prop In Lane	1.00		0.18	1.00		0.06	1.00		0.19	1.00		0.25
Lane Grp Cap(c), veh/h	287	0	846	280	0	878	262	0	684	363	0	654
V/C Ratio(X)	0.33	0.00	0.70	0.10	0.00	0.68	0.30	0.00	0.44	0.12	0.00	0.68
Avail Cap(c_a), veh/h	332	0	944	325	0	979	262	0	684	363	0	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	14.1	21.7	0.0	13.8	25.7	0.0	15.7	19.6	0.0	17.6
Incr Delay (d2), s/veh	0.7	0.0	2.1	0.1	0.0	1.7	2.9	0.0	2.0	0.7	0.0	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	9.1	0.4	0.0	8.9	1.5	0.0	4.5	0.7	0.0	7.9
LnGrp Delay(d),s/veh	23.7	0.0	16.2	21.8	0.0	15.5	28.6	0.0	17.7	20.3	0.0	23.3
LnGrp LOS	C		B	C		B	C		B	C		C
Approach Vol, veh/h		692			625			378			492	
Approach Delay, s/veh		17.2			15.8			20.0			23.1	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		36.4		30.0		36.4
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		21.1		25.4		16.2		21.1
Green Ext Time (p_c), s		1.7		5.4		3.5		7.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

3/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1145	284	0	344	0	0	551	719
Future Volume (vph)	0	0	0	0	1145	284	0	344	0	0	551	719
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3497	1555		1710			1927	1644
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3497	1555		1710			1927	1644
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.91	0.74	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	0	0	0	1258	384	0	430	0	0	599	846
RTOR Reduction (vph)	0	0	0	0	0	182	0	0	0	0	0	27
Lane Group Flow (vph)	0	0	0	0	1258	202	0	430	0	0	599	819
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					33.6	33.6		34.0			30.0	30.0
Effective Green, g (s)					35.1	35.1		36.8			32.8	32.8
Actuated g/C Ratio					0.44	0.44		0.46			0.41	0.41
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1534	682		786			790	674
v/s Ratio Prot					c0.36			0.25			0.31	
v/s Ratio Perm						0.13						c0.50
v/c Ratio					0.82	0.30		0.55			0.76	1.21
Uniform Delay, d1					19.7	14.5		15.6			20.2	23.6
Progression Factor					1.00	1.00		0.00			1.00	1.00
Incremental Delay, d2					5.0	1.1		2.0			6.7	110.0
Delay (s)					24.7	15.6		2.0			26.9	133.6
Level of Service					C	B		A			C	F
Approach Delay (s)		0.0			22.6			2.0			89.4	
Approach LOS		A			C			A			F	

Intersection Summary			
HCM 2000 Control Delay	47.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1220	416	0	0	0	0	376	247	0	507	0
Future Volume (vph)	0	1220	416	0	0	0	0	376	247	0	507	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2025					1788	1505		2491	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2025					1788	1505		2491	
Peak-hour factor, PHF	0.92	0.95	0.91	0.92	0.92	0.92	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	1284	457	0	0	0	0	470	284	0	551	0
RTOR Reduction (vph)	0	0	121	0	0	0	0	0	28	0	0	0
Lane Group Flow (vph)	0	1284	336	0	0	0	0	470	256	0	551	0
Heavy Vehicles (%)	0%	1%	0%	2%	2%	2%	0%	2%	3%	0%	0%	0%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		33.6	33.6					30.0	30.0		34.0	
Effective Green, g (s)		35.1	35.1					31.5	31.5		35.5	
Actuated g/C Ratio		0.44	0.44					0.39	0.39		0.44	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1552	888					704	592		1105	
v/s Ratio Prot		c0.36						c0.26			0.22	
v/s Ratio Perm			0.17						0.17			
v/c Ratio		0.83	0.38					0.67	0.43		0.50	
Uniform Delay, d1		19.8	15.1					19.9	17.7		15.9	
Progression Factor		1.00	1.00					0.86	0.81		0.00	
Incremental Delay, d2		5.2	1.2					4.9	2.3		1.0	
Delay (s)		25.0	16.3					22.2	16.6		1.0	
Level of Service		C	B					C	B		A	
Approach Delay (s)		22.7			0.0			20.1			1.0	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	1058	363	75	34	34
Future Vol, veh/h	0	1058	363	75	34	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	1	-	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1150	395	82	37	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	476	0	-	0	1585	435
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	1150	-
Critical Hdwy	4.12	-	-	-	6.82	6.42
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1086	-	-	-	100	606
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	265	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1086	-	-	-	100	606
Mov Cap-2 Maneuver	-	-	-	-	100	-
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	265	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	36
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1086	-	-	-	100	606
HCM Lane V/C Ratio	-	-	-	-	0.37	0.061
HCM Control Delay (s)	0	-	-	-	60.7	11.3
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0	-	-	-	1.5	0.2

Intersection	
Int Delay, s/veh	248.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	112	719	98	299	340	34
Future Vol, veh/h	112	719	98	299	340	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	2	-	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	782	107	325	370	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	432	0	-	0	1294	269
Stage 1	-	-	-	-	269	-
Stage 2	-	-	-	-	1025	-
Critical Hdwy	4.12	-	-	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1128	-	-	-	~ 145	753
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	~ 292	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1128	-	-	-	~ 117	753
Mov Cap-2 Maneuver	-	-	-	-	~ 117	-
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	~ 236	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	$ 1063.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1128	-	-	-	127
HCM Lane V/C Ratio	0.108	-	-	-	3.201
HCM Control Delay (s)	8.6	0	-	$	1063.4
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	38.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	79.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	75	219	132	0	612	544
Future Vol, veh/h	75	219	132	0	612	544
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	238	143	0	665	591

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	143	0	-	0	544	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	401	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1440	-	-	-	~ 531	912
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1440	-	-	-	~ 496	912
Mov Cap-2 Maneuver	-	-	-	-	~ 496	-
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	~ 660	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	108.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1440	-	-	-	496	912
HCM Lane V/C Ratio	0.057	-	-	-	1.341	0.648
HCM Control Delay (s)	7.7	0	-	-	190.4	15.9
HCM Lane LOS	A	A	-	-	F	C
HCM 95th %tile Q(veh)	0.2	-	-	-	29.6	4.9

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	1061	0	338	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	1061	0	338	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1153	0	367	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	577	1153	0	1153	1153	576
Stage 1	-	-	-	0	0	-	1153	1153	-
Stage 2	-	-	-	577	1153	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	447	196	-	191	196	460
Stage 1	-	-	-	-	-	-	263	270	-
Stage 2	-	-	-	525	270	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	447	0	-	191	0	460
Mov Cap-2 Maneuver	-	-	-	447	0	-	191	0	-
Stage 1	-	-	-	-	0	-	263	0	-
Stage 2	-	-	-	525	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	40.7	0
HCM LOS		E	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	447	-	-	-	-	-
HCM Lane V/C Ratio	0.822	-	-	-	-	-
HCM Control Delay (s)	40.7	0	0	-	-	0
HCM Lane LOS	E	A	A	-	-	A
HCM 95th %tile Q(veh)	7.8	-	-	-	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Vol, veh/h	30	9	3	19	8	58	1	154	22	63	234	37
Future Vol, veh/h	30	9	3	19	8	58	1	154	22	63	234	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	8	-	-	10	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	10	3	21	9	63	1	167	24	68	254	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	628	604	274	600	614	179	295	0	0	191	0	0
Stage 1	411	411	-	182	182	-	-	-	-	-	-	-
Stage 2	217	193	-	418	432	-	-	-	-	-	-	-
Critical Hdwy	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	439	456	782	316	310	830	1266	-	-	1383	-	-
Stage 1	662	637	-	756	691	-	-	-	-	-	-	-
Stage 2	814	765	-	509	481	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	378	429	782	295	291	830	1266	-	-	1383	-	-
Mov Cap-2 Maneuver	378	429	-	295	291	-	-	-	-	-	-	-
Stage 1	661	599	-	755	690	-	-	-	-	-	-	-
Stage 2	742	764	-	469	453	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	15.1	13.3	0	1.5
HCM LOS	C	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1266	-	-	525	403	1383	-	-
HCM Lane V/C Ratio	0.001	-	-	0.176	0.113	0.05	-	-
HCM Control Delay (s)	7.8	0	-	13.3	15.1	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.4	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1508	0	0	0	0	0	0	0	128	0	0
Future Vol, veh/h	0	1508	0	0	0	0	0	0	0	128	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1639	0	0	0	0	0	0	0	139	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	1639	1639	819	820	1639	0
Stage 1	-	-	-	1639	1639	-	0	0	-
Stage 2	-	-	-	0	0	-	820	1639	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	91	99	319	313	99	-
Stage 1	-	-	-	144	157	-	-	-	-
Stage 2	-	-	-	-	-	-	393	157	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	91	0	319	313	0	-
Mov Cap-2 Maneuver	-	-	-	91	0	-	313	0	-
Stage 1	-	-	-	144	0	-	-	0	-
Stage 2	-	-	-	-	0	-	393	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	25.4
HCM LOS		A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	313	-
HCM Lane V/C Ratio	-	-	-	-	0.445	-
HCM Control Delay (s)	0	0	-	-	25.4	0
HCM Lane LOS	A	A	-	-	D	A
HCM 95th %tile Q(veh)	-	-	-	-	2.2	-

Intersection	
Int Delay, s/veh	55.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	34	1	1	58	39	34	1	218	93	11	300	76
Future Vol, veh/h	34	1	1	58	39	34	1	218	93	11	300	76
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	41	25	75	25	79	44	50	79	25
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	37	1	4	141	156	45	4	276	211	22	380	304

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1066	1071	532	968	1118	382	684	0	0	487	0	0
Stage 1	576	576	-	390	390	-	-	-	-	-	-	-
Stage 2	490	495	-	578	728	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	150	165	512	248	222	677	919	-	-	1086	-	-
Stage 1	431	431	-	652	625	-	-	-	-	-	-	-
Stage 2	492	479	-	521	449	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	55	158	512	237	213	677	919	-	-	1086	-	-
Mov Cap-2 Maneuver	55	158	-	237	213	-	-	-	-	-	-	-
Stage 1	428	416	-	648	621	-	-	-	-	-	-	-
Stage 2	342	476	-	498	433	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	146.4	238.6	0.1	0.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	919	-	-	61	246	1086	-	-
HCM Lane V/C Ratio	0.004	-	-	0.689	1.393	0.02	-	-
HCM Control Delay (s)	8.9	0	-	146.4	238.6	8.4	0	-
HCM Lane LOS	A	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0	-	-	3	18.9	0.1	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	115	296	682	17	140	13	278	185	2	18	315	20
Future Vol, veh/h	115	296	682	17	140	13	278	185	2	18	315	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	60	62	69	63	69	60	58	83	50	37	71	56
Heavy Vehicles, %	8	0	0	0	0	0	7	1	0	0	0	0
Mvmt Flow	192	477	988	27	203	22	479	223	4	49	444	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1855	1745	462	2476	1761	225	479	0	0	227	0	0
Stage 1	559	559	-	1184	1184	-	-	-	-	-	-	-
Stage 2	1296	1186	-	1292	577	-	-	-	-	-	-	-
Critical Hdwy	6.78	6.1	6	6.9	6.3	6.1	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4	3.3	3.5	4	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 67	~ 106	~ 620	~ 24	~ 94	825	1058	-	-	1353	-	-
Stage 1	535	547	-	249	283	-	-	-	-	-	-	-
Stage 2	224	~ 302	-	217	521	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 49	~ 620	-	~ 43	825	1058	-	-	1353	-	-
Mov Cap-2 Maneuver	-	~ 49	-	-	~ 43	-	-	-	-	-	-	-
Stage 1	258	520	-	120	~ 136	-	-	-	-	-	-	-
Stage 2	-	~ 146	-	-	495	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			7.6	0.7
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1058	-	-	-	-	1353	-	-
HCM Lane V/C Ratio	0.453	-	-	-	-	0.036	-	-
HCM Control Delay (s)	11.2	0	-	-	-	7.8	0	-
HCM Lane LOS	B	A	-	-	-	A	A	-
HCM 95th %tile Q(veh)	2.4	-	-	-	-	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	976.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER
Traffic Vol, veh/h	0	2	2	188	0	62	101	910	404	92
Future Vol, veh/h	0	2	2	188	0	62	101	910	404	92
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	75	0	0	-
Veh in Median Storage, #	-	0	-	-	0	-	0	-	0	-
Grade, %	-	-5	-	-	10	-	1	-	-9	-
Peak Hour Factor	92	50	50	88	92	96	89	71	93	83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	3	0
Mvmt Flow	0	4	4	214	0	65	113	1282	434	111

Major/Minor	Minor2			Minor1			Major2		Major1	
Conflicting Flow All	2041	2064	1284	2013	2011	490	545	0	1286	0
Stage 1	1511	1511	-	498	498	-	-	-	-	-
Stage 2	530	553	-	1515	1513	-	-	-	-	-
Critical Hdwy	6.1	5.5	5.7	9.1	8.5	7.2	4.1	-	4.1	-
Critical Hdwy Stg 1	5.1	4.5	-	8.1	7.5	-	-	-	-	-
Critical Hdwy Stg 2	5.1	4.5	-	8.1	7.5	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	2.2	-
Pot Cap-1 Maneuver	74	98	243	~ 14	20	508	1034	-	546	-
Stage 1	231	281	-	423	415	-	-	-	-	-
Stage 2	621	603	-	~ 65	80	-	-	-	-	-
Platoon blocked, %								-		-
Mov Cap-1 Maneuver	59	86	243	~ 12	18	508	1034	-	546	-
Mov Cap-2 Maneuver	59	86	-	~ 12	18	-	-	-	-	-
Stage 1	228	250	-	418	410	-	-	-	-	-
Stage 2	536	596	-	~ 56	71	-	-	-	-	-

Approach	EB	WB	SB	NE
HCM Control Delay, s	35.2	$ 7836.4	0.7	0.1
HCM LOS	E	F		

Minor Lane/Major Mvmt	NEL2	NEL	NER	EBLn1	WBLn1	SBL	SBR	SBR2
Capacity (veh/h)	546	-	-	127	16	1034	-	-
HCM Lane V/C Ratio	0.007	-	-	0.063	17.389	0.11	-	-
HCM Control Delay (s)	11.6	0	-	35.2	$ 7836.4	8.9	-	-
HCM Lane LOS	B	A	-	E	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	35.7	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	689.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	35	16	119	554	11	146	34	436	173	89	597	86
Future Vol, veh/h	35	16	119	554	11	146	34	436	173	89	597	86
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	17	129	602	12	159	37	474	188	97	649	93

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1206	1625	371	1169	1578	331	742	0	0	662	0	0
Stage 1	889	889	-	642	642	-	-	-	-	-	-	-
Stage 2	317	736	-	527	936	-	-	-	-	-	-	-
Critical Hdwy	8.14	7.14	7.24	7.14	6.14	6.74	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	7.14	6.14	-	6.14	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.14	6.14	-	6.14	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	114	77	607	~ 169	129	677	861	-	-	922	-	-
Stage 1	263	310	-	~ 461	502	-	-	-	-	-	-	-
Stage 2	634	374	-	~ 533	379	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	65	59	607	~ 85	98	677	861	-	-	922	-	-
Mov Cap-2 Maneuver	65	59	-	~ 85	98	-	-	-	-	-	-	-
Stage 1	245	254	-	~ 429	467	-	-	-	-	-	-	-
Stage 2	440	348	-	~ 320	310	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	48.2	$ 2211.7	0.7	1.6
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	861	-	-	65	289	85	479	922	-	-
HCM Lane V/C Ratio	0.043	-	-	0.585	0.508	7.084	0.356	0.105	-	-
HCM Control Delay (s)	9.4	0.3	-	119.7	29.$	$ 2833.8	16.6	9.4	0.7	-
HCM Lane LOS	A	A	-	F	D	F	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.5	2.7	68	1.6	0.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	594	38	38	591	34	34
Future Vol, veh/h	594	38	38	591	34	34
Conflicting Peds, #/hr	0	5	5	0	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	286	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	646	41	41	642	37	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	690	0	1394	674
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	905	-	156	455
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	902	-	148	452
Mov Cap-2 Maneuver	-	-	-	-	286	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	455	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	18
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	350	-	-	902	-
HCM Lane V/C Ratio	0.211	-	-	0.046	-
HCM Control Delay (s)	18	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

YEAR 2038 BUILD CONDITIONS
CAPACITY ANALYSIS RESULTS

US-41/Front St-2038 Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 49

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	159	0	93	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	161	0	386	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	832	497	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	159	93	832	0	1344	1436	0.1221	0.0656	4.07	0.65	2.81	0.15	0.00	0.41	0.00	A	A	A
2	EB US 41	Free	161	386	159	0	1728	1444	0.0950	0.2707	3.09	2.34	2.56	0.11	0.00	0.30	0.00	A	A	A
3	NB US 41/Front ...	None	1329		161		2022		0.6777		11.66		11.66	3.81		9.08		B		B
All	Intersection												8.27							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Front St-2038 Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Front St-US41).rod

File View Help

Project: Marquette Hospital Study 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: US 41 @ Front Street | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 51

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Front Street	Y	90	0	13.00	1	25.00	2	130.00	120.00	30.00	150.00	26.00	2	26.00	2	12.00	1	0	1.000
2	EB US 41	Y	180	0	11.00	1	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000
3	NB US 41/Front ...	Y	270	0	24.00	2	25.00	2	130.00	120.00	30.00	150.00	29.00	2	26.00	2	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Front Street	5.0	1.00			0	529	0	253	0.750	1.125	0.750	0	30	60	
2	EB US 41	5.0	1.00			0	213	0	1244	0.750	1.125	0.750	0	30	60	
3	NB US 41/Front ...	5.0	1.00			0	653	375	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Front Street	Free	529	253	653	0	1465	1436	0.3718	0.1784	6.35	1.77	4.87	0.67	0.00	1.74	0.00	A	A	A
2	EB US 41	Free	213	1244	529	0	1096	1348	0.1999	0.9461	5.72	10.61	9.89	0.28	6.90	0.72	15.50	A	B	A
3	NB US 41/Front ...	None	1028		213		1984		0.5320		8.92		8.92	1.99		4.97		A		A
All	Intersection												8.38							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/7th St-2038 Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (7th-US41).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: 7th St & US-41 | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 168

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB 7th St	Y	0	0	12.00	1	18.00	1	55.00	121.00	27.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	90	0	24.00	2	27.00	2	70.00	64.00	24.50	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	NB 7th St	Y	180	0	12.00	1	18.00	1	118.00	76.00	15.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
4	WB US-41	Y	270	0	24.00	2	27.00	2	70.00	150.00	24.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB 7th St	5.0	1.00			0	23	88	0	128	0.750	1.125	0.750	0	30	60	
2	EB US-41	5.0	1.00			0	125	486	68	0	0.750	1.125	0.750	0	30	60	
3	NB 7th St	5.0	1.00			0	38	191	39	0	0.750	1.125	0.750	0	30	60	
4	WB US-41	5.0	1.00			0	39	777	109	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB 7th St	Yield	111	128	854	854	1067	1149	0.1072	0.1148	4.60	4.66	4.64	0.13	0.15	0.35	0.40	A	A	A
2	EB US-41	None	679		150		2114		0.3278		5.40		5.40	0.65		1.68		A		A
3	NB 7th St	None	268		634		926		0.2984		7.52		7.52	0.47		1.22		A		A
4	WB US-41	None	925		354		1928		0.4923		7.07		7.07	1.25		3.20		A		A
All	Intersection												6.32							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/7th St-2038 Build-AM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (7th-US41).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: 7th St & US-41 | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 170

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB 7th St	Y	0	0	12.00	1	18.00	1	55.00	121.00	27.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	90	0	24.00	2	27.00	2	70.00	64.00	24.50	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	NB 7th St	Y	180	0	12.00	1	18.00	1	118.00	76.00	15.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
4	WB US-41	Y	270	0	24.00	2	27.00	2	70.00	150.00	24.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB 7th St	5.0	1.00			0	23	88	0	128	0.750	1.125	0.750	0	30	60	
2	EB US-41	5.0	1.00			0	125	486	68	0	0.750	1.125	0.750	0	30	60	
3	NB 7th St	5.0	1.00			0	38	191	39	0	0.750	1.125	0.750	0	30	60	
4	WB US-41	5.0	1.00			0	39	777	109	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB 7th St	Yield	111	128	854	854	879	952	0.1307	0.1391	5.70	5.76	5.73	0.17	0.19	0.44	0.50	A	A	A
2	EB US-41	None	679		150		1926		0.3601		5.97		5.97	0.75		1.94		A		A
3	NB 7th St	None	268		634		739		0.3767		9.91		9.91	0.67		1.75		A		A
4	WB US-41	None	925		354		1740		0.5468		8.19		8.19	1.58		4.00		A		A
All	Intersection												7.42							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/7th St-2038 Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (7th-US41).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: 7th St & US-41 | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 172

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB 7th St	Y	0	0	12.00	1	18.00	1	55.00	121.00	27.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	90	0	24.00	2	27.00	2	70.00	64.00	24.50	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	NB 7th St	Y	180	0	12.00	1	18.00	1	118.00	76.00	15.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
4	WB US-41	Y	270	0	24.00	2	27.00	2	70.00	150.00	24.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB 7th St	5.0	1.00			0	77	264	0	215	0.750	1.125	0.750	0	30	60	
2	EB US-41	5.0	1.00			0	80	1290	79	0	0.750	1.125	0.750	0	30	60	
3	NB 7th St	5.0	1.00			0	39	113	90	0	0.750	1.125	0.750	0	30	60	
4	WB US-41	5.0	1.00			0	72	790	44	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB 7th St	Yield	341	215	901	901	1047	1128	0.3368	0.1967	7.37	5.85	6.78	0.57	0.29	1.49	0.76	A	A	A
2	EB US-41	None	1449		413		1927		0.7772		12.02		12.02	4.66		10.91		B		B
3	NB 7th St	None	242		1447		625		0.4116		12.00		12.00	0.85		2.20		B		B
4	WB US-41	None	906		232		2052		0.4516		6.27		6.27	1.00		2.57		A		A
All	Intersection												9.44							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/7th St-2038 Build-PM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (7th-US41).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: 7th St & US-41 | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 173

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB 7th St	Y	0	0	12.00	1	18.00	1	55.00	121.00	27.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	90	0	24.00	2	27.00	2	70.00	64.00	24.50	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	NB 7th St	Y	180	0	12.00	1	18.00	1	118.00	76.00	15.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
4	WB US-41	Y	270	0	24.00	2	27.00	2	70.00	150.00	24.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB 7th St	5.0	1.00			0	77	264	0	215	0.750	1.125	0.750	0	30	60	
2	EB US-41	5.0	1.00			0	80	1290	79	0	0.750	1.125	0.750	0	30	60	
3	NB 7th St	5.0	1.00			0	39	113	90	0	0.750	1.125	0.750	0	30	60	
4	WB US-41	5.0	1.00			0	72	790	44	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB 7th St	Yield	341	215	901	901	859	931	0.4130	0.2395	9.46	7.22	8.59	0.81	0.38	2.09	0.99	A	A	A
2	EB US-41	None	1449		413		1740		0.8716		17.66		17.66	9.17		19.91		C		C
3	NB 7th St	None	242		1446		438		0.6104		22.89		22.89	2.10		5.22		C		C
4	WB US-41	None	906		232		1864		0.4978		7.10		7.10	1.21		3.10		A		A
All	Intersection												13.43							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Hospital Dr-2038 Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp Dr-US41).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Hospital Dr & US-41 | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 78

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Drive	Y	0	0	12.00	1	18.00	1	76.50	62.00	35.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	120	0	24.00	2	28.00	2	95.00	94.00	40.00	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	WB US-41	Y	240	0	24.00	2	28.00	2	95.00	123.00	15.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Drive	3.0	1.00			0	83	0	83	0.750	1.125	0.750	0	30	60	
2	EB US-41	3.0	1.00			0	192	595	0	0.750	1.125	0.750	0	30	60	
3	WB US-41	3.0	1.00			0	750	192	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Drive	Yield	83	83	750	750	1126	1224	0.0758	0.0697	4.08	3.84	3.96	0.09	0.09	0.24	0.23	A	A	A
2	EB US-41	None	787		83		1994		0.4033		6.69		6.69	1.01		2.58		A		A
3	WB US-41	None	942		192		2238		0.4304		6.39		6.39	1.09		2.79		A		A
All	Intersection												6.30							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Hospital Dr-2038 Build-AM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp Dr-US41).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Hospital Dr & US-41 | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 79

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Drive	Y	0	0	12.00	1	18.00	1	76.50	62.00	35.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	120	0	24.00	2	28.00	2	95.00	94.00	40.00	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	WB US-41	Y	240	0	24.00	2	28.00	2	95.00	123.00	15.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Drive	3.0	1.00			0	83	0	83	0.750	1.125	0.750	0	30	60	
2	EB US-41	3.0	1.00			0	192	595	0	0.750	1.125	0.750	0	30	60	
3	WB US-41	3.0	1.00			0	750	192	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Drive	Yield	83	83	750	750	931	1023	0.0920	0.0836	5.00	4.65	4.83	0.11	0.10	0.30	0.28	A	A	A
2	EB US-41	None	787		83		1799		0.4478		7.62		7.62	1.21		3.10		A		A
3	WB US-41	None	942		192		2043		0.4723		7.18		7.18	1.30		3.31		A		A
All	Intersection												7.16							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Hospital Dr-2038 Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp Dr-US41).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr & US-41 | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 81

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Drive	Y	0	0	12.00	1	18.00	1	76.50	62.00	35.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	120	0	24.00	2	28.00	2	95.00	94.00	40.00	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	WB US-41	Y	240	0	24.00	2	28.00	2	95.00	123.00	15.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Drive	3.0	1.00			0	425	0	425	0.750	1.125	0.750	0	30	60	
2	EB US-41	3.0	1.00			0	187	1024	0	0.750	1.125	0.750	0	30	60	
3	WB US-41	3.0	1.00			0	857	187	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Drive	Yield	425	425	857	857	1082	1177	0.4061	0.3730	8.23	7.68	7.95	0.80	0.73	2.08	1.89	A	A	A
2	EB US-41	None	1211		425		1767		0.7086		11.87		11.87	3.71		8.87		B		B
3	WB US-41	None	1044		187		2243		0.4760		6.77		6.77	1.28		3.27		A		A
All	Intersection												9.08							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

US-41/Hospital Dr-2038 Build-PM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp Dr-US41).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr & US-41 | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 82

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Drive	Y	0	0	12.00	1	18.00	1	76.50	62.00	35.00	170.00	32.00	2	18.00	1	12.00	1	0	1.000
2	EB US-41	Y	120	0	24.00	2	28.00	2	95.00	94.00	40.00	170.00	32.00	2	28.00	2	24.00	2	0	1.000
3	WB US-41	Y	240	0	24.00	2	28.00	2	95.00	123.00	15.00	170.00	24.00	1	28.00	2	24.00	2	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)				Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Drive	3.0	1.00			0	425	0	425	0.750	1.125	0.750	0	30	60	
2	EB US-41	3.0	1.00			0	187	1024	0	0.750	1.125	0.750	0	30	60	
3	WB US-41	3.0	1.00			0	857	187	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Drive	Yield	425	425	857	857	860	948	0.5155	0.4666	11.52	10.36	10.94	1.30	1.12	3.30	2.86	B	B	B
2	EB US-41	None	1211		425		1572		0.8051		16.80		16.80	6.62		14.94		C		C
3	WB US-41	None	1044		187		2048		0.5223		7.67		7.67	1.56		3.95		A		A
All	Intersection												12.13							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

LAPS

Baraga Ave/Hospital Dr-2038 Build-AM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp-Baraga).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 86

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	166	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	96	0	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	0	383	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	81	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	166		81		1573		0.1076		3.45		3.45	0.13		0.34		A		A
2	EB Baraga	None	96		166		1016		0.0966		4.62		4.62	0.11		0.30		A		A
3	NB Hospital	None	383		96		1948		0.2003		4.05		4.05	0.27		0.71		A		A
4	WB Baraga	None	81		383		953		0.0872		4.74		4.74	0.10		0.27		A		A
All	Intersection												4.07							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Baraga Ave/Hospital Dr-2038 Build-AM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp-Baraga).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 87

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	166	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	96	0	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	0	383	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	81	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	166		81		1385		0.1223		3.97		3.97	0.15		0.39		A		A
2	EB Baraga	None	96		166		828		0.1188		5.78		5.78	0.14		0.38		A		A
3	NB Hospital	None	383		96		1760		0.2219		4.47		4.47	0.31		0.81		A		A
4	WB Baraga	None	81		383		765		0.1089		6.02		6.02	0.13		0.35		A		A
All	Intersection												4.70							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Baraga Ave/Hospital Dr-2038 Build-PM 50%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp-Baraga).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 89

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	849	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	192	0	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	0	373	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	64	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	849		64		1589		0.5471		8.01		8.01	1.35		3.42		A		A
2	EB Baraga	None	192		849		765		0.2607		8.14		8.14	0.39		1.03		A		A
3	NB Hospital	None	373		192		1848		0.2060		4.22		4.22	0.28		0.74		A		A
4	WB Baraga	None	64		373		957		0.0686		4.47		4.47	0.08		0.21		A		A
All	Intersection												6.92							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Baraga Ave/Hospital Dr-2038 Build-PM 85%

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp-Baraga).rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 90

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	849	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	192	0	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	0	373	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	64	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	849		64		1401		0.6225		9.83		9.83	1.86		4.65		A		A
2	EB Baraga	None	192		849		577		0.3495		11.47		11.47	0.61		1.59		B		B
3	NB Hospital	None	373		192		1660		0.2295		4.68		4.68	0.32		0.85		A		A
4	WB Baraga	None	64		373		769		0.0856		5.65		5.65	0.10		0.26		A		A
All	Intersection												8.57							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Baraga Ave/Hospital Dr-2038 Build-PM 50% (SENSITIVITY ANALYSIS)

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp-Baraga) Sensitivity Analysis.rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 20

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	425	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	192	425	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	186	187	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	64	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	425		250		1412		0.3085		5.86		5.86	0.49		1.28		A		A
2	EB Baraga	None	617		425		921		0.6983		15.07		15.07	2.65		6.50		C		C
3	NB Hospital	None	373		192		1848		0.2070		6.50		6.50	0.56		1.46		A		A
4	WB Baraga	None	64		373		957		0.0686		4.47		4.47	0.08		0.21		A		A
All	Intersection												9.80							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Baraga Ave/Hospital Dr-2038 Build-PM 85% (SENSITIVITY ANALYSIS)

Rodel - M:\PROJ\1341\6553 Marquette Traffic Study\02 - Hospital Study\Traffic\RODEL\Preferred Alternative\2038 Build\2038 Build (Hosp-Baraga) Sensitivity Analysis.rod

File View Help

Project: Marquette Hospital 2038 Build | Date: 11-May-2016 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Hospital Dr @ Baraga | Flows: 2038 | Delay: Control | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 85 | Light | 21

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	SB Hospital	Y	0	0	12.00	1	28.00	2	41.50	173.00	25.00	130.00	24.00	1	28.00	2	12.00	1	0	1.000
2	EB Baraga	Y	90	0	12.00	1	18.00	1	56.50	50.00	30.00	130.00	32.00	2	16.00	1	12.00	1	0	1.000
3	NB Hospital	Y	180	0	12.00	1	28.00	2	163.00	147.00	21.50	130.00	24.00	1	28.00	2	12.00	1	0	1.000
4	WB Baraga	Y	270	0	12.00	1	18.00	1	56.50	62.00	28.50	130.00	32.00	2	16.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	SB Hospital	5.0	1.00			0	0	425	0	0	0.750	1.125	0.750	0	30	60	
2	EB Baraga	5.0	1.00			0	0	192	425	0	0.750	1.125	0.750	0	30	60	
3	NB Hospital	5.0	1.00			0	186	187	0	0	0.750	1.125	0.750	0	30	60	
4	WB Baraga	5.0	1.00			0	0	64	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	SB Hospital	None	425		250		1224		0.3567		6.88		6.88	0.61		1.60		A		A
2	EB Baraga	None	617		425		733		0.9121		33.30		33.30	8.42		18.48		D		D
3	NB Hospital	None	373		192		1660		0.2308		7.30		7.30	0.64		1.67		A		A
4	WB Baraga	None	64		373		769		0.0856		5.65		5.65	0.10		0.26		A		A
All	Intersection												17.95							C

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

HCM 2010 Signalized Intersection Summary
1: McCLELLAN AVE & GROVE ST

4/9/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	90	38	33	27	26	30	464	82	6	162	13
Future Volume (veh/h)	53	90	38	33	27	26	30	464	82	6	162	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1862	1862	1862	1928	1928	1928	1843	1740	1843	1938	1903	1938
Adj Flow Rate, veh/h	68	123	67	46	36	41	44	595	112	14	213	17
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.78	0.73	0.57	0.72	0.75	0.64	0.68	0.78	0.73	0.42	0.76	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	7	7	0	2	2
Cap, veh/h	544	413	225	456	300	342	606	1330	250	361	1624	129
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1316	1135	618	1230	824	939	1134	2780	522	768	3394	269
Grp Volume(v), veh/h	68	0	190	46	0	77	44	353	354	14	113	117
Grp Sat Flow(s),veh/h/ln	1316	0	1753	1230	0	1763	1134	1653	1648	768	1808	1855
Q Serve(g_s), s	2.5	0.0	5.4	1.9	0.0	2.0	1.6	9.9	10.0	0.9	2.4	2.5
Cycle Q Clear(g_c), s	4.6	0.0	5.4	7.3	0.0	2.0	4.0	9.9	10.0	10.8	2.4	2.5
Prop In Lane	1.00		0.35	1.00		0.53	1.00		0.32	1.00		0.14
Lane Grp Cap(c), veh/h	544	0	639	456	0	642	606	791	789	361	865	888
V/C Ratio(X)	0.12	0.00	0.30	0.10	0.00	0.12	0.07	0.45	0.45	0.04	0.13	0.13
Avail Cap(c_a), veh/h	544	0	639	456	0	642	606	791	789	361	865	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	15.9	18.5	0.0	14.8	11.3	12.1	12.1	15.7	10.1	10.2
Incr Delay (d2), s/veh	0.5	0.0	1.2	0.4	0.0	0.4	0.2	1.8	1.8	0.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.8	0.7	0.0	1.1	0.5	4.9	4.9	0.2	1.3	1.3
LnGrp Delay(d),s/veh	16.8	0.0	17.1	18.9	0.0	15.2	11.5	13.9	14.0	15.9	10.5	10.5
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		258			123			751			244	
Approach Delay, s/veh		17.0			16.6			13.8			10.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		39.0		31.0		39.0		31.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		33.5		25.5		33.5		25.5
Max Q Clear Time (g_c+I1), s		12.0		7.4		12.8		9.3
Green Ext Time (p_c), s		6.1		1.7		6.0		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	397	37	63	273	43	81	437	124	64	189	64
Future Volume (veh/h)	99	397	37	63	273	43	81	437	124	64	189	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1820	1938
Adj Flow Rate, veh/h	108	432	40	68	297	47	88	475	135	70	205	70
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	8	8
Cap, veh/h	438	881	81	378	786	123	547	937	265	384	878	291
Arrive On Green	0.09	0.27	0.27	0.08	0.26	0.26	0.03	0.11	0.11	0.08	0.34	0.34
Sat Flow, veh/h	1774	3277	302	1774	3068	480	1774	2727	770	1810	2553	847
Grp Volume(v), veh/h	108	232	240	68	170	174	88	307	303	70	137	138
Grp Sat Flow(s),veh/h/ln	1774	1770	1809	1774	1770	1778	1774	1770	1727	1810	1729	1671
Q Serve(g_s), s	3.4	8.8	8.9	2.1	6.3	6.5	2.5	13.1	13.2	1.9	4.5	4.7
Cycle Q Clear(g_c), s	3.4	8.8	8.9	2.1	6.3	6.5	2.5	13.1	13.2	1.9	4.5	4.7
Prop In Lane	1.00		0.17	1.00		0.27	1.00		0.45	1.00		0.51
Lane Grp Cap(c), veh/h	438	476	486	378	453	456	547	608	594	384	594	574
V/C Ratio(X)	0.25	0.49	0.49	0.18	0.37	0.38	0.16	0.50	0.51	0.18	0.23	0.24
Avail Cap(c_a), veh/h	438	476	486	378	453	456	547	608	594	384	594	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	24.6	24.7	18.7	24.5	24.5	14.9	29.1	29.1	14.9	18.7	18.8
Incr Delay (d2), s/veh	1.3	3.6	3.5	1.0	2.4	2.4	0.6	3.0	3.1	1.0	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.8	4.9	1.1	3.4	3.4	1.3	6.9	6.8	1.0	2.3	2.3
LnGrp Delay(d),s/veh	19.6	28.2	28.2	19.7	26.8	26.9	15.5	32.0	32.2	16.0	19.6	19.8
LnGrp LOS	B	C	C	B	C	C	B	C	C	B	B	B
Approach Vol, veh/h		580			412			698			345	
Approach Delay, s/veh		26.6			25.7			30.0			18.9	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	33.0	10.0	27.0	10.0	33.0	11.0	26.0
Change Period (Y+Rc), s	3.5	5.5	3.5	5.5	3.5	5.5	3.5	5.5
Max Green Setting (Gmax), s	6.5	27.5	6.5	21.5	6.5	27.5	7.5	20.5
Max Q Clear Time (g_c+I1), s	3.9	15.2	4.1	10.9	4.5	6.7	5.4	8.5
Green Ext Time (p_c), s	0.0	4.2	0.0	3.5	0.0	5.3	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	290	46	17	238	22	85	310	20	12	192	49
Future Volume (veh/h)	61	290	46	17	238	22	85	310	20	12	192	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1835	1835	1946	1863	1863	1976	1900	1900	2016	1735	1807	1917
Adj Flow Rate, veh/h	73	392	73	19	322	31	167	484	34	17	287	62
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.83	0.74	0.63	0.88	0.74	0.71	0.51	0.64	0.58	0.69	0.67	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	569	106	273	633	61	431	758	53	303	623	134
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1007	1504	280	922	1673	161	1048	1755	123	819	1441	311
Grp Volume(v), veh/h	73	0	465	19	0	353	167	0	518	17	0	349
Grp Sat Flow(s),veh/h/ln	1007	0	1784	922	0	1834	1048	0	1878	819	0	1752
Q Serve(g_s), s	3.4	0.0	12.5	1.0	0.0	8.4	7.7	0.0	12.3	0.9	0.0	8.0
Cycle Q Clear(g_c), s	11.9	0.0	12.5	13.5	0.0	8.4	15.7	0.0	12.3	13.3	0.0	8.0
Prop In Lane	1.00		0.16	1.00		0.09	1.00		0.07	1.00		0.18
Lane Grp Cap(c), veh/h	358	0	675	273	0	694	431	0	812	303	0	757
V/C Ratio(X)	0.20	0.00	0.69	0.07	0.00	0.51	0.39	0.00	0.64	0.06	0.00	0.46
Avail Cap(c_a), veh/h	589	0	1084	485	0	1114	431	0	812	303	0	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	14.9	20.6	0.0	13.6	17.0	0.0	12.7	17.9	0.0	11.5
Incr Delay (d2), s/veh	0.3	0.0	1.3	0.1	0.0	0.6	2.6	0.0	3.8	0.4	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	6.3	0.3	0.0	4.3	2.5	0.0	7.2	0.2	0.0	4.3
LnGrp Delay(d),s/veh	18.5	0.0	16.2	20.7	0.0	14.2	19.6	0.0	16.5	18.2	0.0	13.5
LnGrp LOS	B		B	C		B	B		B	B		B
Approach Vol, veh/h		538			372			685			366	
Approach Delay, s/veh		16.5			14.5			17.3			13.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		26.9		30.0		26.9
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		17.7		14.5		15.3		15.5
Green Ext Time (p_c), s		3.5		5.5		4.3		5.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

4/9/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	666	250	0	424	0	0	135	57
Future Volume (vph)	0	0	0	0	666	250	0	424	0	0	135	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3430	1586		1710			1889	1612
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3430	1586		1710			1889	1612
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.86	0.76	0.92	0.77	0.82	0.92	0.78	0.66
Adj. Flow (vph)	0	0	0	0	774	329	0	551	0	0	173	86
RTOR Reduction (vph)	0	0	0	0	0	154	0	0	0	0	0	46
Lane Group Flow (vph)	0	0	0	0	774	175	0	551	0	0	173	40
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	4%	0%	0%	2%	8%	0%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					30.6	30.6		37.0			33.0	33.0
Effective Green, g (s)					32.1	32.1		39.8			35.8	35.8
Actuated g/C Ratio					0.40	0.40		0.50			0.45	0.45
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Lane Grp Cap (vph)					1376	636		850			845	721
v/s Ratio Prot					c0.23			c0.32			0.09	
v/s Ratio Perm						0.11						0.02
v/c Ratio					0.56	0.27		0.65			0.20	0.05
Uniform Delay, d1					18.5	16.1		14.9			13.4	12.5
Progression Factor					1.00	1.00		0.05			0.94	0.89
Incremental Delay, d2					1.7	1.1		2.8			0.5	0.1
Delay (s)					20.2	17.2		3.6			13.1	11.2
Level of Service					C	B		A			B	B
Approach Delay (s)		0.0			19.3			3.6			12.5	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	709	114	0	0	0	0	424	160	0	135	0
Future Volume (vph)	0	709	114	0	0	0	0	424	160	0	135	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3504	2005					1788	1436		2442	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3504	2005					1788	1436		2442	
Peak-hour factor, PHF	0.92	0.64	0.87	0.92	0.92	0.92	0.92	0.79	0.77	0.92	0.78	0.66
Adj. Flow (vph)	0	1108	131	0	0	0	0	537	208	0	173	0
RTOR Reduction (vph)	0	0	78	0	0	0	0	0	26	0	0	0
Lane Group Flow (vph)	0	1108	53	0	0	0	0	537	182	0	173	0
Heavy Vehicles (%)	0%	2%	1%	2%	2%	2%	0%	2%	8%	0%	2%	2%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		30.6	30.6					33.0	33.0		37.0	
Effective Green, g (s)		32.1	32.1					34.5	34.5		38.5	
Actuated g/C Ratio		0.40	0.40					0.43	0.43		0.48	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Lane Grp Cap (vph)		1405	804					771	619		1175	
v/s Ratio Prot		c0.32						c0.30			0.07	
v/s Ratio Perm			0.03						0.13			
v/c Ratio		0.79	0.07					0.70	0.29		0.15	
Uniform Delay, d1		21.0	14.7					18.5	14.8		11.6	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		4.6	0.2					5.2	1.2		0.3	
Delay (s)		25.5	14.9					23.7	16.0		0.3	
Level of Service		C	B					C	B		A	
Approach Delay (s)		24.4			0.0			21.5			0.3	
Approach LOS		C			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	96	81	115	50	0
Future Vol, veh/h	0	96	81	115	50	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	1	-	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	104	88	125	54	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	213	0	-	0	255	151
Stage 1	-	-	-	-	151	-
Stage 2	-	-	-	-	104	-
Critical Hdwy	4.12	-	-	-	6.82	6.42
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1357	-	-	-	713	888
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	910	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1357	-	-	-	713	888
Mov Cap-2 Maneuver	-	-	-	-	713	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	910	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1357	-	-	-	713	-
HCM Lane V/C Ratio	-	-	-	-	0.076	-
HCM Control Delay (s)	0	-	-	-	10.5	0
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	77	79	81	0	17	17
Future Vol, veh/h	77	79	81	0	17	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	86	88	0	18	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	88	0	-	0	341	88
Stage 1	-	-	-	-	88	-
Stage 2	-	-	-	-	253	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1508	-	-	-	680	975
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1508	-	-	-	641	975
Mov Cap-2 Maneuver	-	-	-	-	641	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1508	-	-	-	641	975
HCM Lane V/C Ratio	0.056	-	-	-	0.029	0.019
HCM Control Delay (s)	7.5	0	-	-	10.8	8.8
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	833	0	83	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	833	0	83	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	905	0	90	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	453	905	0	905	905	452
Stage 1	-	-	-	0	0	-	905	905	-
Stage 2	-	-	-	453	905	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	535	275	-	276	275	555
Stage 1	-	-	-	-	-	-	355	353	-
Stage 2	-	-	-	607	353	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	535	0	-	276	0	555
Mov Cap-2 Maneuver	-	-	-	535	0	-	276	0	-
Stage 1	-	-	-	-	0	-	355	0	-
Stage 2	-	-	-	607	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	13.1	0
HCM LOS		B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	535	-	-	-	-	-
HCM Lane V/C Ratio	0.169	-	-	-	-	-
HCM Control Delay (s)	13.1	0	0	-	-	0
HCM Lane LOS	B	A	A	-	-	A
HCM 95th %tile Q(veh)	0.6	-	-	-	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Vol, veh/h	24	11	0	7	9	14	3	230	15	69	99	28
Future Vol, veh/h	24	11	0	7	9	14	3	230	15	69	99	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	8	-	-	10	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	12	0	8	10	15	3	250	16	75	108	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	550	546	123	544	553	258	138	0	0	266	0	0
Stage 1	273	273	-	265	265	-	-	-	-	-	-	-
Stage 2	277	273	-	279	288	-	-	-	-	-	-	-
Critical Hdwy	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	489	488	937	353	345	737	1446	-	-	1298	-	-
Stage 1	767	716	-	658	613	-	-	-	-	-	-	-
Stage 2	764	716	-	643	593	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	445	456	937	329	323	737	1446	-	-	1298	-	-
Mov Cap-2 Maneuver	445	456	-	329	323	-	-	-	-	-	-	-
Stage 1	765	671	-	657	612	-	-	-	-	-	-	-
Stage 2	735	715	-	592	556	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	13.8	13.8	0.1	2.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1446	-	-	440	448	1298	-	-
HCM Lane V/C Ratio	0.002	-	-	0.074	0.085	0.058	-	-
HCM Control Delay (s)	7.5	0	-	13.8	13.8	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	693	0	0	0	0	0	0	0	130	0	0
Future Vol, veh/h	0	693	0	0	0	0	0	0	0	130	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	753	0	0	0	0	0	0	0	141	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	753	753	376	377	753	0
Stage 1	-	-	-	753	753	-	0	0	-
Stage 2	-	-	-	0	0	-	377	753	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	346	337	622	597	337	-
Stage 1	-	-	-	426	416	-	-	-	-
Stage 2	-	-	-	-	-	-	663	416	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	346	0	622	597	0	-
Mov Cap-2 Maneuver	-	-	-	346	0	-	597	0	-
Stage 1	-	-	-	426	0	-	-	0	-
Stage 2	-	-	-	-	0	-	663	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	12.9
HCM LOS		A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	597	-
HCM Lane V/C Ratio	-	-	-	-	0.237	-
HCM Control Delay (s)	0	0	-	-	12.9	0
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	-	0.9	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	34	17	2	13	39	26	4	355	16	9	168	78
Future Vol, veh/h	34	17	2	13	39	26	4	355	16	9	168	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	60	92	48	50	72	35	67	73	25
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	37	18	8	22	42	54	8	493	46	13	230	312

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	993	968	386	958	1101	516	542	0	0	539	0	0
Stage 1	413	413	-	532	532	-	-	-	-	-	-	-
Stage 2	580	555	-	426	569	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	172	196	631	252	227	571	1037	-	-	1040	-	-
Stage 1	553	532	-	551	545	-	-	-	-	-	-	-
Stage 2	429	443	-	625	525	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	131	192	631	227	222	571	1037	-	-	1040	-	-
Mov Cap-2 Maneuver	131	192	-	227	222	-	-	-	-	-	-	-
Stage 1	549	525	-	547	541	-	-	-	-	-	-	-
Stage 2	355	440	-	588	518	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34	20.4	0.1	0.2
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1037	-	-	131	243	227	338	1040	-	-
HCM Lane V/C Ratio	0.008	-	-	0.282	0.109	0.095	0.286	0.013	-	-
HCM Control Delay (s)	8.5	-	-	42.9	21.6	22.5	19.9	8.5	-	-
HCM Lane LOS	A	-	-	E	C	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.1	0.4	0.3	1.2	0	-	-

Intersection	
Int Delay, s/veh	11.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	15	77	54	4	141	6	28	354	7	7	148	27
Future Vol, veh/h	15	77	54	4	141	6	28	354	7	7	148	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	65	60	69	50	72	31	69	70	85	85	73	75
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	5	0
Mvmt Flow	23	128	78	8	196	19	41	506	8	8	203	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	936	832	221	932	846	510	239	0	0	514	0	0
Stage 1	237	237	-	591	591	-	-	-	-	-	-	-
Stage 2	699	595	-	341	255	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	274	337	834	262	316	576	1340	-	-	1062	-	-
Stage 1	791	732	-	513	514	-	-	-	-	-	-	-
Stage 2	469	529	-	691	710	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	125	324	834	160	304	576	1340	-	-	1062	-	-
Mov Cap-2 Maneuver	125	324	-	160	304	-	-	-	-	-	-	-
Stage 1	767	726	-	497	498	-	-	-	-	-	-	-
Stage 2	267	513	-	512	705	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.3	37	0.6	0.3
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1340	-	-	125	422	160	317	1062	-	-
HCM Lane V/C Ratio	0.03	-	-	0.185	0.49	0.05	0.679	0.008	-	-
HCM Control Delay (s)	7.8	-	-	40.2	21.4	28.7	37.3	8.4	-	-
HCM Lane LOS	A	-	-	E	C	D	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	2.6	0.2	4.6	0	-	-

Intersection	
Int Delay, s/veh	22.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	1	1	118	2	104	1	280	140	83	128	0
Future Vol, veh/h	1	1	1	118	2	104	1	280	140	83	128	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	10	-	-	-9	-	-	1	-
Peak Hour Factor	25	25	25	81	50	64	25	81	65	76	88	92
Heavy Vehicles, %	0	0	0	0	0	3	0	0	0	8	1	2
Mvmt Flow	4	4	4	146	4	163	4	346	215	109	145	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	801	718	145	722	718	346	145	0	0	346	0	0
Stage 1	364	364	-	354	354	-	-	-	-	-	-	-
Stage 2	437	354	-	368	364	-	-	-	-	-	-	-
Critical Hdwy	6.1	5.5	5.7	9.1	8.5	7.23	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.327	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	381	436	926	231	240	631	1450	-	-	1180	-	-
Stage 1	729	694	-	548	521	-	-	-	-	-	-	-
Stage 2	680	699	-	535	513	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	258	394	926	211	217	631	1450	-	-	1180	-	-
Mov Cap-2 Maneuver	258	394	-	211	217	-	-	-	-	-	-	-
Stage 1	726	630	-	546	519	-	-	-	-	-	-	-
Stage 2	499	696	-	480	466	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.3	78.6	0.1	3.6
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1450	-	-	400	323	1180	-	-
HCM Lane V/C Ratio	0.003	-	-	0.03	0.966	0.093	-	-
HCM Control Delay (s)	7.5	0	-	14.3	78.6	8.4	-	-
HCM Lane LOS	A	A	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	10.2	0.3	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	6	9	0	0	65	27	564	78	85	182	18
Future Vol, veh/h	13	6	9	0	0	65	27	564	78	85	182	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	0	150	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	50	42	40	60	50	64	55	88	66	59	89	57
Heavy Vehicles, %	0	0	0	0	0	0	0	1	5	0	3	0
Mvmt Flow	26	14	23	0	0	102	49	641	118	144	204	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	927	1365	118	1196	1322	380	236	0	0	759	0	0
Stage 1	508	508	-	798	798	-	-	-	-	-	-	-
Stage 2	419	857	-	398	524	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.1	7.2	7.1	6.1	6.7	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.1	-	6.1	5.1	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	194	118	909	164	183	637	1343	-	-	862	-	-
Stage 1	479	498	-	382	438	-	-	-	-	-	-	-
Stage 2	548	327	-	632	565	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	138	95	909	121	147	637	1343	-	-	862	-	-
Mov Cap-2 Maneuver	138	95	-	121	147	-	-	-	-	-	-	-
Stage 1	462	415	-	368	422	-	-	-	-	-	-	-
Stage 2	444	315	-	496	471	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.4	11.7	0.5	3.8
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1343	-	-	138	210	637	862	-	-
HCM Lane V/C Ratio	0.037	-	-	0.188	0.175	0.159	0.167	-	-
HCM Control Delay (s)	7.8	-	-	37	25.7	11.7	10	-	-
HCM Lane LOS	A	-	-	E	D	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.6	0.6	0.6	-	-

HCM 2010 Signalized Intersection Summary
1: McCLELLAN AVE & GROVE ST

4/9/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	61	21	190	89	19	38	300	59	38	520	71
Future Volume (veh/h)	43	61	21	190	89	19	38	300	59	38	520	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1808	1862	1862	1928	1928	1928	1843	1770	1843	1938	1938	1938
Adj Flow Rate, veh/h	73	73	27	284	124	40	45	357	73	40	591	83
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.59	0.83	0.79	0.67	0.72	0.47	0.85	0.84	0.81	0.94	0.88	0.86
Percent Heavy Veh, %	3	0	0	0	0	0	0	5	5	0	0	0
Cap, veh/h	590	602	223	680	649	209	283	1055	213	387	1228	172
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1181	1297	480	1335	1398	451	753	2787	564	993	3244	455
Grp Volume(v), veh/h	73	0	100	284	0	164	45	214	216	40	335	339
Grp Sat Flow(s),veh/h/ln	1181	0	1777	1335	0	1849	753	1681	1670	993	1841	1858
Q Serve(g_s), s	2.7	0.0	2.2	10.7	0.0	3.7	3.4	6.3	6.5	2.1	9.7	9.7
Cycle Q Clear(g_c), s	6.4	0.0	2.2	13.0	0.0	3.7	13.1	6.3	6.5	8.6	9.7	9.7
Prop In Lane	1.00		0.27	1.00		0.24	1.00		0.34	1.00		0.24
Lane Grp Cap(c), veh/h	590	0	825	680	0	858	283	636	632	387	697	703
V/C Ratio(X)	0.12	0.00	0.12	0.42	0.00	0.19	0.16	0.34	0.34	0.10	0.48	0.48
Avail Cap(c_a), veh/h	590	0	825	680	0	858	283	636	632	387	697	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	10.6	14.3	0.0	11.0	21.5	15.5	15.5	18.6	16.5	16.5
Incr Delay (d2), s/veh	0.4	0.0	0.3	1.9	0.0	0.5	1.2	1.4	1.5	0.5	2.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.2	4.3	0.0	2.0	0.8	3.2	3.2	0.6	5.3	5.4
LnGrp Delay(d),s/veh	13.3	0.0	10.9	16.2	0.0	11.5	22.7	16.9	17.0	19.1	18.9	18.9
LnGrp LOS	B		B	B		B	C	B	B	B	B	B
Approach Vol, veh/h		173			448			475			714	
Approach Delay, s/veh		11.9			14.5			17.5			18.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.0		38.0		32.0		38.0
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5
Max Green Setting (Gmax), s		26.5		32.5		26.5		32.5
Max Q Clear Time (g_c+I1), s		15.1		8.4		11.7		15.0
Green Ext Time (p_c), s		5.4		2.7		6.3		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	491	79	175	742	113	188	355	112	119	499	176
Future Volume (veh/h)	122	491	79	175	742	113	188	355	112	119	499	176
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1900	1821	1938
Adj Flow Rate, veh/h	133	534	86	190	807	123	204	386	122	129	542	191
Adj No. of Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	8	8
Cap, veh/h	248	825	132	357	907	138	339	861	269	385	737	259
Arrive On Green	0.07	0.27	0.27	0.10	0.29	0.29	0.03	0.11	0.11	0.07	0.29	0.29
Sat Flow, veh/h	1774	3055	490	1774	3080	469	1774	2656	830	1810	2513	882
Grp Volume(v), veh/h	133	308	312	190	464	466	204	256	252	129	373	360
Grp Sat Flow(s),veh/h/ln	1774	1770	1776	1774	1770	1780	1774	1770	1716	1810	1730	1665
Q Serve(g_s), s	4.3	12.3	12.4	6.0	20.0	20.0	6.1	10.8	11.0	3.9	15.5	15.6
Cycle Q Clear(g_c), s	4.3	12.3	12.4	6.0	20.0	20.0	6.1	10.8	11.0	3.9	15.5	15.6
Prop In Lane	1.00		0.28	1.00		0.26	1.00		0.48	1.00		0.53
Lane Grp Cap(c), veh/h	248	478	480	357	521	524	339	573	556	385	507	488
V/C Ratio(X)	0.54	0.65	0.65	0.53	0.89	0.89	0.60	0.45	0.45	0.34	0.73	0.74
Avail Cap(c_a), veh/h	252	487	488	361	531	534	349	573	556	405	507	488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	25.8	25.8	18.9	27.0	27.0	19.8	29.0	29.1	18.0	25.5	25.5
Incr Delay (d2), s/veh	2.2	2.9	3.0	1.5	16.7	16.6	2.8	2.5	2.7	0.5	9.1	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.4	6.5	3.0	12.2	12.3	3.2	5.7	5.7	2.0	8.6	8.4
LnGrp Delay(d),s/veh	23.3	28.7	28.8	20.4	43.7	43.6	22.5	31.5	31.7	18.5	34.6	35.1
LnGrp LOS	C	C	C	C	D	D	C	C	C	B	C	D
Approach Vol, veh/h		753			1120			712			862	
Approach Delay, s/veh		27.8			39.7			29.0			32.4	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	31.9	11.4	27.6	11.5	29.5	9.4	29.6
Change Period (Y+Rc), s	3.5	* 6	3.5	* 6	3.5	* 6	3.5	* 6
Max Green Setting (Gmax), s	6.5	* 24	8.1	* 22	8.5	* 22	6.1	* 24
Max Q Clear Time (g_c+I1), s	5.9	13.0	8.0	14.4	8.1	17.6	6.3	22.0
Green Ext Time (p_c), s	0.0	5.7	0.0	5.1	0.0	3.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	503	91	24	478	26	50	320	31	37	267	105
Future Volume (veh/h)	85	503	91	24	478	26	50	320	31	37	267	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1872	1946	1900	1900	1976	1938	1904	2016	1769	1843	1917
Adj Flow Rate, veh/h	96	541	110	27	562	36	68	405	48	45	334	113
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.89	0.93	0.83	0.88	0.85	0.72	0.73	0.79	0.65	0.83	0.80	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	0	0
Cap, veh/h	289	707	144	244	828	53	260	617	73	257	487	165
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	820	1509	307	793	1766	113	977	1671	198	887	1318	446
Grp Volume(v), veh/h	96	0	651	27	0	598	68	0	453	45	0	447
Grp Sat Flow(s),veh/h/ln	820	0	1816	793	0	1880	977	0	1869	887	0	1764
Q Serve(g_s), s	6.9	0.0	19.8	1.9	0.0	16.5	4.2	0.0	13.4	3.0	0.0	14.3
Cycle Q Clear(g_c), s	23.4	0.0	19.8	21.7	0.0	16.5	18.5	0.0	13.4	16.4	0.0	14.3
Prop In Lane	1.00		0.17	1.00		0.06	1.00		0.11	1.00		0.25
Lane Grp Cap(c), veh/h	289	0	851	244	0	881	260	0	690	257	0	652
V/C Ratio(X)	0.33	0.00	0.77	0.11	0.00	0.68	0.26	0.00	0.66	0.18	0.00	0.69
Avail Cap(c_a), veh/h	331	0	943	284	0	976	260	0	690	257	0	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	14.7	23.7	0.0	13.8	25.5	0.0	17.5	24.3	0.0	17.7
Incr Delay (d2), s/veh	0.7	0.0	3.4	0.2	0.0	1.7	2.4	0.0	4.8	1.5	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	10.6	0.4	0.0	8.9	1.3	0.0	7.8	0.8	0.0	8.0
LnGrp Delay(d),s/veh	23.6	0.0	18.1	23.9	0.0	15.5	28.0	0.0	22.3	25.8	0.0	23.5
LnGrp LOS	C		B	C		B	C		C	C		C
Approach Vol, veh/h		747			625			521			492	
Approach Delay, s/veh		18.8			15.8			23.1			23.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.0		36.6		30.0		36.6
Change Period (Y+Rc), s		* 5.4		* 5.4		* 5.4		* 5.4
Max Green Setting (Gmax), s		* 25		* 35		* 25		* 35
Max Q Clear Time (g_c+I1), s		20.5		25.4		18.4		23.7
Green Ext Time (p_c), s		2.3		5.6		3.2		6.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
65: McCLELLEN AVE/McClellan & US 41 WB

4/9/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	1366	172	0	376	0	0	448	266
Future Volume (vph)	0	0	0	0	1366	172	0	376	0	0	448	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)					4.9	4.9		3.2			7.2	7.2
Lane Util. Factor					0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes					1.00	1.00		1.00			1.00	0.99
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			1.00	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					3497	1555		1710			1927	1644
Flt Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					3497	1555		1710			1927	1644
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.91	0.74	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	0	0	0	1501	232	0	470	0	0	487	313
RTOR Reduction (vph)	0	0	0	0	0	122	0	0	0	0	0	29
Lane Group Flow (vph)	0	0	0	0	1501	110	0	470	0	0	487	284
Confl. Peds. (#/hr)												1
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	4	0	0	1	2	0	11	2	0	5	1
Turn Type					NA	Perm		NA			NA	Perm
Protected Phases					1			3			2	
Permitted Phases						1					2	2
Actuated Green, G (s)					36.6	36.6		31.0			27.0	27.0
Effective Green, g (s)					38.1	38.1		33.8			29.8	29.8
Actuated g/C Ratio					0.48	0.48		0.42			0.37	0.37
Clearance Time (s)					6.4	6.4		6.0			10.0	10.0
Vehicle Extension (s)					3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)					1665	740		722			717	612
v/s Ratio Prot					c0.43			c0.27			0.25	
v/s Ratio Perm						0.07						0.17
v/c Ratio					0.90	0.15		0.65			0.68	0.46
Uniform Delay, d1					19.2	11.8		18.4			21.1	19.0
Progression Factor					1.00	1.00		0.03			0.73	0.64
Incremental Delay, d2					8.3	0.4		3.0			4.3	2.1
Delay (s)					27.6	12.2		3.6			19.7	14.3
Level of Service					C	B		A			B	B
Approach Delay (s)		0.0			25.5			3.6			17.6	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.1
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1220	416	0	0	0	0	376	247	0	448	0
Future Volume (vph)	0	1220	416	0	0	0	0	376	247	0	448	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	20	12	20	20	20	20	12	12	12	20	20	20
Grade (%)		2%			2%			8%			-7%	
Total Lost time (s)		4.9	4.9					8.5	8.5		4.5	
Lane Util. Factor		0.95	1.00					1.00	1.00		1.00	
Frt		1.00	0.85					1.00	0.85		1.00	
Flt Protected		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)		3539	2025					1788	1505		2491	
Flt Permitted		1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)		3539	2025					1788	1505		2491	
Peak-hour factor, PHF	0.92	0.95	0.91	0.92	0.92	0.92	0.92	0.80	0.87	0.92	0.92	0.85
Adj. Flow (vph)	0	1284	457	0	0	0	0	470	284	0	487	0
RTOR Reduction (vph)	0	0	119	0	0	0	0	0	30	0	0	0
Lane Group Flow (vph)	0	1284	338	0	0	0	0	470	254	0	487	0
Heavy Vehicles (%)	0%	1%	0%	2%	2%	2%	0%	2%	3%	0%	0%	0%
Turn Type		NA	Perm					NA	Perm		NA	
Protected Phases		1						2			3	
Permitted Phases			1					2	2		3	
Actuated Green, G (s)		36.6	36.6					27.0	27.0		31.0	
Effective Green, g (s)		38.1	38.1					28.5	28.5		32.5	
Actuated g/C Ratio		0.48	0.48					0.36	0.36		0.41	
Clearance Time (s)		6.4	6.4					10.0	10.0		6.0	
Vehicle Extension (s)		3.0	3.0					3.0	3.0		3.0	
Lane Grp Cap (vph)		1685	964					636	536		1011	
v/s Ratio Prot		c0.36						c0.26			0.20	
v/s Ratio Perm			0.17						0.17			
v/c Ratio		0.76	0.35					0.74	0.47		0.48	
Uniform Delay, d1		17.2	13.2					22.5	19.9		17.5	
Progression Factor		1.00	1.00					1.00	1.00		0.00	
Incremental Delay, d2		3.3	1.0					7.5	3.0		1.2	
Delay (s)		20.5	14.2					30.0	22.9		1.2	
Level of Service		C	B					C	C		A	
Approach Delay (s)		18.9			0.0			27.4			1.2	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.4
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	192	64	112	255	0
Future Vol, veh/h	0	192	64	112	255	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	50
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	1	-	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	209	70	122	277	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	191	0	-	0	339	130
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	209	-
Critical Hdwy	4.12	-	-	-	6.82	6.42
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1383	-	-	-	632	913
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	807	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1383	-	-	-	632	913
Mov Cap-2 Maneuver	-	-	-	-	632	-
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	807	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1383	-	-	-	632	-
HCM Lane V/C Ratio	-	-	-	-	0.439	-
HCM Control Delay (s)	0	-	-	-	15.1	0
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0	-	-	-	2.2	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	75	107	64	0	85	85
Future Vol, veh/h	75	107	64	0	85	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	3	-5	-	-2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	116	70	0	92	92

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	349	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	279	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1531	-	-	-	674	997
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1531	-	-	-	636	997
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	747	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1531	-	-	-	636	997
HCM Lane V/C Ratio	0.053	-	-	-	0.145	0.093
HCM Control Delay (s)	7.5	0	-	-	11.6	9
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5	0.3

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	0	1282	0	226	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	1282	0	226	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	2	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	1393	0	246	0	0	0	0	0

Major/Minor	Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	697	1393	0	1393	1393	696
Stage 1	-	-	-	0	0	-	1393	1393	-
Stage 2	-	-	-	697	1393	-	0	0	-
Critical Hdwy	-	-	-	6.84	6.54	-	6.84	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	5.84	5.54	-
Critical Hdwy Stg 2	-	-	-	5.84	5.54	-	-	-	-
Follow-up Hdwy	-	-	-	3.52	4.02	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	-	-	-	375	141	-	133	141	384
Stage 1	-	-	-	-	-	-	195	207	-
Stage 2	-	-	-	455	207	-	-	-	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	375	0	-	133	0	384
Mov Cap-2 Maneuver	-	-	-	375	0	-	133	0	-
Stage 1	-	-	-	-	0	-	195	0	-
Stage 2	-	-	-	455	0	-	-	0	-

Approach	WB	NB	SB
HCM Control Delay, s	0	31.1	0
HCM LOS		D	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	375	-	-	-	-	-
HCM Lane V/C Ratio	0.655	-	-	-	-	-
HCM Control Delay (s)	31.1	0	0	-	-	0
HCM Lane LOS	D	A	A	-	-	A
HCM 95th %tile Q(veh)	4.5	-	-	-	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Vol, veh/h	33	9	3	19	8	63	1	146	22	62	316	37
Future Vol, veh/h	33	9	3	19	8	63	1	146	22	62	316	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-3	-	-	8	-	-	10	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	10	3	21	9	68	1	159	24	67	343	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	709	683	364	678	691	171	384	0	0	183	0	0
Stage 1	498	498	-	173	173	-	-	-	-	-	-	-
Stage 2	211	185	-	505	518	-	-	-	-	-	-	-
Critical Hdwy	6.52	5.92	5.92	8.72	8.12	7.02	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.52	4.92	-	7.72	7.12	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	393	416	702	271	270	840	1174	-	-	1392	-	-
Stage 1	602	591	-	768	700	-	-	-	-	-	-	-
Stage 2	819	770	-	439	424	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	335	390	702	252	253	840	1174	-	-	1392	-	-
Mov Cap-2 Maneuver	335	390	-	252	253	-	-	-	-	-	-	-
Stage 1	601	554	-	767	699	-	-	-	-	-	-	-
Stage 2	742	769	-	403	398	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	16.6	14.1	0	1.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1174	-	-	494	358	1392	-	-
HCM Lane V/C Ratio	0.001	-	-	0.198	0.137	0.048	-	-
HCM Control Delay (s)	8.1	0	-	14.1	16.6	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.5	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1508	0	0	0	0	0	0	0	128	0	0
Future Vol, veh/h	0	1508	0	0	0	0	0	0	0	128	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	2	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1639	0	0	0	0	0	0	0	139	0	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	0	0	0	1639	1639	819	820	1639	0
Stage 1	-	-	-	1639	1639	-	0	0	-
Stage 2	-	-	-	0	0	-	820	1639	-
Critical Hdwy	-	-	-	6.84	6.54	6.94	6.84	6.54	-
Critical Hdwy Stg 1	-	-	-	5.84	5.54	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.84	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	-	-	-	91	99	319	313	99	-
Stage 1	-	-	-	144	157	-	-	-	-
Stage 2	-	-	-	-	-	-	393	157	-
Platoon blocked, %		-	-						
Mov Cap-1 Maneuver	-	-	-	91	0	319	313	0	-
Mov Cap-2 Maneuver	-	-	-	91	0	-	313	0	-
Stage 1	-	-	-	144	0	-	-	0	-
Stage 2	-	-	-	-	0	-	393	0	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	25.4
HCM LOS		A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	-	-	313	-
HCM Lane V/C Ratio	-	-	-	-	0.445	-
HCM Control Delay (s)	0	0	-	-	25.4	0
HCM Lane LOS	A	A	-	-	D	A
HCM 95th %tile Q(veh)	-	-	-	-	2.2	-

Intersection	
Int Delay, s/veh	78

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	170	86	1	58	39	34	1	201	8	11	289	76
Future Vol, veh/h	170	86	1	58	39	34	1	201	8	11	289	76
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	5	-	-	-1	-	-	7	-	-	1	-
Peak Hour Factor	92	92	25	41	25	75	25	79	44	50	79	25
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	0	0
Mvmt Flow	185	93	4	141	156	45	4	254	18	22	366	304

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	934	843	518	883	986	264	670	0	0	273	0	0
Stage 1	562	562	-	272	272	-	-	-	-	-	-	-
Stage 2	372	281	-	611	714	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	6.7	6.9	6.3	6.1	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	191	239	523	282	264	785	930	-	-	1302	-	-
Stage 1	441	439	-	750	699	-	-	-	-	-	-	-
Stage 2	589	631	-	501	456	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 92	234	523	190	258	785	930	-	-	1302	-	-
Mov Cap-2 Maneuver	~ 92	234	-	190	258	-	-	-	-	-	-	-
Stage 1	439	432	-	747	696	-	-	-	-	-	-	-
Stage 2	429	628	-	383	448	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 380.8	48.6	0.1	0.2
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	930	-	-	92	239	190	304	1302	-	-
HCM Lane V/C Ratio	0.004	-	-	2.009	0.408	0.745	0.662	0.017	-	-
HCM Control Delay (s)	8.9	-	-	$ 565.8	30.1	64.7	37.3	7.8	-	-
HCM Lane LOS	A	-	-	F	D	F	E	A	-	-
HCM 95th %tile Q(veh)	0	-	-	15.9	1.9	4.9	4.4	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	162.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	296	138	13	140	13	16	185	2	18	310	20
Future Vol, veh/h	13	296	138	13	140	13	16	185	2	18	310	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	-1	-	-	-7	-
Peak Hour Factor	60	62	69	63	69	60	58	83	50	37	71	56
Heavy Vehicles, %	8	0	0	0	0	0	7	1	0	0	0	0
Mvmt Flow	22	477	200	21	203	22	28	223	4	49	437	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	944	834	454	1170	850	225	472	0	0	227	0	0
Stage 1	552	552	-	280	280	-	-	-	-	-	-	-
Stage 2	392	282	-	890	570	-	-	-	-	-	-	-
Critical Hdwy	6.78	6.1	6	6.9	6.3	6.1	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.78	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4	3.3	3.5	4	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	262	~ 336	626	183	314	825	1064	-	-	1353	-	-
Stage 1	540	551	-	743	693	-	-	-	-	-	-	-
Stage 2	648	703	-	357	525	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	109	~ 315	626	-	295	825	1064	-	-	1353	-	-
Mov Cap-2 Maneuver	109	~ 315	-	-	295	-	-	-	-	-	-	-
Stage 1	526	531	-	723	675	-	-	-	-	-	-	-
Stage 2	430	685	-	24	506	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 399.9		0.9	0.7
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1064	-	-	109	369	-	314	1353	-	-
HCM Lane V/C Ratio	0.026	-	-	0.199	1.836	-	0.715	0.036	-	-
HCM Control Delay (s)	8.5	-	-	46	$ 411.2	-	40.7	7.8	-	-
HCM Lane LOS	A	-	-	E	F	-	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	44.3	-	5.2	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	84

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	2	2	195	0	62	3	147	88	101	359	1
Future Vol, veh/h	0	2	2	195	0	62	3	147	88	101	359	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-5	-	-	10	-	-	-9	-	-	1	-
Peak Hour Factor	92	50	50	88	92	96	75	93	83	89	71	25
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	0	0
Mvmt Flow	0	4	4	222	0	65	4	158	106	113	506	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	933	901	508	905	903	158	510	0	0	158	0	0
Stage 1	735	735	-	166	166	-	-	-	-	-	-	-
Stage 2	198	166	-	739	737	-	-	-	-	-	-	-
Critical Hdwy	6.1	5.5	5.7	9.1	8.5	7.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.1	4.5	-	8.1	7.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	322	360	610	~ 157	169	854	1065	-	-	1434	-	-
Stage 1	508	525	-	767	697	-	-	-	-	-	-	-
Stage 2	854	801	-	273	284	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	279	330	610	~ 145	155	854	1065	-	-	1434	-	-
Mov Cap-2 Maneuver	279	330	-	~ 145	155	-	-	-	-	-	-	-
Stage 1	506	484	-	764	694	-	-	-	-	-	-	-
Stage 2	786	798	-	248	262	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	$ 344.5	0.1	1.4
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1065	-	-	428	178	1434	-	-
HCM Lane V/C Ratio	0.004	-	-	0.019	1.608	0.079	-	-
HCM Control Delay (s)	8.4	0	-	13.6	$ 344.5	7.7	-	-
HCM Lane LOS	A	A	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	19.1	0.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	35	16	137	0	0	184	34	436	61	89	576	86
Future Vol, veh/h	35	16	137	0	0	184	34	436	61	89	576	86
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	0	150	-	-	125	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	5	-	-	-4	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	17	149	0	0	200	37	474	66	97	626	93

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1177	1480	360	1096	1494	270	720	0	0	540	0	0
Stage 1	866	866	-	581	581	-	-	-	-	-	-	-
Stage 2	311	614	-	515	913	-	-	-	-	-	-	-
Critical Hdwy	8.14	7.14	7.24	7.14	6.14	6.74	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	7.14	6.14	-	6.14	5.14	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.14	6.14	-	6.14	5.14	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	120	97	618	190	144	739	877	-	-	1025	-	-
Stage 1	272	319	-	498	531	-	-	-	-	-	-	-
Stage 2	640	434	-	541	388	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	79	84	618	109	125	739	877	-	-	1025	-	-
Mov Cap-2 Maneuver	79	84	-	109	125	-	-	-	-	-	-	-
Stage 1	261	289	-	477	509	-	-	-	-	-	-	-
Stage 2	447	416	-	349	351	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.5	11.7	0.6	1.1
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	877	-	-	79	371	739	1025	-	-
HCM Lane V/C Ratio	0.042	-	-	0.482	0.448	0.271	0.094	-	-
HCM Control Delay (s)	9.3	-	-	87.2	22.4	11.7	8.9	-	-
HCM Lane LOS	A	-	-	F	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2	2.2	1.1	0.3	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	594	38	38	591	85	85
Future Vol, veh/h	594	38	38	591	85	85
Conflicting Peds, #/hr	0	5	5	0	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	286	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	646	41	41	642	92	92

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	690	0	1394	674
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	905	-	156	455
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	902	-	148	452
Mov Cap-2 Maneuver	-	-	-	-	286	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	455	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	26.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	350	-	-	902	-
HCM Lane V/C Ratio	0.528	-	-	0.046	-
HCM Control Delay (s)	26.2	-	-	9.2	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	2.9	-	-	0.1	-

APPENDIX D
DATA RECEIVED FROM DLP AND MDOT

Littlejohn
An S&ME Company

Memorandum

DATE: OCTOBER 7, 2015 **PROJECT NO.:** 20130197

TO: JEFF HEINZE; PHILLIP PIERCY

FROM: KOK WAN MAH, P.E, PTOE

CC: BRENT LACY

SUBJECT: MARQUETTE HOSPITAL – WASHINGTON ST ANALYSIS

Introduction

Marquette Hospital in Marquette, Michigan is seeking to relocate from its existing facility on College Avenue to a site on US 41 between McClellan Avenue and 7th Street. Access to the new hospital campus will include a main entrance on US 41, West Baraga Avenue, West Spring Street and West Washington Street.

The current development program for the hospital includes 665 KSF of hospital use, 218 KSF of clinical services and 195 KSF of medical office building. The site will also include a helipad on the northeast portion of the site, adjacent to the proposed emergency department. In addition to surface parking lots, a garage is planned on the west side of the hospital.

The purpose of this technical memorandum is to provide a summary of the projected trips generated for the site and anticipated distribution to each of the access points for the medical campus.

Analysis and Findings

Trip generation is calculated from rates and formulas contained in the *ITE Trip Generation Manual, 9th Edition* for hospital, clinic and medical office uses and summarized in ***Table 1***. The trip generation is broken down by the phase of development with a total at the bottom. The intensities for each use were taken from the Master Plan Development Summary, dated August 31, 2015. For the purpose of this analysis, the trip generation for the buildout program was used.

Based on input from the project team, we expect approximately 50% of hospital-related traffic to use the main entrance on US 41. Another 15% (30% total) is assigned to both Baraga Avenue and Spring Street. The remaining 20% is split between the US 41 west access and the proposed Washington Street access. A summary of the trip assignment for each access driveway is shown in ***Table 2***.

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Table 1 - Summary of Trip Generation

Marquette Hospital

	Land Use	ITE Code	Intensity	Daily Trip Ends	AM Peak Period					PM Peak Period				
						In		Out			In		Out	
					Total	%	Trips	%	Trips	Total	%	Trips	%	Trips
Phase 1	Hospital	610	535 KSF	7,073	508	63%	320	37%	188	498	38%	189	62%	308
	Clinic	630	218 KSF	6,856	**	**	**	**	**	1,129	28%	316	72%	813
	Medical Office	720	0 KSF	0	0	79%	0	21%	0	0	28%	0	72%	0
	Total (Phase 1)			13,929	508		320		188	1,627		505		1,122
Phase 2	Hospital	610	130 KSF	1,719	124	63%	78	37%	46	121	38%	46	62%	75
	Clinic	630	0 KSF	**	**	**	**	**	**	**	**	**	**	**
	Medical Office	720	195 KSF	7,759	466	79%	368	21%	98	696	28%	195	72%	501
	Total (Phase 2)			9,477	590		446		144	817		241		576
Total	Hospital	610	665 KSF	8,791	632	63%	398	37%	234	618	38%	235	62%	383
	Clinic	630	218 KSF	6,856	**	**	**	**	**	1,129	28%	316	72%	813
	Medical Office	720	195 KSF	7,759	466	79%	368	21%	98	696	28%	195	72%	501
	Total			23,406	1,098		766		332	2,444		746		1,698

Source: ITE Trip Generation Manual, 9th Edition; Littlejohn

10/2/2015

Table 2 – Project Trip Distribution

Access	Distribution	AM In	AM Out	PM In	PM Out
US 41 Main access	50.0%	383	166	373	849
Baraga Avenue	15.0%	115	50	112	255
Spring Street	15.0%	115	50	112	255
US 41 west access	10.0%	77	33	75	170
Washington Street	10.0%	77	33	75	170
Total		**766**	**332**	**746**	**1698**

Further analysis will need to be conducted to assess the impacts that the trips associated with the hospital may have at these intersections and adjacent roadway segments.

MDOT
Michigan Department of Transportation

OFFICE MEMORANDUM

DATE: November 13, 2015

TO: Rob Tervo, Superior Region

FROM: Amy Lipset, Statewide Model Unit

SUBJECT: TAR #2928A: US-41/M-28, CS 52042

Traffic Information

The following charts contain the requested turning movement information for US-41/M-28 from Front Street to McClellan Street (MP 3.5 – 6.5) in Marquette County. Current traffic volumes were calculated from counts provided from a consultant that were collected in 2013. A growth rate of 0.5% was used to calculate future traffic volume. This number is based on previous analysis in this location. If you have any questions regarding this traffic analysis, please contact me at 517.373.2909.

Front Street AT US-41/M-28

Turn Movement Diagram:

2018 AM Peak
7:15 - 8:15

Leg 1: Front Street
North Leg

		TOTAL	
	SB	824	NB
	228		596
84	144	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	677		
TOTAL	1102		146	LEFT
	EB	425	0	THRU
			279	RIGHT

Leg 3: Front Street
South Leg

	LEFT	THRU	RIGHT
	593	450	0
423		1043	
SB	1466	NB	
	TOTAL		

Front Street AT US-41/M-28

Turn Movement Diagram:

2038 AM Peak

Leg 1: Front Street
North Leg

		TOTAL	
	SB	910	NB
	252		658
93	159	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	748		
TOTAL	1218		161	LEFT
	EB	470	0	THRU
			309	RIGHT

Leg 3: Front Street
South Leg

	LEFT	THRU	RIGHT
	655	497	0
467		1152	
SB	1620	NB	
	TOTAL		

Front Street AT US-41/M-28

Turn Movement Diagram:

2018 Mid-Day
12:00 - 1:00

Leg 1: Front Street
North Leg

		TOTAL	
	SB	802	NB
	378		424
151	227	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	566		
TOTAL	1170		153	LEFT
	EB	603	0	THRU
			450	RIGHT

Leg 3: Front Street
South Leg

	LEFT	THRU	RIGHT
	415	270	0
677		686	
SB	1363	NB	
	TOTAL		

Front Street AT US-41/M-28

Turn Movement Diagram:

2038 Mid-Day

Leg 1: Front Street
North Leg

		TOTAL	
	SB	886	NB
	418		468
167	251	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	626		
TOTAL	1293		169	LEFT
	EB	667	0	THRU
			497	RIGHT

Leg 3: Front Street
South Leg

	LEFT	THRU	RIGHT
	459	299	0
748		758	
SB	1506	NB	
	TOTAL		

Front Street AT US-41/M-28

Turn Movement Diagram:

2018 PM Peak
4:30 - 5:30

Leg 1: Front Street
North Leg

		TOTAL	
	SB	1240	NB
	707		532
229	479	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	664		
TOTAL	1629		193	LEFT
	EB	965	0	THRU
			772	RIGHT

Leg 3: Front Street
South Leg

	LEFT	THRU	RIGHT
	436	339	0
1250		775	
SB	2026	NB	
	TOTAL		

Front Street AT US-41/M-28

Turn Movement Diagram:

2038 PM Peak

Leg 1: Front Street
North Leg

		TOTAL	
	SB	1370	NB
	782		588
253	529	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	734		
TOTAL	1800		213	LEFT
	EB	1066	0	THRU
			853	RIGHT

Leg 3: Front Street
South Leg

	LEFT	THRU	RIGHT
	481	375	0
1382		856	
SB	2238	NB	
	TOTAL		

Grove/7th Streets AT US-41/M-28

Turn Movement Diagram:

2018 AM Peak
7:15 - 8:15

Leg 1: 7th Street
North Leg

		TOTAL	
	SB	585	NB
	201		384
116	65	21	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	679		
TOTAL	1217		113	LEFT
	EB	538	370	THRU
			55	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	98			
THRU	543	677	WB	
LEFT	35		1102	TOTAL
		425	EB	

Leg 3: Grove Street
South Leg

	LEFT	THRU	RIGHT
	19	173	35
155		228	
SB	382	NB	
	TOTAL		

Grove/7th Streets AT US-41/M-28

Turn Movement Diagram:

2038 AM Peak

Leg 1: 7th Street
North Leg

		TOTAL	
	SB	647	NB
	222		425
128	71	23	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	750		
TOTAL	1345		125	LEFT
	EB	595	409	THRU
			61	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	109			
THRU	600	748	WB	
LEFT	39		1218	TOTAL
		470	EB	

Leg 3: Grove Street
South Leg

	LEFT	THRU	RIGHT
	22	191	39
171		251	
SB	423	NB	
	TOTAL		

Grove/7th Streets AT US-41/M-28

Turn Movement Diagram:

2018 Mid-Day
12:00 - 1:00

Leg 1: 7th Street
North Leg

		TOTAL	
	SB	531	NB
	290		241
156	100	34	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	670		
TOTAL	1350		119	LEFT
	EB	680	528	THRU
			33	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	38			
THRU	488	565	WB	
LEFT	39		1171	TOTAL
		606	EB	

Leg 3: Grove Street
South Leg

	LEFT	THRU	RIGHT
	26	84	44
172		154	
SB	326	NB	
	TOTAL		

Grove/7th Streets AT US-41/M-28

Turn Movement Diagram:

2038 Mid-Day

Leg 1: 7th Street
North Leg

		TOTAL	
	SB	587	NB
	321		266
172	111	38	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	740		
TOTAL	1491		132	LEFT
	EB	751	583	THRU
			37	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	42			
THRU	539	624	WB	
LEFT	43		1294	TOTAL
		670	EB	

Leg 3: Grove Street
South Leg

	LEFT	THRU	RIGHT
	28	93	49
190		170	
SB	360	NB	
	TOTAL		

Grove/7th Streets AT US-41/M-28

Turn Movement Diagram:

2018 PM Peak
4:30 - 5:30

Leg 1: 7th Street
North Leg

		TOTAL	
	SB	641	NB
	427		215
195	162	70	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	775		
TOTAL	1702		73	LEFT
	EB	927	813	THRU
			41	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	40			
THRU	559	664	WB	
LEFT	65		1628	TOTAL
		965	EB	

Leg 3: Grove Street
South Leg

	LEFT	THRU	RIGHT
	22	102	81
268		205	
SB	473	NB	
	TOTAL		

Grove/7th Streets AT US-41/M-28

Turn Movement Diagram:

2038 PM Peak

Leg 1: 7th Street
North Leg

		TOTAL	
	SB	708	NB
	471		237
215	179	77	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	857		
TOTAL	1881		80	LEFT
	EB	1024	899	THRU
			45	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	44			
THRU	618	734	WB	
LEFT	72		1799	TOTAL
		1066	EB	

Leg 3: Grove Street
South Leg

	LEFT	THRU	RIGHT
	24	113	90
296		227	
SB	522	NB	
	TOTAL		

McClellan Avenue AT US-41/M-28

Turn Movement Diagram:

2018 AM Peak
7:15 - 8:15

Leg 1: McClellan Avenue
North Leg

		TOTAL	
	SB	743	NB
	182		561
54	128	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	582		
TOTAL	1140		0	LEFT
	EB	558	454	THRU
			104	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	212			
THRU	528	740	WB	
LEFT	0		1339	TOTAL
		599	EB	

Leg 3: McClellan Avenue
South Leg

	LEFT	THRU	RIGHT
	0	349	145
232		493	
SB	725	NB	
	TOTAL		

McClellan Avenue AT US-41/M-28

Turn Movement Diagram:

2038 AM Peak

Leg 1: McClellan Avenue
North Leg

		TOTAL	
	SB	821	NB
	202		620
60	142	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	643		
TOTAL	1260		0	LEFT
	EB	616	502	THRU
			114	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	234			
THRU	583	818	WB	
LEFT	0		1479	TOTAL
		662	EB	

Leg 3: McClellan Avenue
South Leg

	LEFT	THRU	RIGHT
	0	385	160
256		545	
SB	801	NB	
	TOTAL		

McClellan Avenue AT US-41/M-28

Turn Movement Diagram:

2018 Mid-Day
12:00 - 1:00

Leg 1: McClellan Avenue
North Leg

		TOTAL	
	SB	930	NB
	414		517
143	271	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	741		
TOTAL	1578		0	LEFT
	EB	838	615	THRU
			223	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	199			
THRU	598	797	WB	
LEFT	0		1605	TOTAL
		809	EB	

Leg 3: McClellan Avenue
South Leg

	LEFT	THRU	RIGHT
	0	318	193
493		511	
SB	1004	NB	
	TOTAL		

McClellan Avenue AT US-41/M-28

Turn Movement Diagram:

2038 Mid-Day

Leg 1: McClellan Avenue
North Leg

		TOTAL	
	SB	1028	NB
	457		571
158	299	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	818		
TOTAL	1744		0	LEFT
	EB	926	680	THRU
			246	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	220			
THRU	660	880	WB	
LEFT	0		1774	TOTAL
		893	EB	

Leg 3: McClellan Avenue
South Leg

	LEFT	THRU	RIGHT
	0	351	214
545		565	
SB	1110	NB	
	TOTAL		

McClellan Avenue AT US-41/M-28

Turn Movement Diagram:

2018 PM Peak
4:30 - 5:30

Leg 1: McClellan Avenue
North Leg

		TOTAL	
	SB	1120	NB
	673		448
251	422	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	1103		
TOTAL	2400		0	LEFT
	EB	1297	921	THRU
			376	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	142			
THRU	852	994	WB	
LEFT	0		2139	TOTAL
		1145	EB	

Leg 3: McClellan Avenue
South Leg

	LEFT	THRU	RIGHT
	0	306	224
798		530	
SB	1328	NB	
	TOTAL		

McClellan Avenue AT US-41/M-28

Turn Movement Diagram:

2038 PM Peak

Leg 1: McClellan Avenue
North Leg

		TOTAL	
	SB	1238	NB
	743		495
277	466	0	
RIGHT	THRU	LEFT	

Leg 4: US-41/M-28
West Leg

	WB	1218		
TOTAL	2652		0	LEFT
	EB	1433	1018	THRU
			416	RIGHT

Leg 2: US-41/M-28
East Leg

RIGHT	157			
THRU	941	1098	WB	
LEFT	0		2363	TOTAL
		1265	EB	

Leg 3: McClellan Avenue
South Leg

	LEFT	THRU	RIGHT
	0	338	247
882		585	
SB	1467	NB	
	TOTAL		