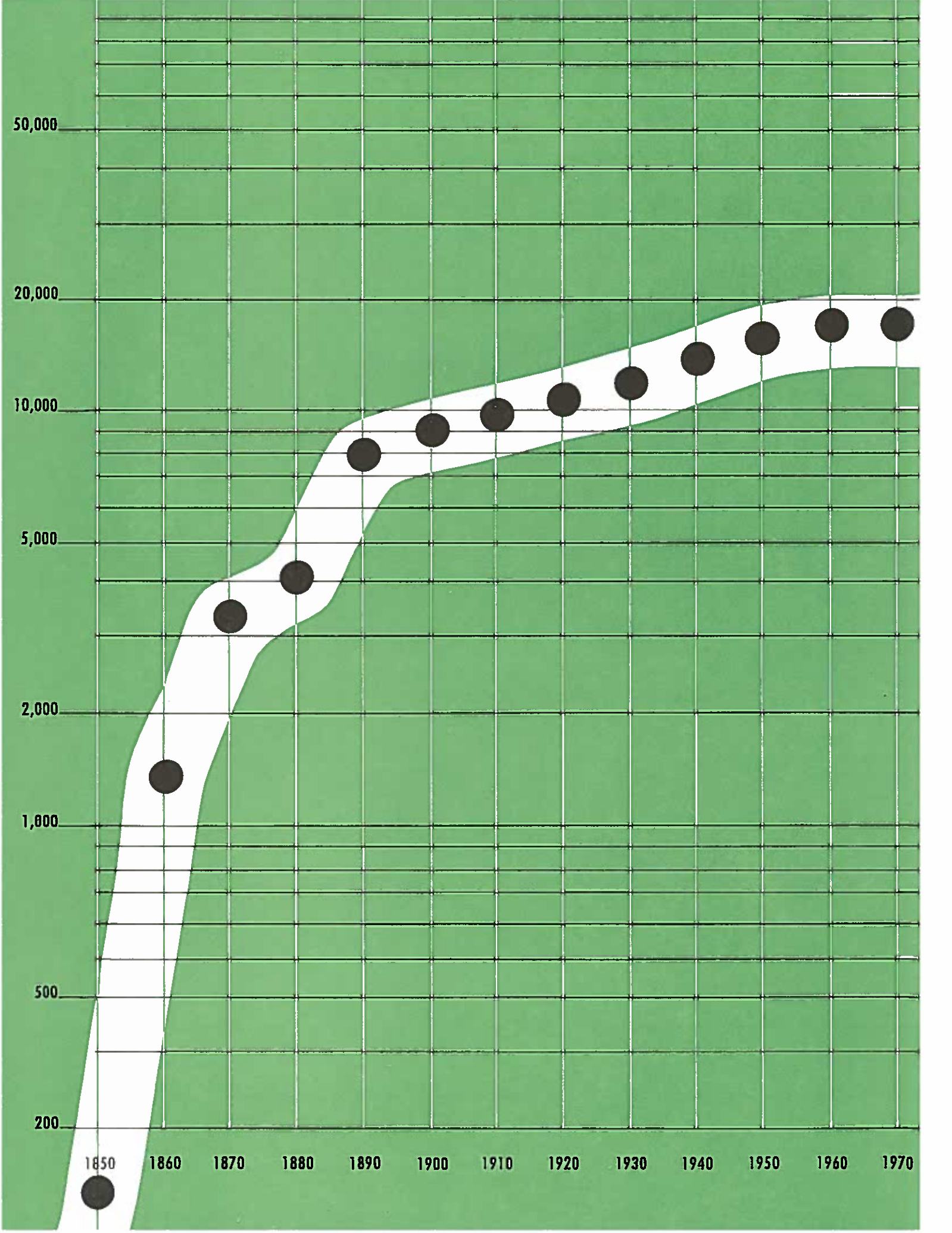


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Marquette, Michigan | **city plan**



City of Marquette; Rate of population growth based from 1940 on medium mortality and fertility using 1930-40 average migration

Marquette, Michigan | **city plan**

Marquette Planning Board

George N. Skrubbs city planning engineer

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Foreword

The City Plan that is presented between these covers was written during a period of readjustment in the city government of Marquette. It comes at a time when a new city charter is being prepared, when the public will select a completely new slate of city legislators and at a time when substantial outlays will be required to bring streets, schools and utilities into more useful condition. Consequently, the City Plan is weighted more heavily with data which was considered useful for making future policy decisions rather than with detailed programs.

However, the City Plan does reflect the ideas and suggestions of the people who found time to participate in public forums and special committee meetings devoted to needed improvements. And the report also represents three years of work on the part of the Marquette Planning Board. But this is merely the first step in the process of providing an order for the development and improvement of the city. Considerably more time and effort must be expended before even the most meager results can be expected.

A bold departure from historical trends is not indicated by this plan nor does it purport to remake the community into an esthetically pleasing environment. Marquette is not situated in the path of dollars readily tapped for the purpose of realizing grand plans. The region no longer holds the rich resources of the past and its remoteness from markets makes it necessary to prepare plans that can be financed by moderate incomes.

In the final analysis the effectuation of any improvement plan rests

upon adequate leadership on the part of government officials and a sense of responsibility and desire for betterment on the part of the public. Today, as in the past, we have but a partial manifestation of these requisites. And with such we can realize but a gradual movement in the direction of improvement. However, as imperceptible as the changes may appear they nevertheless are important and it is this gradual change that we must look for.

Special attention is drawn to the work done by the high school students of Marquette and their contribution to the City Plan. Likewise, acknowledgment is due the city departments which rendered their assistance in clarifying various requirements for betterment and to Lawrence Scudder and Company for their work on the history of the city's finances. Without the help of those mentioned and the interested public, this report could not have been prepared.

G.N.S.

Past Experience

1

Past Experience . . . *Over the past one hundred years of the city's existence, there are numerous historical records which reveal the nature of Marquette's growth. The development of the community from frontier days to the present time was accomplished by the realization of a mixture of individual, long and short range plans.*

Planning is not new in Marquette.

The early planning was done, not by one group exclusively, nor by any one individual, but by countless people interested in profit, some people interested in better living conditions and a few people interested in village beautification. This type of planning was spontaneous and was widely practiced by early mining company executives, real estate men, railroad officials, and at times by civic groups, chambers of commerce, and every now and then by some public spirited citizen.

Park sites were purchased for the use of the townspeople. Subdivisions were planned to accommodate the growing population. Railroad track was laid through forests, from iron mines to docks and from one village to another. Labor was recruited. Streets were graded and plank sidewalks were constructed. Each group planned and built for its own purposes. Their combined efforts constituted the development of the city.

The people were the planners.

From the year Marquette was founded, in 1849, the people in the community took planning in their own hands. Critics may call them piecemeal planners. Yet it is important that many of their decisions were tempered by the changes they anticipated in the future.

When Marquette was but eight years old, with a population of barely 1,000, the village was stirring over a public park dispute. The following excerpt from the newspaper of that day clearly typifies the interest shown by the people as they participated in their planning process.

vs. A Public Park (June 20, 1857) . . . "Editor of Journal: — Dear Sir: — Allow me through your paper to make a few inquiries relative to Public Park excitement. There seems to be a tendency to do everything that is to be done here (to use a homely phrase) with a perfect rush. Now I ask every candid taxpayer, whether a public park laid out, in the centre of what must be in a few years the business part of our town, "would be what the far-seeing writer" in your last paper, seems to think would be what future posterity will thank their illustrious ancestors for having furnished them, for a pleasure ground,—or whether a park laid out upon some of the surrounding heights, would not be a more befitting legacy to perpetuate the name of the great fathers of this enlarged town. And by the way Mr. Editor, have we not already a beautiful cemetery ground, laid out with a public park which nature's own God has planted with a luxuriant growth of evergreens . . . Now I would ask if the writer in your last number was not bringing his own axes to grind, when he so loudly calls upon the citizens to purchase a certain spot? Whose property is to be made more valuable; how much will village lots be worth around the great Marquette square? Perhaps a few plank side walks around our town, would strike the visitors from abroad, as of quite as much importance as a surplus of public parks, and no way to get to them without wading through sand, or trailing over bushes which would deter many from enjoying the pleasure of so splendid an outlay of the public spirit of our citizens."

Respectfully Yours,

A Tax Payer.*

During the time of this controversy, systematic and so-called scientific planning standards were yet to be developed. No one referred to park acreage per capita, nor were any of the other modern

*LAKE SUPERIOR JOURNAL: Vol. VIII, No. 7: Saturday, June 20, 1857. Marquette County Historical Society file.

measuring sticks of adequacy available to these early taxpayers. Elaborate studies of population and local fiscal ability were unnecessary since it was common for all to know who had moved into the community, who had babies and how much money the village treasury contained.

Plan of the village of Marquette: 1859.

To emphasize the fact that planning is not new in Marquette and to illustrate graphically the type of planning that was done during the first ten years of the village's existence, a copy of one of the earliest plans of the community has been reproduced from the map collection of the Marquette County Historical Society.

The plan, which dates back to 1859, indicates a street pattern which is very similar to the one in existence today, except for the fact



that the streets shown north of Ridge Street are today all parallel with Pine Street. There are other minor changes, but this basic plan has been adhered to for over ninety years.

It is significant to note that the planned extremities of the village at the time were Fisher, Sixth and Ohio Streets, and that the only building beyond Ridge Street was the Episcopal Church. The plan likewise shows that the village was built around the terminus of the Bay de Noquet and Marquette Railroad on Main Street. In all probability this early plan was conceived by realtors Harlow, Burt and Hewitt together with officials of the Cleveland Iron Mining Company.

The people were aware of community growth.

Not only was there an interest in community planning, but the townspeople were also aware of the changes that were taking place in other western towns.

In 1868, shortly after fire had burned out Marquette's business district, the *Marquette Weekly Plain Dealer* ran a story on building activity within the village. Marquette at this time was reaching the peak of its post-Civil War prosperity. The story, which follows, indicates a noteworthy sense of local evaluation and a summary of village physical conditions of that day.

Building (October 22, 1868) . . . "The growth of Marquette is somewhat different from western towns generally. It is the fashion for towns and cities in the west to spring up like mushrooms, and often collapse when they have attained prominence. Our town is built up quietly and unassuming. There is no rush as if eternity was comprised in a day, but a steady, constant growth. This very often leads many to think times are dull, but to look over our town and compare it with a year ago, there is a veritable change noticed little thought of. Washington street, for instance, shows this. As far up as the east end of the cemetery on the north side of the street, is nearly all built up, and on the south side the lots are nearly all occupied up as far as the west

end of the cemetery grounds. On Bluff and Ridge streets the same improvements are noticed in the number of new buildings. On the south end of the town, in the vicinity of St. Peter's Cathedral, many new buildings are being put up. Taken all together, not to speak of the building in the "burnt district" there has been more building done in Marquette this season than any previous one. And it is also a noticeable fact that there are no empty houses."*

Marquette's early economy was based upon the iron ore industry.

The origin and development of the city are closely related to the production and shipment of iron ore from the Marquette Range. During the first thirty years blast furnaces and railroads were primary sources of employment. And naturally enough, the growth and prosperity of the community paralleled the fluctuations of the nation's iron and steel consumption. It was not until the 1880's that a concerted effort was made toward diversification of industry and employment opportunity.

A civic group under the name of the Citizens' Association was instrumental in encouraging new industry to locate in the city. The Citizens' Association, during the year 1888, was one of the first effective planning bodies, in spite of the fact that the group was never labeled as a planning organization. Their policies and practical approach to industrial decentralization were often editorialized by the local press of that period. The following editorial is reprinted from *The Mining Journal*: December 13, 1890.

"Marquette isn't offering bonuses to manufacturing concerns as an inducement to persuade them to locate here. It isn't in the market for vagrant industries. Nevertheless it is steadily increasing the number of its large producing and employing establishments, and enjoying a healthy, because wholly natural, growth. What it offers manufacturers who are looking for desirable locations is something better than a bonus — the assurance of low taxation that

*MARQUETTE WEEKLY PLAIN DEALER: Vol. 2, No. 1, October 22, 1868. Marquette County Historical Society file.

is found in a careful administration of municipal affairs, and opportunity for the men that they employ to secure pleasant and comfortable homes at a moderate cost, cheap light, cheap water service, and public improvements far in advance of anything that can be shown by any place of equal size in the United States. And these count with the kind of enterprises that are most desirable, and which are looking for a chance to do business permanently, instead of a bonus to help them out of present difficulties."*

Although the city followed a conservative policy at the time, many stable industries did locate in Marquette and are productive yet today.

In reviewing the city's growth, we find that even though there was little, if any, coordination of effort, there nevertheless was an enormous amount of planning accomplished. And most of the significant advances in the city's development can be directly attributed to the foresight of the early people who planned.

The city has experienced its share of growing pains.

One of the primary causes of many present day city problems can be traced to the fact that early physical planning was not coordinated. This is evidenced by the subdivisions which were laid out disregarding the contour of the ground and as a result a few sections of the city have lots and streets platted on rock outcrop and steep grades. Likewise, the alignment of streets was ignored in some cases and has resulted in higher maintenance costs today.

Equally important are the social and communal problems of the city, which also were caused by the lack of coordination. The early planners, as mentioned, were mainly men of influence who were in control of land and industry. At times the aims of these various planners were in conflict and still at other times the people stood opposed to the plans of the influential men.

From the first days of settlement a sense of class-consciousness developed between the recruited workers and their employers. As the

*THE MINING JOURNAL: New No. 1169: December 13, 1890. Peter White Public Library file.

city grew the number of segments multiplied rather than united. Distinctions were manifested in many forms including nationalities, religions and special interest groups as well as in occupations. This further differentiation in community composition increased the difficulty of attaining early unified planning aims.

Social problems in the early days were reflected in political terms when one or another of the city's eight political wards fought for dominance. The ward system also had a tendency to concentrate interest solely within the districts and further restricted the capability of the people to view community problems as a single entity.

In 1914, however, the aldermanic form of local administration was replaced by the commission type of government. And with the passing of the old form, Marquette has witnessed both a social and political change. The social disputes between the north and south ends of town have been gradually eliminated and generally city problems are coming into focus as ones that must be met by *community* action rather than attacked by factional interests.

Planning is continued in Marquette.

Since 1914, and even much before that date, Marquette had far outgrown the village that was planned in 1859. The village population of 1859 has since multiplied sixteen times. Marquette like other American cities was transformed from a horse and buggy town to another city of the nation's highway network. The automobile opened up the fringe areas of the city. Trowbridge Park and highway homes between Marquette and Negaunee came into being. Parking and street problems were ushered in with a new tourist trade and increased retail activity.

In the face of mounting problems the city commission in 1947 organized an official planning board. The resolution stated, "Whereas, It is the sense of this Commission that a proper utilization of the resources, advantages and attractions of the City of Marquette calls

for a detailed study of such resources, advantages and attractions to the end that the same may be developed in such an orderly and constructive manner as will best contribute to the health and welfare of the present and future inhabitants of the city; and . . . Whereas, It is further the sense of this Commission that a representative group of citizens of Marquette be selected by this Commission to aid it in formulating such a plan and putting the same into operation; Now, therefore, be it resolved and ordered: 1. That a group of seven citizens of Marquette be selected by this Commission, to be known as the Marquette Planning Board. . . ”

The action taken by the city commission to form a planning board had both national and state precedent. From the standpoint of the United States, the first official city planning commission was created in 1907. At the present time approximately one thousand cities have appointed planning boards or commissions and nearly half of these planning bodies are functioning in cities the size of Marquette, in the 10,000 to 25,000 population group.

When the Marquette Planning Board was organized there were 83 cities and villages in the state of Michigan with legally organized planning commissions. In the first two and one half years of the Marquette Planning Board's existence the number of planning commissions in Michigan increased to 104. In the Upper Peninsula of Michigan alone there are seven communities with active planning groups.

Planning Marquette, past and present.

A brief indication has been given of how Marquette was planned in the past as well as the extent of planning activity in the United States and Michigan today. To summarize briefly, the past history of Marquette is replete with uncoordinated planning which was largely accomplished by private interests. The planning board, established in 1947, has as its task the preparation of a city wide plan in the public interest.

Before continuing with the function of our present planning board it might be well to define city planning as it applies to Marquette. *City planning is essentially providing an order for the development and improvement of the community that meets with majority understanding and approval of the people.*

To accomplish this aim of planning, a specific program had to be followed. The first step was to make a survey of existing city conditions. At this point it was necessary to collect all pertinent factual material which has influenced the growth of the city. When the city's resources and problems had been surveyed, plans were formulated for their improvement and further development. The final step in the program was to work out ways and means to maintain a sound course for the future growth of the city.

The present planning process differs greatly from the old in that now we have had the views of a good cross-section of the people expressed during the preparation of the plans. This has been accomplished through public forum meetings and by a sponsored essay contest in the city's three high schools.

Likewise the present planning process has been one of comprehensively examining all city problems, rather than spending time on any one problem in particular. The remainder of the City Plan will indicate how the people have participated in the formulation of the plans and a summary of the various parts of the plans will also be presented.



Marquette Planning Board

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Present Situation

2

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Present Situation . . . *The Marquette Planning Board held its first meeting on February 4, 1947, and decided at the outset that a survey of city conditions should be made. This survey entailed the preparation of some forty-five maps showing existing water and sewer lines, the location of industries, businesses, homes, and recreation areas as well as a number of reports and studies of such factors as population, schools, city finances and other related matters.*

Evaluation of present city conditions.

The accumulation and analysis of basic city data revealed many conditions that needed improvement and also provided reference material on which to base future decisions. But by and large many of the needs of the community can not be recognized by merely examining statistics. It is necessary to have an expression of needs from the community at large.

It was on this premise that the Marquette Planning Board early in 1948 sponsored an essay contest for the students in the city's three high schools. And it was from the students and their parents that a true picture of community needs for the future became evident.

A better Marquette for tomorrow's living.

Over five hundred Marquette high school students wrote papers during the month of March, 1948, on the subject noted above. Their writing warrants special consideration.

From the standpoint of city planning the papers all clearly indicated one fact. The students have accepted their role in community life and themselves called for greater unity and common effort to improve their city. There is no necessity for the planner to convince the Marquette public that "*their* community is *their* responsibility."

Likewise, the ideas and suggestions that were made by the high school students were objective. Some of their suggestions dealt with the immediate future, while others looked toward the long range development of their city. Social, economic and physical planning problems were forthrightly discussed and in many cases with unusual insight. From the five hundred papers, random excerpts are being presented here to show the type of suggestions that came naturally from the community.

Evaluation of Marquette's future.

Carolyn Leona Clucas: John D. Pierce: Grade 10 . . . "Every planning commission should establish, first of all, a valid set of principles that should serve as a guide in all its planning and recommended programs of action. This set of principles should include the following: better health, better homes, better recreational and educational facilities, better facilities for teaching its youth trades and occupations, and greater economic opportunities for its citizens. Proper attention to such principles will do much to insure the 'good life.' "

Diane Stafford: Baraga: Grade 11 . . . "Marquette is in no sense of the word a 'boom town' but since its permanent establishment in 1849, its growth and development has been steady and consistent. If we wish this continual advancement we must develop a community that will attract rather than detract. Some people, of course, will complain, 'How can we do this? It is an expensive undertaking.' Well, yes it is, but is an attractive community not worth almost anything? Then again, from another viewpoint one word is sufficient. Cooperation. The attitude of the people here in Marquette is our greatest hindrance. They realize that we have the makings of a great industrial

city and resort center, but until now nobody has made any attempt to do anything about it. There is such a distinction between living 'in the swamps', 'on the hill', and 'below the tracks', that this much needed cooperation seems impossible. But with a little common sense these differences can be overcome."

Nancy Sue Corey: Graveraet: Grade 11 . . . "Towering buildings, bridges and magnificent highways and modernistic vehicles for transportation on land, water and in the air. Industry with its modern machinery spreading wealth and power throughout the countryside. Every man free and content living a life of ease and prosperity and looking forward to many opportunities in his life ahead. Surely this is the picture that is painted for us as to what the future will be like. Is this the Marquette of tomorrow? The city we live in? Perhaps. But it certainly isn't today. It can never come about without careful planning and effort on the part of all. We must work together, as a group, not individually. We will have to get behind every idea, add to it and carry it out until, altogether, our ideas become the finished project. Generations may come and go before we achieve our goal but each can do his part."

Joe Schrandt: John D. Pierce: Grade 12 . . . "City planning, too long, has been a term which we thought applied only to the public parts of a city or town, to large scale civic improvement such as scenic highways, park areas, water-front reclamation, and so forth.

To my way of thinking, these things will gradually come about if we start in the home and in the school to build up civic pride. Our widespread spending of money for sensational improvements will do little to help our city in attaining any goal if the citizens do not know how to take care of what they already have. Civic planning should start in every home—back yard and front yard! With every one personally responsible for a well-kept yard in the summer, and clean, shoveled paths in the winter, the overall appearance of the city will be greatly improved. Once pride is built up for one's home and other people's homes and property, then pride in public property can be developed."

Audrey Anderson: Baraga: Grade 12 . . . "Like, 'You are what you eat', 'A city is the people that are in it.' "

Bonnie MacLean; John D. Pierce: Grade 12 . . . "Few cities come close to perfection! However, some cities come nearer that goal by having many more advantages and conveniences than other cities. The citizens of these cities seem contented with their lives within the city. We ask, 'Why? Have these people actually planned in detail the future of their city?' The answer, we find, is 'Yes.' These people have realized the faults of their city and decided to do something about them. Thus came the idea of 'city planning.' The people of the city must first make a study and complete survey of the city's past and present. With its weak and strong points clearly in mind, the citizens may begin to plan the city's future."

Charlotte Ann Miettunen; Graveruel: Grade 12 . . . "No amount of grand scale construction, no huge plans for recreation, no great influx of industry and tourists can take place until Marquette first gets something else. This vital necessity, without which Marquette cannot be a better place to live in a million tomorrow's, is a change of attitude on the part of the people, a spirit of cooperation."

Ann Stafford; Baraga: Grade 12 . . . "Marquette would be a better place in which to live if the people in the city would make some attempt at being neighborly and trying to cooperate in the proposed activities of the community."

Jack Peterson; John D. Pierce: Grade 12 . . . "Before we can make a plan of our city, we must know all the aspects of its structure. This involves study of its economics, social, and physical conditions; the trend toward changes in these conditions; the mistakes and successes in the past; developments; and the securing of improvements. It also requires the study of past examples in city planning for guidance in design, policy and customs, and laws to ascertain to what extent plans can be carried out in real practice."

Helen L. Quinn; Baraga: Grade 10 . . . "A large portion of our school children of today will make up the most of the community in years to come. We believe, with the concerted effort of our local planning board, working with our newly organized Chamber of Commerce, attractive proposals

can be worked out to induce new industries to locate in Marquette. It might be well for us to sell ourselves the idea that we really have something to offer."

Alice West: John D. Pierce: Grade 10 . . . "Let us consider the present situation in Marquette and see how well we are fulfilling these obligations. We must take note of the resources on which our economic prosperity depends. The most important are: 1. Mineral wealth, 2. Forest products, 3. Agricultural enterprise, 4. Ever-growing tourist trade. History shows that unwise exploitation of such resources may lead to general poverty and movement of population elsewhere. Conservation and wise use of land are therefore basic to any program for civic betterment. This involves territory far beyond our city limits."

Martin Diedrich: Graveraet: Grade 11 . . . "Once the interest of the people is stimulated and they themselves are largely responsible for putting forth different projects in the community, they will be more willing to co-operate and work side by side with the leaders of the community."

Carol Rose: Baraga: Grade 10 . . . "There are also many ways in which we can provide for a better recreation program. There should be more playgrounds for little children, so that they will not be playing in the streets. Many accidents could be prevented if there were more playgrounds for little children to play in. There should be more recreation places of amusement for teen-agers and our young people of today."

George Huff: John D. Pierce: Grade 12 . . . "The city of Marquette must, if it is to engage in a planning program, give much thought to the entrances to our city. If we are to have the scenic territory we are famous for, we must do much work on the highways leading to and from Marquette. Billboards should be done away with and shrubbery planted to beautify the roadsides. There should be clear but not unattractive directions for people entering our city. If the old remains of docks that litter our lake shore were disposed of, it would be a great help in making our city more beautiful. Along with that, there are a great many old, abandoned buildings in our community that should be torn down. Then the land could be used to good advantage. These old

buildings constitute a menace and detract from the landscapes. Good use could be found for the land; it could be used for playgrounds or other recreational activities."

Jack Thompson: Graveraet: Grade 10 . . . "Leaving recreation and going on, there are many other improvements to be made in the city. A bypass highway should be built around the city so that trucks and traffic not wishing to stop in Marquette could go around it and so avoid many unnecessary traffic problems.

Frederick J. Peterson: John D. Pierce: Grade 12 . . . "If Marquette is going to be an ideal place in which to live in the future, there is much need for city planning. We should take great interest in the improvement of our city because we will be its future citizens. Improvements in our city would mean not only a greater tourist trade, but the attracting of many people who would spend their future here."

Joan Aho: John D. Pierce: Grade 12 . . . "The entrance to a city gives the first impression. On entering Marquette, tourists are confronted with numerous signs and billboards which present an unpleasant picture to the outsider, and are an obstruction to scenic views of the lake and the city itself. The replacing of this advertising by shrubbery is one way of changing the appearance of Marquette and possibly encouraging travelers to find out about our city."

Lee Wolff: Graveraet: Grade 12 . . . "Many individuals include new buildings, swimming pools, gymnasiums, and other costly improvements on their lists of 'musts' to better our city. I feel that they all are nice projects, but Marquette is not a very prosperous city. As much as seventy-five per cent of the improvements must be planned so as to require little or no money."

Joan Griffin: Baraga: Grade 11 . . . "This is one respect in which our neighborhoods can be improved. But a still more important one is the friendly spirit in our neighborhoods and in the whole community. So many people in Marquette are 'cold' that when a new person moves into their block

they try to learn all about them but the things they pass on are the bad ones, not the good ones. I am not saying that this is true of everyone, but a large percentage of each neighborhood can be classified as this type. Tourists and people visiting Marquette notice the unfriendly air of the residents within a few days. They find few people who feel free to talk and get acquainted with them. Another fault of the people here is that they are more or less inclined to be clannish or have their own social groups which stay to themselves."

Robert A. Wilson: Graveraet: Grade 12 . . . "Another thing is that there are too many small groups that have their own interests in mind before the improvement of the city. They think of their own groups first and the community next. Sometimes they forget all about their city and devote all of their time to their own special groups."

Lauriann Gant: John D. Pierce: Grade 10 . . . "Often in large cities people have to become tolerant of race, creed, and color of their neighbors and come to recognize that no one race is superior to any other. In some sections of Marquette, there is intolerance of certain nationalities and creeds, although we have no real color problem here. To truly appreciate all peoples, we must come to know the contribution every nationality has made to our democracy."

Robert Nadeau: Baraga: Grade 11 . . . "In regard to the business sections of town, it would greatly improve the appearance of it if some of the old structures and buildings were removed. These not only deface the looks of the town but also they are a hazard to the other buildings as well. They also bring down the value of the surrounding buildings. It would also help to improve our town to ask the people to fix up their homes by painting them, fixing their lawns and gardens, and by planting bushes, all of these things will help to improve the appearance of our community very much."

Joanne Spencer: Graveraet: Grade 11 . . . "Marquette's big need is a decent community building. The Palestra shouldn't even be given the courtesy of the name, community building. It does nothing except consume the largest share of the money appropriated for recreation."

Donna Mae Henne; Baraga: Grade 10 . . . "A full and balanced recreational program is necessary; and its importance is not only based upon the happiness and good habits and character traits it fosters in our youth at the present, but also its carry over into the future life of each individual concerned."

Bob Curry; Graveraet: Grade 11 . . . "In order to carry out the above suggestions a Citizen's City Betterment League should be formed. This league should be composed of citizens of the city of Marquette and they should be empowered to act in city affairs in the same manner that the Parent Teacher's Association acts in school affairs. This body would promote, and put into practice, new ideas for city improvements and it would closely watch city government."

Students evaluated five forms of city land use.

In these excerpts and especially in the full papers, the uses of city land were evaluated. For convenience these have been reduced to five in number. First, the residential and neighborhood uses of land and property; second, recreational uses; third, industrial and commercial uses; fourth, transportation and fifth, school and civic land uses.

Living in any city or rural area requires that we devote a certain percentage of our land to each of these uses. This is to provide space for our homes, places to spend leisure time, areas for work, lanes or roads to move from one place to another and finally space for community activities.

When the students viewed their city they saw shortcomings in their neighborhoods, some felt that recreation was a weak point while others looked at transportation routes and the approaches to the city. All of their ideas relate to one or another of these five land use categories.

Thus the Marquette Planning Board divided the formulation of plans into these five categories and has made specific recommendations for the development of each of these parts.

MARQUETTE, MICHIGAN



Regional Situation: Great Lakes Area

3

Regional Situation: Great Lakes Area

City of Marquette: 1950 population: 17,325.

The inland port city of Marquette, shown on the adjoining map, is situated on the south shore of Lake Superior. Over 5,000,000 tons of iron ore are annually shipped to lower lake steel mills from the port of Marquette. The city serves as a headquarters for regional, federal and state government offices and as a retail and wholesale distribution center. The industry of the city is diversified and includes firms that manufacture chemicals, machine parts and wood products. Railroad iron ore docks and terminal repair shops are also located in Marquette.

County of Marquette: 1950 population: 47,284.

The county of Marquette is indicated by the shaded area on the map. Sixty-eight percent of the county is urban with these people living in the two mining cities of Ishpeming and Negaunee and in the city of Marquette. Mining and manufacturing are the two primary sources of employment. Agriculture plays a minor role with less than five percent of the county's labor force engaged in that activity.

Upper Peninsula of Michigan: 1950 population: 298,545.

Upper Peninsula is shown in white in the illustration and is made up of fifteen counties. The peninsula represents five percent of the total population of the State of Michigan. Employment in the peninsula is varied with the following sources accounting for over half of the employed workers: manufacturing, 21%; wholesale and retail,

16%; agriculture, 14% and mining, 12%. Mineral, chiefly iron and copper, and forest reserves are two of the peninsula's most important resources. Eighty percent of the Upper Peninsula's 10.5 million acres are in forest lands. The peninsula produces 13% of the nation's iron ore and 5% of its copper.

State of Michigan: 1950 population: 6,334,171.

The entire state is shown in white on the map. Sixty-six percent of the state is urban with the largest concentration living in the southern half of the state. Michigan's situation in the Great Lakes region provides convenient water transportation. However the two Great Lakes that separate the two peninsulas has hindered the unified development of the state as a whole. The trading area of the Upper Peninsula has as a result grown in closer relation to Wisconsin and Illinois. This is particularly true of the western half of the Upper Peninsula.

Population

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Population . . . *The foregoing illustration has been presented at the outset of this section on the formulation of plans as a means of briefly orienting the reader with Marquette's situation in the Great Lakes region. The remainder of this section will cover in greater detail a study of the population of the city and the region.*

General significance of population studies.

Audrey Anderson in her essay expressed one of the basic ideas regarding city life when she wrote, "Like, 'You are what you eat', 'A city is the people that are in it.' " And it is true that the very existence of a city rests upon its constituent population. The number of people, their distribution and age composition reflect the character of the city. They reflect the character since the expressed needs of these people are evidenced in the amount, location and size of homes, roads, schools, churches, public utilities, stores and other essentials which facilitate urban living.

Yet, the people represent a fluid element in city life. There is a constant movement into, out of and within each city. Likewise there are changes wrought by the local frequency of births and deaths. Consequently, a study of population represents, in part, a study of movement and also of natural growth.

Because of the fact that population is constantly changing, it is important that the general trend be understood and related to the future needs of the city.

Population of Marquette.

The frontispiece illustrates, by means of a logarithmic graph, the rate of past and projected population growth in the city of Marquette.

The city has grown steadily since its founding and the following *Table 1* indicates the increase since 1870.

Marquette is the only city in the Upper Peninsula which has shown an increase in population in each successive census decade.

table 1 | City of Marquette: Population by Decades 1870-1950

Year	Population	Number Increase	Percentage Increase
1950	17,325	1,397	8.8
1940	15,928	1,139	7.7
1930	14,789	2,071	16.3
1920	12,718	1,215	10.6
1910	11,503	1,445	14.4
1900	10,058	965	10.6
1890	9,093	4,403	93.9
1880	4,690	690	17.3
1870	4,000	—	—

Source: U. S. Bureau of the Census.

In order to determine the present and future population of Marquette it was necessary to examine the many factors which cause its change. It was previously mentioned that migration and natural increase are the two main factors. Consequently, the natural increase was determined from local health records from 1927 to 1948 and the migrational factor represented the difference, in each census decade, between the total change and natural increase. Over a period of twenty years the migrational factor has represented about four new families being added annually.

Since the Marquette branch of the Michigan State Prison located within the city of Marquette has its population included in the gross census enumeration, it is necessary to deduct annually the prison population from the gross to attain the local figure.

The final factor which influenced the determination of Marquette's annual population was the war service personnel. Local discharge records have provided an approximation of the changes which have taken place over the war years. It is realized that a small number are annually leaving the city for the armed services, however, approximately the same number are returning which offsets the necessity for any further detailed study in this respect.

Table 2 summarizes the findings of this portion of the population study.

The future population of Marquette, as shown in the frontispiece, is expected to reach about 19,600 by 1970. Two types of studies were made to produce this estimate. One was to determine the amount Marquette has represented of the national population since 1910 and on the basis of Census Bureau studies to project Marquette's population to 1970. The result of this method indicated that the gross population on the basis of medium fertility and mortality would be 20,000 in 1970. The second method utilized the average natural increase and the migration from 1927 as a means of projection. This method indicated a total of 20,800 people by 1970. To use the advantages of both studies an average of the two was taken. This average is 20,400. By assuming a prison population of 800, the corrected city of Marquette population by 1970 would be 19,600.

Another important aspect of the city's population is the relative number of people in the various age groups and the change that has taken place during the past census decade from 1930 to 1940. *Table 3* shows the age composition, in number and percentage, for the years 1930 and 1940.

From *Table 3* the following generalizations can be made. There is a remarkable similarity between the breakdown of age composition for the United States and Marquette during the year 1940. The parallel is particularly close from the age level of 10 years and over. In Marquette the number of children under 19 years has decreased most predominantly with a noticeable increase in the age group over 45 years old. Reference to this portion of the population study will be made in other sections of the City Plan.

table 2 | Population: City of Marquette

Year	Population		School Census	Armed Forces		Prison Population	Resident Number	Births Rate	Deaths Number	Natural Increase
	Corrected	Gross		Into	Out					
1950	16,499	17,361	3,776	—	—	862				
1949	16,320	17,132	3,820	—	—	812	387	23.7	158	229
1948	16,033	16,853	3,773	—	—	820	422	26.3	143	279
1947	15,279	16,072	3,776	—	500	793	438	28.6	157	281
1946	14,190	14,968	3,870	7	900	778	363	25.6	152	211
1945	14,131	14,886	3,786	53	30	755	248	17.6	144	104
1944	14,238	15,023	3,789	221	—	785	254	17.8	170	84
1943	14,724	15,504	3,833	613	—	780	290	19.7	158	132
1942	15,215	15,950	3,930	594	—	735	300	19.7	152	148
1941	15,228	15,974	3,961	177	—	746	281	18.4	128	153
1940	15,177	15,928	4,127	89	—	751	272	17.9	138	134
1939	15,046	15,817	4,117	11	—	771	251	16.7	168	83
1938	15,004	15,704	4,132	—	—	700	265	17.7	178	87
1937	14,788	15,553	4,047	—	—	765	276	18.7	151	125
1936	14,677	15,439	4,141	—	—	762	245	16.7	157	88
1935	14,585	15,363	3,916	—	—	778	220	15.1	170	50
1934	14,481	15,260	3,984	—	—	779	213	14.7	136	77
1933	14,252	15,095	4,098	—	—	843	254	17.8	115	139
1932	14,102	15,003	4,038	—	—	901	237	16.8	161	66
1931	13,924	14,867	4,100	—	—	943	247	17.7	137	110
1930	13,899	14,789	4,003	—	—	890	234	16.8	182	52
1929	13,654	14,529	3,956	—	—	875	281	20.4	139	142
1928	13,394	14,289	3,873	—	—	895	242	17.7	148	94
1927	13,189	14,039	3,819	—	—	850	280	20.4	173	107
1926	13,039	13,809	—	—	—	770	—	—	—	—
1925	12,879	13,589	—	—	—	710	—	—	—	—
1924	—	13,379	—	—	—	—	—	—	—	—
1923	—	13,199	—	—	—	—	—	—	—	—
1922	—	13,029	—	—	—	—	—	—	—	—
1921	—	12,868	—	—	—	—	—	—	—	—
1920	—	12,718	—	—	—	—	—	—	—	—

Sources: U. S. Bureau of the Census, City of Marquette Health Department, Marquette Branch Prison, Superintendent of Marquette Schools.

table 3 | City of Marquette and United States Age Composition: 1940

Source: U. S. Bureau of the Census.

City of Marquette: 1930

Age	Male • Percent	Female • Percent	Total • Percent
Under 5	684 - 8.7	622 - 9.0	1306 - 8.8
5 to 9	748 - 9.5	698 - 10.1	1446 - 9.8
10 to 14	675 - 8.6	698 - 10.1	1373 - 9.3
15 to 19	671 - 8.5	700 - 10.1	1371 - 9.3
20 to 24	677 - 8.6	572 - 8.3	1249 - 8.5
25 to 29	673 - 8.6	516 - 7.5	1189 - 8.0
30 to 34	637 - 8.1	431 - 6.2	1068 - 7.2
35 to 44	1164 - 14.8	977 - 14.1	2141 - 14.5
45 to 54	848 - 10.8	778 - 11.2	1626 - 11.0
55 to 64	629 - 8.0	532 - 7.7	1161 - 7.9
65 to 74	329 - 4.2	295 - 4.2	624 - 4.2
75 & over	122 - 1.5	109 - 1.5	231 - 1.5
Total	7857 100	6928 100	14789 100

City of Marquette 1940:**United States Total: 1940**

Age	Male • Percent	Female • Percent	Total • Percent	Male • Percent	Female • Percent	Total • Percent
Under 5	602 - 7.2	600 - 7.9	1202 - 7.5	8.1	7.9	8.0
5 to 9	603 - 7.2	616 - 8.0	1219 - 7.6	8.2	8.0	8.1
10 to 14	734 - 8.8	686 - 8.9	1420 - 8.9	9.0	8.8	8.9
15 to 19	755 - 9.1	738 - 9.7	1493 - 9.4	9.4	9.4	9.4
20 to 24	706 - 8.5	683 - 8.9	1389 - 8.7	8.6	9.0	8.8
25 to 29	762 - 9.1	597 - 7.8	1359 - 8.6	8.3	8.6	8.4
30 to 34	698 - 8.4	552 - 7.3	1250 - 7.8	7.7	7.9	7.8
35 to 39	632 - 7.6	565 - 7.4	1197 - 7.5	7.2	7.3	7.2
40 to 44	575 - 6.9	474 - 6.2	1049 - 6.6	6.7	6.7	6.7
45 to 49	555 - 6.7	443 - 5.8	998 - 6.2	6.4	6.2	6.3
50 to 54	474 - 5.7	472 - 6.2	946 - 5.9	5.7	5.3	5.5
55 to 59	358 - 4.3	309 - 4.0	667 - 4.2	4.6	4.3	4.5
60 to 64	311 - 3.7	314 - 4.1	625 - 3.9	3.7	3.6	3.6
65 to 69	211 - 2.5	225 - 2.9	436 - 2.7	2.8	2.9	2.8
70 to 74	198 - 2.3	151 - 2.0	349 - 2.2	1.9	2.0	1.9
75 & over	147 - 1.7	182 - 2.4	329 - 2.0	1.9	2.2	2.0
Total	8321 100	7607 100	15928 100	100	100	100

A final characteristic of Marquette's population to be covered is the foreign-born element. The Upper Peninsula according to the 1940 census had 16.6 percent of its total population as foreign-born while the County of Marquette had 15.8 percent, the State of Michigan had 13 percent and the nation as a whole had 9 percent.

The City of Marquette in this case was comparable with the state with 12.3 percent of its people foreign-born. *Table 4* indicates a considerable decline in Marquette's foreign-born population from 1930 to 1940.

table 4 | City of Marquette: Sex, Race and Nativity

	1940	1930
Total Population	15,928	14,789
Male	8,321	7,861
Female	7,607	6,928
Percent Native White	86.7	80.6
Percent Foreign-born White	12.3	17.9
Percent Negro	0.9	1.3

Source: U. S. Bureau of the Census

The spatial distribution of Marquette's population has been plotted on maps for the years 1920, 1930, and 1940. The school population has also been prepared in map form and has been transmitted to the Marquette Board of Education for their study.

Marquette County and Upper Peninsula population.

In order to show more clearly the trend of the city of Marquette's population growth, the relationship of the city to the county and Upper Peninsula will be briefly indicated. *Table 5* shows a breakdown of Marquette County into its constituent townships and cities and traces the growth of the county from 1890 to 1950.

table 5 | Population: County of Marquette

Township and City	Population by Years						
	1950	1940	1930	1920	1910	1900	1890
Champion	559	694	634	620	1,069	1,707	2,622
Chocolay	1,109	882	636	735	852	662	1,285
Ely	678	616	407	1,024	922	303	694
Ewing	283	308	249	—	—	—	—
Forsyth	1,730	1,998	2,307	2,945	2,402	595	270
Humboldt	436	522	558	627	604	341	608
Ishpeming City	8,933	9,491	9,238	10,500	12,448	13,255	11,197
Ishpeming	1,422	1,331	1,064	1,044	587	360	904
Marquette City	17,325	15,928	14,789	12,718	11,503	10,058	9,093
Marquette	1,287	780	133	207	155	200	268
Michigamme	453	513	461	449	846	1,143	1,435
Negaunee City	6,300	6,813	6,552	7,419	8,460	6,935	6,078
Negaunee	841	568	277	92	157	94	333
Powell	615	644	1,020	554	736	—	—
Republic	1,492	1,617	1,422	2,074	2,420	2,293	2,594
Richmond	1,197	1,225	1,182	932	911	892	1,132
Sands	180	172	156	171	159	192	—
Skandia	633	793	707	818	546	338	—
Tilden	907	967	898	1,097	1,150	1,448	908
Turin	217	353	461	964	202	141	100
Wells	431	491	638	506	306	—	—
West Branch	256	438	287	290	304	282	—
Total County	47,284	47,144	44,076	45,786	46,739	41,239	39,521

Source: U. S. Bureau of the Census

By 1900, Ishpeming was the largest city in the Upper Peninsula. By 1930 it had lost some 4,000 people and after a slight recovery in 1940, the 1950 census indicated the smallest population recorded for that city since 1890. Virtually the same trend is true in the case of Negaunee which reached its peak population in 1910 and now has dropped to slightly less than its 1930 figure. From the standpoint of overall county population, there has been a gradual leveling off since 1910. Somewhat resembling the trend of metropolitan cities, Marquette County has witnessed a movement of population from rural districts to the fringes of the county's major cities. As a consequence the percentage increase within the cities is found to be far less than in the adjacent townships. This is borne out in the increases shown by the 1950 census for the townships of Ishpeming, Marquette, Negaunee and Chocolay as contrasted to their neighboring cities.

In studying the Upper Peninsula from the point of view of 1950 population statistics, Marquette's position becomes much more significant. The peninsula contained twenty incorporated cities, yet only five have over 10,000 people. Marquette and Sault Ste. Marie were the two largest cities in 1950. Of the five cities having populations over 10,000, two have declined during the census decade from 1940 to 1950. Marquette, Sault Ste. Marie and Menominee were the only ones showing an increase. The five major cities in 1950 in the Upper Peninsula were: Sault Ste. Marie, 17,696; Marquette, 17,325; Escanaba, 14,814; Ironwood, 11,506 and Menominee, 11,107. A population summary from 1900 to 1940 has been compiled of all the incorporated places in the Upper Peninsula and is presented in *Table 6*.

The concluding section on population will illustrate the growth of the fifteen constituent counties of the peninsula. These developments are important to the city of Marquette since its own economy and growth are dependent upon a flourishing peninsula.

The years of greatest activity and population in the Upper Peninsula, since 1880, are the ones from 1900 to 1920. In 1910 the peninsula contained the largest percentage of the total state population in its history. The percentage was 11.6 at this time and has

table 6 | Population of Incorporated Places: Upper Peninsula

County	c-City v-Village	Population by Years				
		1940	1930	1920	1910	1900
Alger	(c) Munising	4,409	3,956	5,037	2,952	2,014
Baraga	(v) Baraga	1,110	1,045	942	1,071	1,185
Baraga	(v) L'Anse	2,564	2,421	1,013	708	620
Chippewa	(v) Detour	595	616	612	721	880
Chippewa	(c) Sault Ste. Marie	15,847	13,755	12,096	12,615	10,538
Delta	(c) Escanaba	14,830	14,524	13,103	13,194	9,549
Delta	(v) Garden	462	371	395	497	465
Delta	(c) Gladstone	4,972	5,170	4,953	4,211	3,380
Dickinson	(v) Kingsford	5,771	5,526	—	—	—
Dickinson	(c) Iron Mountain	11,080	11,652	8,251	9,216	9,242
Dickinson	(c) Norway	3,728	4,016	4,533	4,974	4,170
Gogebic	(c) Bessemer	4,080	4,035	5,482	4,583	3,911
Gogebic	(c) Ironwood	13,369	14,299	15,739	12,821	9,705
Gogebic	(c) Wakefield	3,591	3,677	4,151	2,474	1,438
Houghton	(v) South Range	918	1,120	1,435	1,097	—
Houghton	(v) Calumet	1,460	1,557	2,390	—	—
Houghton	(v) Copper City	479	587	—	—	—
Houghton	(v) Laurium	3,929	4,916	6,696	8,537	5,643
Houghton	(c) Hancock	5,554	5,795	7,527	8,981	4,050
Houghton	(v) Houghton	3,693	3,757	4,466	5,113	4,668
Houghton	(v) Lake Linden	1,631	1,714	2,182	2,325	2,507

table 6 | Population of Incorporated Places: Upper Peninsula (continued)

County	c-City v-Village	Population by Years				
		1940	1930	1920	1910	1900
Iron	(c) Crystal Falls	2,641	2,995	3,394	3,775	3,231
Iron	(c) Iron River	4,416	4,665	4,295	2,450	1,482
Iron	(v) Mineral Hills	344	432	384	—	—
Iron	(v) Alpha	497	560	818	—	—
Iron	(v) Caspian	1,797	1,888	1,912	—	—
Iron	(v) Gaastra	773	755	911	—	—
Iron	(c) Stambaugh	2,081	2,400	2,263	1,322	695
Keweenaw	(v) Ahmeek	475	624	892	766	—
Luce	(v) Newberry	2,732	2,465	2,172	1,182	1,015
Mackinac	(c) Mackinac Island	508	566	493	714	564
Mackinac	(c) St. Ignace	2,669	2,109	1,852	2,118	2,271
Marquette	(c) Ishpeming	9,491	9,238	10,500	12,448	13,255
Marquette	(c) Marquette	15,928	14,789	12,718	11,503	10,058
Marquette	(c) Negaunee	6,813	6,552	7,419	8,460	6,935
Menominee	(v) Daggett	283	291	321	228	—
Menominee	(c) Menominee	10,230	10,320	8,907	10,507	12,818
Menominee	(v) Powers	258	360	249	—	—
Menominee	(v) Stephenson	612	447	550	527	395
Ontonagon	(v) Ontonagon	2,290	1,937	1,406	1,964	1,267
Schoolcraft	(c) Manistique	5,399	5,198	6,380	4,722	4,126

Source: U. S. Bureau of the Census

fallen consistently to a new low of 4.7 in 1950. *Table 7* illustrates the Upper Peninsula population from 1880 to 1950. It should be noted that the 1950 census, taken in April, was a particularly depressed period in the Upper Peninsula. Unemployment, numerically, was at a post-war high and undoubtedly many had left the area temporarily to seek employment in Wisconsin, Illinois or Lower Michigan.

table 7 | Population of Counties: Upper Peninsula

County	Population by Years							
	1950	1940	1930	1920	1910	1900	1890	1880
Alger	9,765	10,167	9,327	9,983	7,675	5,868	1,238	—
Baraga	8,014	9,356	9,168	7,662	6,127	4,320	3,036	1,804
Chippewa	28,889	27,807	25,047	24,818	24,472	21,338	12,019	5,248
Delta	31,780	34,037	32,280	30,909	30,108	23,881	15,330	6,812
Dickinson	24,630	28,731	29,941	19,456	20,524	17,890	—	—
Gogebic	26,942	31,797	31,577	33,225	23,333	16,738	13,166	—
Houghton	39,525	47,631	52,851	71,930	88,098	66,063	35,389	22,473
Iron	17,628	20,243	20,805	22,107	15,164	8,990	4,432	—
Keweenaw	2,901	4,004	5,076	6,322	7,156	3,217	2,894	4,270
Luce	8,152	7,423	6,528	6,149	4,004	2,983	2,455	—
Mackinac	9,250	9,438	8,783	8,026	9,249	7,703	7,830	2,902
Marquette	47,284	47,144	44,076	45,786	46,739	41,239	39,521	25,394
Menominee	25,249	24,883	23,652	23,778	25,648	27,046	33,639	11,987
Ontonagon	10,245	11,359	11,114	12,428	8,650	6,197	3,756	2,565
Schoolcraft	9,102	9,524	8,451	9,977	8,681	7,889	5,818	1,575
Total	299,356	323,544	318,676	332,556	325,628	261,362	180,523	85,030
% Total State	4.7	6.1	6.6	9.0	11.6	10.8	9.0	5.3

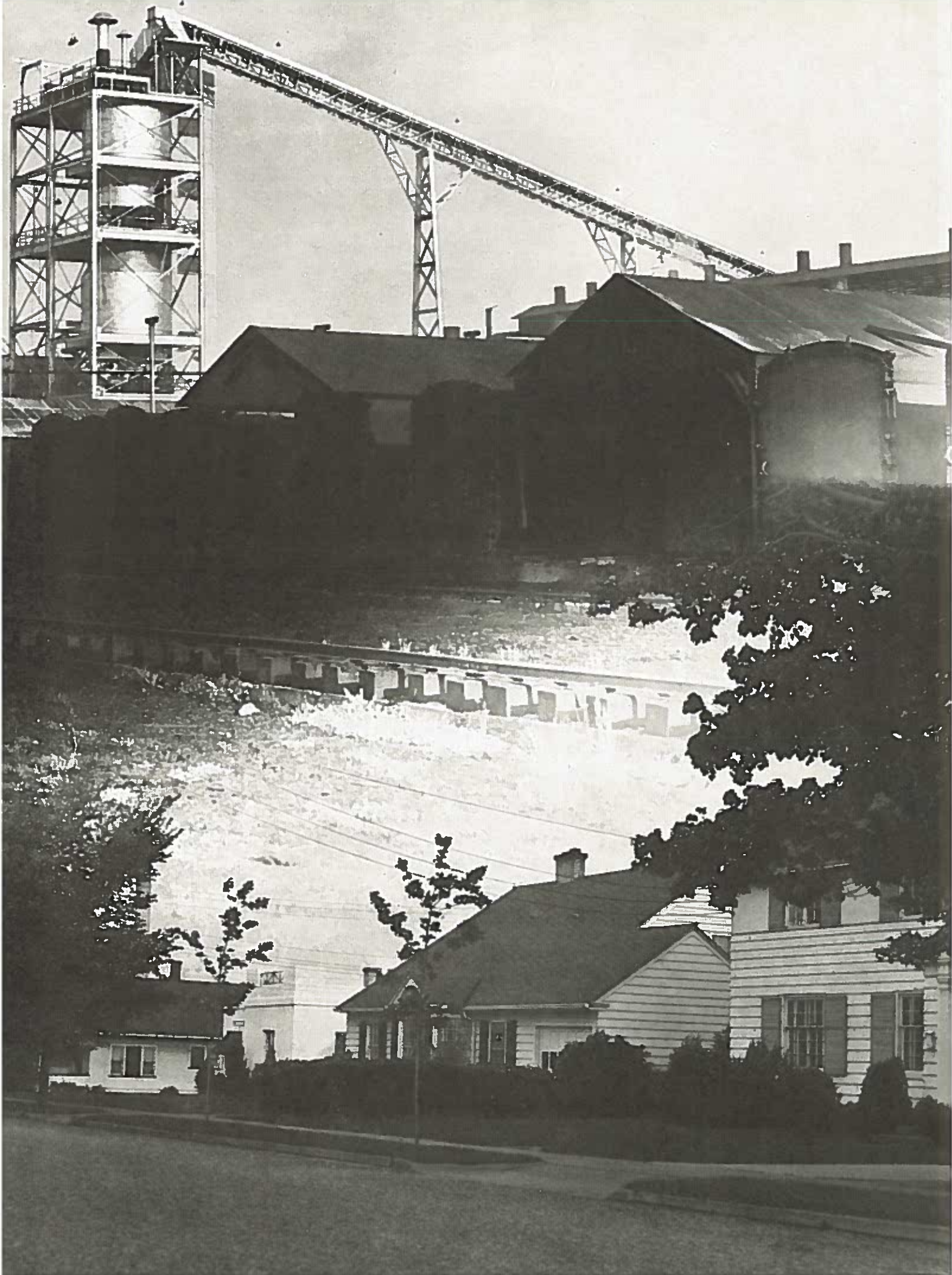
Source: U. S. Bureau of the Census

Table 7 also shows the western counties in the general Marquette region to be on a gradual decline. Houghton, Keweenaw, Iron, Gogebie and Dickinson Counties are five in the region with most pronounced downward trends.

This general survey of county and Upper Peninsula population trends reflects in decade strides the prevailing economic conditions of the particular area. When manufacturing, mining or any other employment source ceases to expand or maintain its equilibrium, the barometer of population records its change. Therefore without going into the details of employment opportunities, the economic trends nevertheless can be traced by examining at greater length the population fluctuations that have occurred in the areas covered. It is for this reason that the foregoing tables have been compiled to cover at least fifty years.

Summary of population.

Since the very existence of Marquette is dependent upon its people and their means of sustaining a livelihood, the foregoing brief analysis of population trends has been given as a basis for evaluating the remainder of the City Plan. The five parts of the City Plan, which are to follow, namely, residential and neighborhood, recreation, industrial and commercial, transportation and school and civic, all have population size, distribution and composition as a common denominator. These relationships will become more evident as the evaluation and recommendations of the Marquette Planning Board are discussed in the succeeding sections. It is important to keep in mind throughout the City Plan of Marquette, the basic premise that, "a city is the people that are in it."



Residential and neighborhood plan

5

Residential and neighborhood plan . . . *"Civic planning should start in every home—back yard and front yard! With everyone personally responsible for a well kept yard in the summer, and clean shoveled paths in the winter, the overall appearance of the city will be greatly improved." This idea of Joe Schrandt's has in it the fundamental principles that can either see a residential plan succeed or fail. The key words are "personally responsible." Where responsibility is lacking on the part of the owner and tenants to maintain homes and yards, the entire neighborhood is affected. Maintenance of existing developed property then, is one of the most important current problems. Another equally important one is the proper development of new land for residence purposes. The Marquette Planning Board has evaluated these problems from two points of view. One means was to examine present city housing conditions and the other was to relate new residential development to possible neighborhood patterns.*

Evaluation of city housing conditions.

Residential land use is defined as land used for home life. The homestead, the house on the outlying one acre plot and the residences on platted fifty foot lots are all various examples of residential land use. This is the predominant use made of land in Marquette and consumes over forty percent of the developed area.

The city's residential area contained in 1940 some 3,988 homes, according to the 1940 housing census. Of this total 2,077 were owner occupied units and represented 53.4% of the total occupied dwellings. In 1930, 59.6% of the people owned their own homes. The past census decade has thus indicated a slight drop in home ownership.

Marquette's overall residential area consists mainly of old homes and the majority of all the dwellings are of the one family type.

Table 8, shows the number of homes built during five and ten year periods. Over 55% of the dwellings existing today were built over forty years ago.

Table 9 indicates the number of various types of dwellings in Marquette. Sixty-one percent of the total are one family detached dwellings. Although the majority of homes are of the one family type, their localized distribution is primarily in the newer sections of the residential area.

table 8 | Housing:

Age of Dwelling Units: 1940
City of Marquette

Year Built	Number
1935-1940	277
1930-1934	206
1925-1929	225
1920-1924	214
1910-1919	623
1900-1909	666
1890-1899	659
1880-1889	683
1860-1879	185
1859 or earlier	32
Not reporting	518
Total	3,988

Source: U. S. Bureau of the Census

table 9 | Housing:

Type of Structure: 1940
City of Marquette

Type of Structure	Number
One Family	2,497
Two Family	946
Three Family	210
Four Family	108
One to Four Family with Business	93
All other	134
Total	3,988

Source: U. S. Bureau of the Census

The foregoing facts have outlined the scope of housing and residential conditions in Marquette. The adequacy of these present facilities is dependent upon maintenance, as previously mentioned. In this connection, the 1940 housing census indicated that approximately 30% of the dwelling units in the city were in need of major repairs. Much of this disrepair can be traced to the age of the structures, yet it is the responsibility of the owner, in the interests of the neighborhood and community, to maintain his investment by sustaining the usefulness of his property.

The population study of the city has shown that there has been an increase of some 1,400 people from 1940 to 1950. During this same period 360 building permits have been issued for new residential construction. Based on 3.5 persons per family, this would mean that the local building industry has kept abreast with local needs, with possibly a backlog of some 50 units still to be built in 1950. This number can be increased somewhat by taking into consideration the fact that a number of the very old homes have become obsolete during this period. All in all, from the past experience in home construction, it appears that there is no need of government financed housing projects in Marquette. This is particularly true since there is no area that could be classified as requiring rehabilitation.

Land subdivision and future growth.

In 1944, before the increase in population took place, there were some 1,100 undeveloped lots out of a total of 5,723 platted lots in the city of Marquette. Since 1947 an additional 400 lots have been made available for sale, some officially platted, others to be deeded by metes and bounds descriptions. Were all of these lots to be purchased and occupied by dwellings with 3.5 persons per family, they would accommodate some 5,000 additional people or more than the population forecast would indicate for the year 1990.

Early in the course of this subdivision expansion, the Marquette Planning Board anticipated the results of indiscriminate division of land into lots. With no plan or regulation, it could be clearly seen that lots would be divided into various sizes and shapes with random regard to future streets. Some lots would be laid out in areas where the expense to the general public would be prohibitive when water and sewer utilities were required. And likewise, some lots would be measured and sold on the outmoded metes and bounds basis. Metes and bounds is a means of describing the boundary of a lot or parcel of land after a survey has been made and covering any possible error in the survey by stating that the various distances are more or less correct. This has led to innumerable disputes between adjoining property owners when accurate surveys have shown the error of their metes and bounds deeds. Metes and bounds is a sufficiently accurate method of describing acreage for farms and large tracts, but has no place within the corporate limits of a city where there is a higher concentration of people.

Subdivision Ordinance.

To counteract the poor practice mentioned, the Marquette Planning Board prepared an ordinance relative to the subdivision of land. This ordinance was based upon the state platting law, Act 172 of the Public Acts of 1929 as amended.

The primary purpose of the ordinance was to protect the prospective lot purchaser. It ensured him of receiving a lot that had been accurately surveyed with the lot corners certified to be correctly placed. It specified that all abutting street right of ways were to be over sixty-six feet wide and that the lot must have at least a width of fifty feet and be over 6,000 square feet in area. The ordinance also specified that the streets be graded and graveled by the subdivider.

The ordinance was enacted into law on June 5, 1947 by the city commission. Under the terms of the ordinance everyone in the city intending to divide his property into two or more lots must submit

a preliminary drawing to the Marquette Planning Board and city commission for their approval. After approval has been granted on the basis of the preliminary drawing, then a final map must be prepared by a registered surveyor or engineer in four copies and be resubmitted. This latter requirement is a mandatory portion of the state law since copies must be sent to the Auditor General of the State of Michigan and also to the County Register of Deeds for their approval and filing. Full details of the ordinance can be had from the City Clerk's Office in the City Hall.

The subdivision ordinance, to summarize, has as its purposes the protection of property rights by ensuring that accurate surveys be made, the elimination of the metes and bounds type of inaccurate description of land and providing adequate street and lot widths. It in no way affects the type or cost of contemplated building nor does it prescribe the cost of the lots.

Since the time the law was passed, six subdividers have complied with the terms of the ordinance and before any others are legally authorized to sell lots, they too must fulfill the terms of the subdivision ordinance.

Neighborhood development in the planning of Marquette.

Thus far in the discussion of the residential and neighborhood plan, the housing conditions and land subdivision ordinance have been covered. A final evaluation of the residence areas of the city has been made from the point of view of neighborhood development.

Neighborhoods are portions of the city's residence area that can be variously defined in terms of population, land area and social activities. A neighborhood is often assumed to be an area serviced by an elementary school. This area is usually limited to a quarter or half mile walking distance radius. Within the general area there are varying numbers of people, depending upon the density of development. A neighborhood may have from 2,000 to 10,000 people and be from 50 to 250 acres in size.

The Marquette Planning Board in 1947 prepared a map indicating existing neighborhoods in Marquette. The six neighborhoods that were delineated first were studies from the point of view of natural barriers such as topography, rivers and Lake Superior. They were then further weighed in terms of transportation routes such as the D. S. S. & A. Railroad and L. S. & I. Railroad tracks, the state and county highways and other heavily travelled arterial streets. Existing industries and the main business district also served as factors in finally defining the six neighborhood areas.

In Marquette the sole purpose in developing a neighborhood plan was to provide a means of evaluating recreational, school and shopping area needs. Originally it was felt that a plan of social activities could be tied in with the existing neighborhoods, yet this has not proven feasible since the city is in need of greater community integration rather than reverting to the development of other sectionalized interests. The ward system of the past was mentioned previously as a political expression of sectional interests which jeopardized community action on important issues.

Marquette has a total of some 130 different associations, clubs and unions which provide ample means of interchanging ideas on the sectional or neighborhood level. The need is for more adequate community facilities to bring together the differing factions. Thus the planning program indicated that the city could be divided physically into six geographic areas, yet socially the need is to regard the city as one neighborhood or one community. It is for this reason that the neighborhood plan in Marquette's case is used solely as a yard stick to measure physical conditions.

Recommended policy in promoting sound land development.

As the plan of 1859 indicates, Marquette began its growth as a single neighborhood with most of the early village life being centered around the waterfront dock area. As the city grew, lots were laid out on the hillsides and gradually the expansion formed a half circle about

the original settlement. This was a natural, sound growth which the early settlers looked upon with pride. It was not until the advent of the automobile that this concentric outward expansion was disturbed.

Now there has been a tendency to develop property in any locality where cheap land is found, irregardless of future utility costs. In this respect it is recommended that in the future only subdivision plats be accepted which are adjacent to existing developed land. It would follow then, that city services should be extended only within contiguously platted or developed properties.

Likewise from the general aspect of economy, it is suggested that future development for high density residential purposes be encouraged in the general area between Wright Street and Fair Avenue extending westward to the city limits from Eighth Street and Tracy Avenue.

The rolling property south of the Homestead Addition, from the proper land utilization standpoint, could never be as economically developed for high density purposes as the area previously noted and should be retained as a higher valued area of platted acreage parcels with all future roads conforming as much as possible to the prevailing topography. It is important that these areas be considered in future development in their entirety rather than as isolated parcels held in various ownerships.

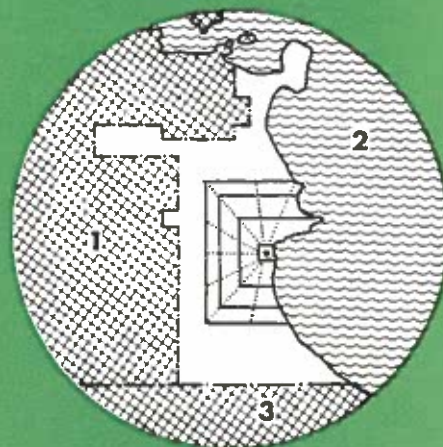
Summary of residential and neighborhood plan.

In this, the first of five general plans, portions of the Marquette Planning Board's recommendations have already been adopted and placed into action. The enactment of the subdivision ordinance was one of the most important steps taken to provide for sound residential growth. The effectiveness of the ordinance will prove of even greater value when it is fully interpreted in terms of the recommended policy on land development.

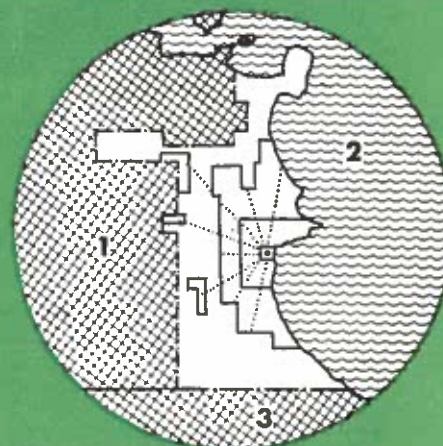
Neighborhoods, as mentioned, are sections of the city's residence area which are defined by the service area of an elementary school. Physically, a well planned neighborhood is a self contained area which can adequately provide for the day to day home life needs of the people. This means that a functional neighborhood should provide facilities for local shopping, education, recreation and religious worship as well as include places of work in close proximity. Since the neighborhood plan will be used as a means of measuring the future needs of recreation, schools and other facilities, its further relationship to Marquette's planning program will be mentioned in other parts of the City Plan. The remaining portion of the residential plan dealt with local responsibility in maintaining property. This recommendation is clearly outside of the realm of governmental action, yet this is more reason to encourage every home owner to improve his property to the extent of his ability. A city's residential area is no better than the people themselves make it.

Future Growth

Proper Utility Expansion

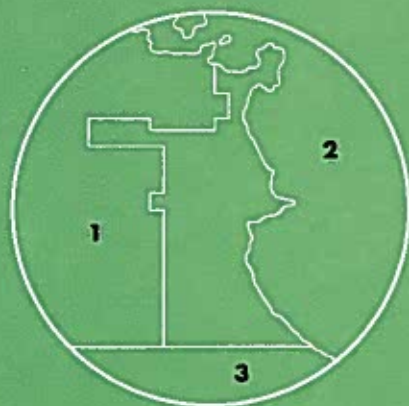


Wasteful Utility Expansion

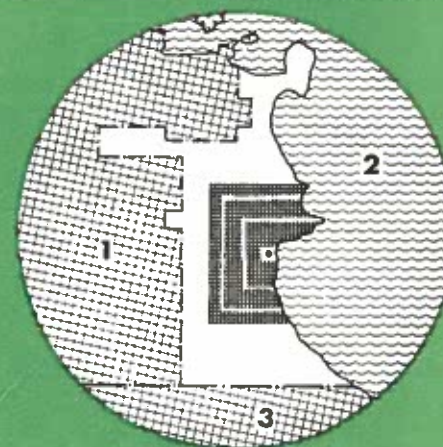


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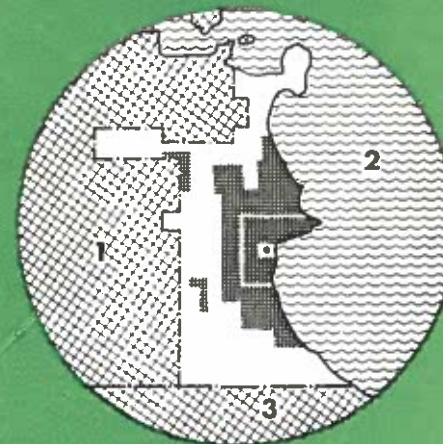
- 1** Marquette Township
- 2** Lake Superior
- 3** Sands Township



Proper Subdividing



Wasteful Subdividing



The concentric half-rings shown about the black dot symbolize the same areas of platted lots as indicated in the adjoining illustration of **proper subdividing**. The dotted lines emanating from the black dot picture diagrammatically the extension of water lines from Marquette's downtown area. This shows that when the city follows a sound subdivision policy based on continued concentric growth, **water lines can be economically extended evenly in all directions from the central core of the city**. This illustration would also hold true in the case of sewer lines as well as the coordinated development of city streets.

The areas which are outlined in the sketch correspond with the platted areas shown as **wasteful subdividing**. The dotted lines represent utility lines. It can be seen that when uncoordinated or random subdividing practice is permitted that **utilities must be extended through sparsely settled areas to reach the higher density sections**. This wasteful type of expansion can be curtailed if the city followed a policy of only accepting plats in the future that are adjacent to the presently built up areas. All four sketches show the city of Marquette as the white area, Lake Superior as parallel lines and the townships as the cross-hatched area around the city.

The dark concentric half-rings shown about the black dot symbolize areas of platted lots within the City of Marquette. The white area represents land within the city limits that is still in acreage parcels and sparsely populated. The black dot corresponds to the corner of Washington and Front Streets with the parallel lines indicating Lake Superior. A sound subdivision policy on the part of the city should require, as far as topography permits, that future plats all be contiguous to presently platted or developed land. **Likewise, it is desirable that future development continue to grow evenly from the central core outward as illustrated.**

When random subdividing is permitted, the result is a disintegrated pattern of growth. The dark areas on the periphery of the city limits represent poor examples of platting. The white area indicates the land contained within the city limits that is still in acreage tracts and sparsely populated. The illustration symbolizes the type of subdividing practice that should be discouraged since the platting of property, itself, invites a higher density of development and the eventual necessity to provide costly services and utilities. The sketch is indicative of the present subdivision trend in Marquette, and which, **if not curbed will prove to be an unnecessary burden on future taxpayers.**



Recreation plan

6

Recreation plan . . . *The majority of high school students evaluated the city's recreation program and facilities in the essays they wrote on the theme, "A Better Marquette for Tomorrow's Living." Donna Mae Henne wrote, "A full and balanced recreational program is necessary; and its importance is not only based upon the happiness and good habits and character traits it fosters in our youth at the present, but also its carry over into the future life of each individual concerned." Donna Mae's evaluation clearly defines the inherent values of participating in neighborhood and community leisure time activities.*

Recreation, as a part of the city life of Marquette, can be studied from many different aspects. There are three methods suggested here. First, recreation can be evaluated from the standpoint of the diversity of local interests. This would necessitate a breakdown of recreation into its seasonal activities and would bring into focus the various special interest groups such as the winter sports council, golf and country club, rod and gun club, yacht club and baseball teams, to mention a few. A second approach would be to categorize all activities as being of neighborhood or community scope. And thirdly, recreation can be examined from the aspect of its activity program or physical facilities. Program evaluation would require a study of supervision of parks and pools, scheduling of events and the provision of activities for all age groups. An examination of physical facilities requires a study of the size, location and the general equipment of the area.

The Marquette Planning Board has limited its study primarily to public recreation areas and has dealt mainly with physical facilities. Most of the final recommendations that are presented in the City Plan are from the ideas advanced by the people at one of the public forums on planning held on March 2, 1948.

table 10 | City of Marquette: Recreation Summary Sheet

Facility	Acreage	Square Foot Area	Softball	Tennis	Basketball	Shuffleboard	Horseshoe	Swings	Slides	See-Saw	Sand Boxes	Horizontal Bars	Ladders	Bath House	Toilets	Picnic Tables	Stoves	Benches	Lifeguard Towers	Other Facilities
Athletic Field	9.62	420,000	1		1	4	2	1	1	1	1									
Harlow Park	4.51	201,856	1		1		2	8	2			1	1					x		
Hurley Field	1.88	82,302	1		1	1	2	6												
Lakeside Park	1.12	49,055																x		
Palestra	2.75	120,000		1	1										2					
Presque Isle	209.10	9,124,500	1	2		5	3	3	3	3		1		1	6	75	8	x	1	
Quarry Pond	13.90	606,200												1	1	1			1	
Shiras Park	23.35	1,017,300				3	10									7	3		1	
Tourist Park	51.15	2,233,500	1				2							1	2	40	3		1	
Williams Park	3.24	141,750	1	2	1	5	3	3	2	3										
Ski Tow Area	2.08	90,542																		
Kirtin Hill	80.00	3,492,800																		Tow
Totals	402.70	17,579,805	6	5	5	18	24	21	8	7	1	2	1	3	11	123	14		4	

General evaluation of existing facilities.

At the outset of this study of recreation, it is important to keep in mind the fact that the city government is responsible primarily for the local public recreation of its townspeople. City government does not go into any phase of the regional recreation business nor does it have the right to speculate community funds on the recreation industry in constructing, maintaining and promoting facilities for a group of people larger than that living within the immediate vicinity of the city.

The fundamental principle underlying this part of the study was to see that ample physical facilities exist that are capable of providing a recreation program throughout the year. In this connection, each recreation area was mapped and its equipment and size were recorded. A recreation summary sheet, in two parts, gives the basic data on Marquette's physical facilities. *Table 10* shows the publicly owned areas while *Table 11* gives the breakdown of non-city owned properties.

table 11 | City of Marquette: Recreation Summary Sheet • Part 2

NON-CITY OWNED FACILITY	SQUARE FEET	ACRES
Marquette Golf and Country Club	4,923,532	112.65
College Stadium	319,000	7.31
College Tennis Courts	21,850	.50
Baraga Skating Rink	45,000	1.03
West End Skating Rink	30,000	.69
North Marquette Field	130,680	3.00
Recreational Land Not Owned By City	5,470,062	125.18
City Owned Recreational Land	17,572,805	402.70
TOTAL	23,049,867	527.88

Table 10 indicates that the city has over 400 acres set aside for both winter and summer recreation. National standards on recreation suggest that a city should have at least one acre of recreation land for every one hundred people. Marquette's minimum, according to national standards, would be 160 acres. From the total acreage aspect, the city of Marquette is more than adequately supplied. The individual recreation sites themselves are also of adequate size for the population groups which they now serve.

Neighborhood plan and the location of recreation sites.

All of the city's recreation areas were plotted on a city map showing the proposed neighborhood areas. This was done to relate existing and future recreation needs with population distribution. The outcome of this study showed that the present areas are well distributed. To reach a neighborhood playground no person should have to walk more than a quarter mile and these playgrounds should be at least three acres in size. On the basis of these standards only Hurley Field is under the standard in size, yet it is well located.

In recommending new playgrounds, the Marquette Planning Board suggests that they all be provided in connection with elementary or secondary schools. The elementary school in each neighborhood should eventually develop into a center for neighborhood leisure time activities which would provide a means for both young and the very old to respectively share common interests. This suggestion implies that adult activity classes and programs be eventually worked out for the older groups and other appropriate activities be scheduled for the younger groups.

Neighborhood playground equipment.

Table 10 enumerates the type of equipment on each public park. Most of the existing parks, with the exception of Williams Park and Presque Isle Park, are under-equipped. However, since playground

equipment is relatively inexpensive it is felt that at least one or two pieces could be acquired annually through park department appropriations. All equipment should be planned and located on the parks in terms of the varying age groups using the facilities. This would mean that facilities for the older age children should be separated from the small children's play space by proper landscaping and site planning.

Community recreation needs.

Although neighborhood recreation facilities are at present adequate, except for the suggestions made regarding equipment and relationship to elementary schools, community needs are numerous. There are at present no publicly owned hardball fields nor is the winter sports area sufficiently developed to make full use of it possible. Likewise the various bath houses at the city's three swimming areas all need to be replaced. There is need for a centrally located recreation building and also for an improved boat basin. These are some of the more important community recreation requirements that were brought out at the planning forum meeting.

Expenditures for recreation.

In order to determine the extent to which neighborhood and community recreation facilities can be provided, it is necessary to examine past trends in parks and recreation expenditures. *Table 12* below, summarizes the amounts that have been spent on parks and recreation from 1942 to 1950. In this connection it should be noted that national recreation authorities recommend that \$1.50 be spent per capita for recreation activities and an additional \$1.50 per capita be annually spent for parks. Under this national standard Marquette's annual expenditure would be \$24,000 for parks and \$24,000 for recreation or a total of \$48,000 for both. In this respect *Table 12* indicates that 1948 and 1949 are somewhat above the national standard

in total expenditures. However, the years 1942 to 1945 show that park maintenance and improvement were allowed to slide and that the three years following were necessary to bring them to their present state of repair. The expenditures for recreation during the past two years indicate added emphasis on programs for children and supervision as well as costly repairs to the Palestra building. All of the annual expenditures shown in *Table 12* are solely for parks and recreation. The amount spent for Park Cemetery and Holy Cross Cemetery which is usually included in the park department budget has been deducted to provide a clearer comparison of the two types of expenditures.

table 12 | City of Marquette: Annual Parks and Recreation Expenditures

(Cemetery costs excluded from each year)

Year	Expenditures		Total
	Parks	Recreation	
1942	11,133	6,706	18,839
1943	17,354	10,675	28,029
1944	18,997	10,222	29,219
1945	17,561	11,195	28,756
1946	25,374	13,977	39,351
1947	28,365	19,593	47,958
1948	21,306	30,081	51,487
1949	22,498	28,399	50,897
1950*	38,740	21,830	60,570

*Budget Appropriations. Source: Annual City Reports

Since Marquette at present is spending more than most cities for parks and recreation it can be seen that in order to provide additional facilities, maintenance of existing areas as well as portions of the recreation program would need to be curtailed to provide additional revenue. This is one alternative. The other is to borrow money for capital expenditures.

Recommendations of the Marquette Planning Board.

Neighborhood facilities should in the future be planned in conjunction with new elementary and secondary schools so that the school playground and building could be used both by the adult and school age population. The existing neighborhood playgrounds which are at present under-equipped should be provided equipment through necessary appropriations made to the park department.

The community needs in order are, first, the acquisition of a hardball field; second, further development of the Kirlin Hill area, and third, the provision of new bath houses at the city beaches. The provision of either boat basin or community recreation building would follow the first three needs.

The Planning Board made the following recommendation to the Marquette Board of Education on March 30, 1948. "Moved, supported and adopted that this Board recommends to the Marquette Public School Board that it attempt to acquire sufficient frontage on Fair Avenue east of Memorial Field for the purpose of making a hardball field for the high school activities and with a view that its use be made available for semi-professional baseball when such activity would not conflict with the school's schedule." The area mentioned in this recommendation is adjacent to Memorial Field and would amount to an enlargement of that field, by 3.65 acres or an additional 265 feet of frontage on Fair Avenue. Enlarging Memorial Field by the amount specified would permit adequate space for a regulation size hardball field with bleachers and still would not interfere with the existing softball field and the location of the field lighting poles.

The development of the Mount Mesnard Winter Sports Area is a long term project which should be begun by first making the Kirlin Hill Ski Jump and Slalom Course usable to the general public. The annual estimated cost over a period of three years would be \$2,100. Likewise, it is recommended that an additional area of 500x1300 feet be acquired at the base of the Kirlin Hill Ski Jump to provide a proper run off from the ski slide.

There are also two roads planned for the Mount Mesnard area. One would be a cross-road linking U. S. 41 and County Road 553 with the winter sports area and the second one is projected from

County Road 553 to the top of Kirlin Hill. The road projects are not included in the cost estimate previously made.

The existing bath houses at all city beaches need to be replaced. It is recommended that the Presque Isle Park bath house first be rebuilt. The rough estimated cost for this project is \$20,000. Estimates for the other structures have not been included within the next six year period.

When these three recreation projects are completed the Planning Board recommends that a thorough study be made of needs and requirements for a community recreation building. The Marquette Armory Board has in contemplation a building, which when built could serve both as an armory and as a community building large enough to provide for conventions, community programs and local sports events. The recommendations regarding the Marquette Armory are described more fully in the section on school and civic improvements. The Marquette Board of Education, in its contemplated building program is also making provisions for community wide facilities. Consequently, no further recommendations are being made for a community recreation building until such time as the Armory and Board of Education plans are more complete.

Likewise, in the recommendations for a boat basin, the Planning Board is suggesting only that the bay area between Presque Isle Park and the L. S. & I. Railroad merchandise dock be developed in the future for this purpose. No plans or cost estimates have been made.

General recreation summary.

In reviewing the recreation facilities of the city, it has been found that Marquette has more total recreational area than most cities and also Marquette annually spends more on its parks and recreation than other cities in its population class. The neighborhood recreation facilities are adequate for present day use, with new ones to be located adjacent to schools. Since the city is now spending a maximum for recreation at the present time, it is recommended that only three community needs be undertaken to be fulfilled within the next six year period. The relationship of recreation expenditures to other city projects is illustrated in the section on capital improvements.



Industrial and commercial plan

7

7

Industrial and commercial plan . . . *In the formulation of plans it was pointed out that the very existence of the city is dependent upon its constituent population and their means of sustaining a livelihood. A study of population has been presented. This section on the industrial and commercial plan has a twofold purpose. One is to indicate the general economic background of the city and region and the other is to recommend ways and means of enhancing the physical structure of the city to maintain flourishing industries and businesses.*

Jack Peterson in his essay on the improvement of Marquette made the following comments, "Before we can make a plan of our city, we must know all aspects of its structure. This involves study of its economic, social, and physical conditions; the trend toward changes in these conditions; the mistakes and successes in the past; developments; and the securing of improvements. It also requires the study of past examples in city planning for guidance in design, policy and customs, and laws to ascertain to what extent plans can be carried out in real practice." This sums up the entire approach to city planning in Marquette. The present section will cover the economic conditions which Jack Peterson mentioned and is intended to serve as a reference for future studies of local economy.

Regional economy: Upper Peninsula.

At the outset it is important to visualize the sources of employment in the Upper Peninsula and their relative importance. *Table 13* summarizes the 1940 distribution of employed workers by industry group for the fifteen counties constituting the Upper Peninsula.

table 13 | Employed Workers by Industry Group:

Upper Peninsula: 1940 and June 1950

COUNTY	Agriculture	Mining	Construction	Manufacturing	Transportation, Communication, other Utilities	Wholesale Retail	Business and Personal Services, Except Domestic	Others and not reported
Alger	454	—	113	1,035	90	303	320	319
Baraga	570	9	147	555	55	268	264	156
Chippewa	1,505	7	350	1,788	713	1,212	1,076	1,813
Delta	1,334	8	331	2,147	1,095	1,593	1,240	1,005
Dickinson	488	400	211	2,072	470	1,214	993	526
Gogebic	395	2,254	279	1,241	464	1,420	1,279	654
Houghton	1,393	2,689	355	1,316	539	2,188	1,893	1,056
Iron	430	1,091	170	537	177	750	705	354
Keweenaw	37	269	33	45	5	77	45	100
Luce	152	—	101	634	71	254	466	146
Mackinac	462	3	274	290	275	317	340	372
Marquette	668	3,074	588	2,378	1,295	2,225	2,161	1,327
Menominee	2,305	4	281	1,962	409	909	829	614
Ontonagon	895	8	144	1,000	118	351	309	239
Schoolcraft	326	93	130	717	129	410	355	286
Total: 1940	11,414	9,909	3,507	17,717	5,905	13,491	12,375	8,967
Percentage	13.7	11.7	4.2	21.3	7.0	16.2	14.8	10.7
June 1950	—	10,150	4,400	22,400	6,840	13,500	10,790	8,590

Source: U. S. Bureau of the Census

*Michigan Unemployment Compensation Commission, Marquette Branch

table 14 | Manufacturing: Upper Peninsula: 1939 and 1947

COUNTIES	Number of Firms		Wage Earners Avg. for Year		Total Wages (1000's of dollars)		Value Added by Mfg. (1000's of dollars)	
	1939	1947	1939	1947	1939	1947	1939	1947
Alger	13	18	640	941	679	2,570	951	6,690
Baraga	11	12	611	683	—	1,542	—	3,986
Chippewa	24	24	1,473	1,798	1,817	4,795	4,108	10,544
Delta	47	54	1,554	1,925	1,616	4,667	3,626	8,977
Dickinson	23	36	1,628	1,891	—	4,756	—	8,719
Gogebic	35	31	995	1,013	846	2,428	1,290	4,305
Houghton	51	64	949	1,504	790	—	4,669	—
Iron	22	22	236	299	170	515	338	799
Keweenaw	2	6	—	183	—	—	—	—
Luce	8	11	79	309	74	723	152	1,478
Mackinac	8	9	25	53	18	72	37	97
Marquette	46	45	1,632	2,357	1,415	4,612	3,228	10,318
Menominee	42	59	1,642	2,522	1,589	5,535	3,714	12,376
Ontonagon	19	27	874	923	779	2,065	1,142	4,629
Schoolcraft	16	18	351	459	392	940	1,161	2,821
Total	367	436	12,689	16,860	10,175	35,220	24,416	75,739
CITIES								
Marquette	19	25	823	1,379	854	2,908	1,431	5,557
Escanaba	19	30	332	710	378	1,548	923	3,714
Sault Ste. Marie	18	14	1,397	1,693	1,765	4,624	4,011	10,179
Iron Mountain	12	20	220	312	—	—	—	—
Ironwood	16	15	232	352	201	765	402	1,558
Menominee	25	33	1,559	2,357	1,509	5,260	3,166	11,752
Total	109	137	4,573	6,803	4,707	15,105	9,933	32,760

Source: U. S. Bureau of the Census

Percentage-wise the distribution is probably much the same in 1949 as it was in 1940. During this period, there has been an influx of small manufacturing plants into the Upper Peninsula. Copper mining has suffered reductions in employment while iron mining has shown small increases. The Michigan Department of Health in 1946 estimated the population of the Upper Peninsula to be 47,671 less in that year than in 1940 or a drop from 323,284 in 1940 to 275,613 in 1946. On the basis of natural increase alone, assuming that the 1946 Health Department estimate is accurate, the population of the Upper Peninsula would have increased some 12,000 from 1947 to 1949. This would bring the Upper Peninsula to some 288,000 people in 1949. The 1950 census reported 299,356 people in the Upper Peninsula.

The previous illustration, *Regional Situation: Great Lakes Area*, summarized the facts shown in *Table 13*. It was noted that manufacturing and retail and wholesale trade were the two predominant sources of the Upper Peninsula's employment. The change that has taken place between 1939 and 1947 in manufacturing is shown in *Table 14*. During this time the Peninsula has had an increase of 69 firms and some 4000 wage earners. The principal cities engaged in manufacturing show an additional 28 firms with 3230 more wage earners. The value added by manufacturers has tripled, however most of this increase is due to the change in the value of the dollar.

In retail trade Marquette County plays the dominant role with Houghton and Delta Counties next in order. *Table 15* gives the 1939 breakdown of Upper Peninsula statistics on retail trade.

Since it is impossible to trace trends of growth or decline by viewing the Upper Peninsula in any one particular year, it has been necessary to obtain statistics on changes in buying income, bank deposits and employment over a period of years. With the use of these latter figures a closer approximation of post-war trends can be determined. *Table 16*, shows the effective buying income and retail and wholesale sales in the Upper Peninsula for various years.

Not only does *Table 16* indicate an increase in buying activity in the Upper Peninsula, but the post-war inflationary dollar value

table 15 | Retail Trade Survey: Upper Peninsula: 1939

County	Number of Stores	Sales in thousands	Active Proprietors of Unincorporated Businesses	Number of Employees (average for year)	Total Payroll in thousands
Alger	144	2,645	137	217	188
Baraga	110	2,113	100	195	140
Chippewa	369	8,624	365	917	872
Delta	440	9,970	409	983	890
Dickinson	378	7,357	355	765	600
Gogebic	456	9,446	409	977	842
Houghton	634	12,731	579	1,418	1,072
Iron	268	5,050	256	488	420
Keweenaw	37	567	32	45	37
Luce	61	1,932	51	172	162
Mackinac	181	2,211	161	233	179
Marquette	603	14,050	573	1,579	1,246
Menominee	284	4,162	277	370	318
Ontonagon	152	2,301	145	192	147
Schoolcraft	140	2,783	146	255	231

Source: U. S. Bureau of the Census

table 16 | Effective Buying Income and Retail and Wholesale Sales: Upper Peninsula

All amounts in thousands of dollars

County	Effective Buying Income		Retail Sales			Wholesale Sales
	1943	1947	1939	1943	1947	1939
Alger	7,989	13,519	2,645	3,037	6,166	424
Baraga	5,956	10,515	2,113	2,324	4,484	310
Chippewa	32,262	43,860	8,624	13,527	21,861	4,615
Delta	37,407	50,000	9,970	18,498	8,874	6,107
Dickinson	23,507	37,853	7,357	25,224	13,141	4,360
Gogebic	26,607	40,351	9,446	10,400	20,740	3,894
Houghton	42,014	64,913	12,731	14,765	29,148	5,951
Iron	16,137	25,060	5,050	6,315	12,332	1,045
Keweenaw	1,917	2,967	567	709	1,121	x
Luce	4,943	9,563	1,932	1,937	4,484	828
Mackinac	6,884	12,041	2,211	2,457	5,605	535
Marquette	46,682	67,544	14,050	17,743	33,632	8,022
Menominee	13,966	20,466	4,162	5,132	11,211	3,898
Ontonagon	4,666	11,428	2,301	1,825	6,166	617
Schoolcraft	8,268	14,182	2,783	3,151	6,166	850
Total	279,205	425,262	85,942	105,337	206,838	41,456

Sources: Sales Management Survey of Buyer Power May 10, 1945 and May 10, 1948
U. S. Bureau of the Census

can be partly attributed for the large numerical increase. The actual change in buying activity would be brought out if the values were adjusted in terms of the 1947 dollar.

A further indication of fiscal trends is found in the study of bank deposits of the various Upper Peninsula counties. *Table 17* like the previous one on buying income shows the post-war inflationary dollar. However, the comparison of deposits in the past three

table 17 | Bank Deposits: Upper Peninsula: 1940, 1947, 1948 and 1949**Deposits as of December 31, each year**

County	1940	1947	1948	1949	% Change 1948-1949
Alger	1,055,684	3,976,112	3,629,323	3,473,741	-4.3
Baraga	525,167	2,684,912	2,823,544	2,406,409	-14.8
Chippewa	5,875,743	16,627,874	16,243,943	16,062,593	-1.1
Delta	9,435,592	23,717,211	23,885,812	22,998,119	-3.7
Dickinson	5,298,711	14,146,412	13,960,664	13,520,697	-3.1
Gogebic	3,361,609	12,514,671	12,354,585	12,291,309	-0.5
Houghton	16,007,032	28,618,424	28,107,928	26,748,816	-4.8
Iron	2,641,214	9,058,731	9,504,609	9,217,414	-3.0
Keweenaw	300,251	677,869	683,351	645,015	-5.6
Luce	676,138	2,283,220	2,239,130	2,119,856	-5.3
Mackinac	725,183	2,134,862	2,200,810	2,104,977	-4.4
Marquette	16,478,918	32,612,030	32,474,493	32,015,709	-1.4
Menominee	5,600,617	14,002,239	14,289,845	13,371,991	-6.4
Ontonagon	982,805	4,572,292	4,314,806	3,890,513	-9.8
Schoolcraft	1,417,852	4,621,497	4,535,540	4,324,603	-4.6
Total	70,382,516	172,248,356	171,248,383	165,191,762	-3.54

Source: Michigan Department of Economic Development

table 18 | 1948-1950 General Employment Trends:
Marquette Area and Upper Peninsula

Month	Upper Peninsula Non-farm Employment			Marquette Area Non-farm Employment		
	Total Employed	Total Unemployed	% Unemployed	Total Employed	Total Unemployed	% Unemployed
1948						
Jan	73,020	8,560	10.4	6,441	450	6.5
Feb	71,130	10,740	13.0	6,368	525	7.6
Mar	68,940	12,630	15.4	6,333	550	8.0
Apr	68,660	13,180	16.1	6,082	730	10.7
May	72,760	10,170	12.2	6,859	500	6.8
Jun	75,460	8,970	10.6	7,127	400	5.3
Jul	77,300	7,400	8.7	7,213	375	4.9
Aug	78,260	6,740	8.1	7,312	310	4.0
Sep	79,110	5,750	6.8	7,305	275	3.6
Oct	79,100	5,140	6.1	7,303	235	3.1
Nov	77,830	6,500	7.8	7,212	308	4.1
Dec	74,930	8,960	10.7	7,003	535	7.1
1949						
Jan	73,020	10,810	12.8	6,941	600	7.9
Feb	71,390	12,460	14.8	6,803	750	9.9
Mar	68,800	15,130	18.0	6,559	1000	13.2
Apr	68,390	15,450	18.4	6,494	1050	13.9
May	66,840	15,740	19.0	6,406	1100	14.6
Jun	68,980	15,780	18.6	6,374	1200	15.8
Jul	69,870	15,650	18.3	6,384	1200	15.8
Aug	71,660	15,330	17.6	6,695	850	11.2
Sep	73,790	12,840	14.8	6,723	800	10.6
Oct	67,980	13,230	16.3	6,670	850	11.3
Nov	72,750	15,160	17.3	6,500	1000	13.3
Dec	72,750	13,810	15.9	6,600	1000	13.2
1950						
Jan	72,770	14,580	16.7	6,580	1020	13.4
Feb	73,070	14,740	16.8	6,600	1000	13.2
Mar	71,890	16,260	18.4	6,420	1180	15.5
Apr	71,750	16,280	18.5	6,350	1250	16.4
May	74,200	13,700	15.6	6,600	1000	13.2
Jun	76,700	11,200	12.7	6,800	900	11.7

Source: Michigan Unemployment Compensation Commission, Marquette Branch

years from 1947 to 1949 reveals an accelerating loss for the Upper Peninsula. The current loss of six million in deposits may mark the beginning of critical conditions.

In bringing Upper Peninsula economic trends up to date the final table in this series shows the employment picture during 1948 and 1949. A comparison of the Peninsula and the Marquette area are illustrated in this study. *Table 18* shows the recent fluctuations in employment opportunity.

Table 18 indicates that the months of August to October in 1948 were ones of maximum or full employment in both the Upper Peninsula and the Marquette area. The 1940 census of employment revealed that 10.5 percent of the city of Marquette's labor force was seeking work. Today approximately the same situation exists. Likewise, from the standpoint of the entire Peninsula, a study* made in 1945 by Messrs. A. H. Burrows, W. P. Cochran and E. L. Pearce estimated that the post-war unemployment would be 17.5 percent of the Peninsula's labor force. This estimate is very near being accurate, particularly if the present drop from the 1948 high can be interpreted as a return to normal conditions.

Local economy: City of Marquette.

The local economy will be presented in the same general pattern as that of the region so that comparisons can more easily be made. The first table in this group shows the sources of employment for 1940 in the city of Marquette. *Table 19*, indicates the distribution of the city's employed labor force during 1940. Again, as in the case of the Peninsula, it is safe to assume that percentage-wise much the same pattern of employment exists within the city today except that most sources employ larger numbers. Marquette, unlike other cities in the country, did not have war industries develop within its limits. Consequently, its total manufacturing capacity is much the same in 1949

*SECOND ANNUAL PROGRESS REPORT OF THE UPPER PENINSULA TECHNICAL AND INDUSTRIAL COMMITTEE: Subcommittee Report on Economics: August 21, 1945: A. H. Burrows, chairman, W. P. Cochran and E. L. Pearce.

table 19 | City of Marquette: Employment: 1940
Employed workers by industry group (except on public emergency work)

Source of Employment	Male	Female
Agriculture	22	2
Forestry (except logging and fishery)	13	0
Coal Mining	0	0
Other Mines and Quarries	14	0
Construction	208	4
Food and Kindred Products (Mfg.)	90	7
Textile-Mill Products (Mfg.)	0	1
Apparel & Other Fabricated Textile Products (Mfg.)	1	7
Logging	28	0
Saw Mills & Planing Mills	92	3
Furniture, Store Fixtures Misc. Wooden Goods (Mfg.)	154	23
Printing, Publishing and Allied Industries	71	9
Chemicals and Allied Products (Mfg.)	259	5
Petroleum and Coal Products (Mfg.)	1	0
Stone, Clay and Glass Products (Mfg.)	3	1
Iron and Steel and Their Products (Mfg.)	12	0
Non-Ferrous Metals and Their Products (Mfg.)	8	0
Machinery (Mfg.)	100	5
Automobiles and Automotive Equipment (Mfg.)	1	0
Transportation Equipment (Mfg.) Except Auto	4	0
Other and Not Specified Mfg. Industries	20	2
Railroads (incl. R.R. repair shops) and Ry. Express	567	15
Trucking Service	24	0
Other Transportation	74	0
Communication	36	43
Utilities	62	4
Wholesale Trade	116	15
Food and Dairy Products Stores and Milk Retailing	157	43
Eating and Drinking Places	64	53
Motor Vehicles and Accessories Retail and Filling Station	83	2
Other Retail Trade	295	165
Finance, Insurance and Real Estate	108	37
Automobile Storage, Rental and Repair Services	59	5
Business and Repair Services, except Auto	32	3
Domestic Service	23	150
Hotels and Lodging Places	39	30
Laundering, Cleaning and Dyeing Services	23	34
Misc. Personal Services	42	40
Amusement, Recreation and Related Services	27	12
Professional and Related Services	201	352
Government	346	59
Industry not Reported	56	30
Total	3,535	1,161

Source: U. S. Bureau of the Census

table 20 City of Marquette: Retail Trade Survey: 1939

(Payroll and Sales Listings in thousands of dollars)

Business Type	Number of Stores	Sales	Active Proprietors of Unincorporated Businesses	Number of Employees (av. for yr.)	Total Payroll
Grocery, Combination Stores	39	1,485	39	107	92
Other Food Stores	22	243	25	39	24
General Stores (with food)	1	—	—	—	—
General Merchandise Group	7	779	3	104	80
Apparel Group, except Shoe Stores	20	581	20	78	62
Shoe Stores, (all kinds)	3	71	2	7	7
Furniture, Household-Radio Group	8	360	7	50	56
Automotive Group	11	715	10	61	69
Filling Stations	26	513	24	37	32
Lumber and Building Materials Dealers	1	269	2	48	59
Plumbing, Paint, Electrical Stores	3	—	—	—	—
Hardware Stores	3	304	4	28	38
Farm Implement-Tractor Dealers	1	—	—	—	—
Restaurants, other Eating Places	9	178	10	58	30
Drinking Places	15	176	17	34	21
Drug Stores	5	209	7	26	25
Liquor Stores (packaged goods)	2	—	—	—	—
Fuel, Ice, Fuel Oil Dealers	3	374	2	29	23
Feed Stores, Farm and Garden Supplies	1	—	—	—	—
Jewelry Stores	3	50	4	4	4
Other Stores	17	219	17	21	15
Total All Stores	200	6,660	195	753	654

Source: U. S. Bureau of the Census

as it was in 1940. During this period some wholesale and retail trades were abandoned, yet others have taken their place.

Table 20 gives the detailed analysis of the retail trades in the city of Marquette. Comparing the census survey of retail establishments in 1929 with the 1939 figures shown in *Table 20*, disclosed that the total number of stores has increased from 182 to 200, yet net sales dropped from \$7,732,000 in 1929 to \$6,660,000 in 1939. However, the publication of Sales Management, *Survey of Buying Power*, of

May 10, 1948 indicated that total retail sales in the city of Marquette for 1947 totalled \$16,255,000.

Table 21 on wholesale trade changes from 1929 to 1939, shows that the number of firms has almost doubled within the city during this period as has the number of employees. The general post-war prosperity of wholesaling is indicated by the estimated increase in net sales of 1947.

table 21 | City of Marquette: Wholesale Trade: 1929 and 1939

Year	Number of Wholesale Establishments	Employees Average for Year	Salaries and Wages	Net Sales
1929	17	128	207,453	4,119,761
1939	32	229	335,000	4,773,000
1947*	—	—	—	14,048,000

Sources: U. S. Bureau of the Census

*Sales Management, *Survey of Buying Power*: May 10, 1948

The statistics which are presented in this section show how the people are employed locally and in the region. They also show how many people are working and how many are out of work. The statistics indicate how much money the people have saved, as well as, how much they have available to spend. All of these are basic facts which are entered into this section for reference purposes. The remainder of the statistical data will indicate the past trends in employment within the city of Marquette and also the trends in cost of living from 1941 to 1949.

Table 22 gives the employment status of the city of Marquette's population during the depression year 1935 and 1940. In 1935, twenty-four percent of the total city labor force was unemployed. By 1940, the unemployed had been reduced to ten percent of the city's labor force. And on the basis of the present day unemployment in the Marquette area, which includes only the eastern half of Marquette County, it is estimated that the 1949 unemployment within the city is substantially the same as it was in 1940.

table 22 | City of Marquette: Employment Status: 1935

Employment Status	Male	Female
Population 15 Years of Age and Over	5,550	4,872
Not seeking work	1,790	3,739
Percent not seeking work	32.3	76.7
Employable (working or seeking work)	3,760	1,133
Percent employable	67.7	23.3
Total Employable Population	3,760	1,133
Gainfully employed	2,700	905
Unpaid family workers	14	36
Not working—illness, injury, strikes	5	2
Unemployed—Total	1,041	190
With previous work experience	974	152
With no previous experience	67	38
Percent Distribution		
Total Employable Population	100.0	100.0
Gainfully employed	71.8	79.9
Unpaid family workers	0.4	3.2
Not working—illness, injury, strikes	0.1	0.2
Unemployed—Total	27.7	16.8
With previous work experience	25.9	13.4
With no previous work experience	1.8	3.4

Source: Michigan Census of Population and Unemployment: 1936

City of Marquette: Employment: 1940

Employment Status	Male	Female
Persons 14 years old and over	6,543	5,845
In labor force	4,404	1,320
Percent of population—14 years old and over	67.3	22.6
Employed (except on public emergency work)	3,535	1,161
Wage and salary workers	3,038	1,041
Employers and own-account workers	459	83
Unpaid family workers	6	19
Class of workers not reported	32	18
On public emergency work (W.P.A., N.Y.A. etc.) (10.5%)	354	70
Seeking work	515	89
Experienced workers	447	55
New workers	68	34
Not in labor force	2,139	4,525
Engaged in own home housework	24	3,541
In school	693	649
Unable to work	405	215
In institutions	799	7
Other and not reported	218	113

Source: U. S. Bureau of the Census

Table 23 City of Marquette: Cost of Living Index: September, 1941 = 100

Date	All Items	Food	Clothing	Rent	Fuel Electricity Gas and Ice	Household Furnish- ings	Misc. Services and Commodities
15 Sep 1941	100.0	100.0	100.0	100.0	100.0	100.0	100.0
15 Dec 1941	103.0	105.3	104.1	100.3	100.6	103.6	101.7
15 Mar 1942	107.6	112.4	112.5	100.3	100.4	107.3	105.3
15 Jun 1942	109.8	116.9	115.1	100.1	100.4	107.5	105.9
15 Sep 1942	110.9	119.7	115.7	99.9	100.4	107.7	105.9
15 Dec 1942	113.1	124.7	115.8	99.7	100.5	107.7	107.3
15 Mar 1943	115.6	131.2	115.6	99.7	100.5	107.8	107.5
15 Jun 1943	118.2	136.1	115.7	99.7	106.2	108.3	108.7
15 Sep 1943	116.4	130.1	117.0	99.7	106.2	109.3	109.3
15 Dec 1943	117.3	130.6	117.2	99.7	106.2	109.5	112.7
15 Mar 1944	115.7	126.4	118.8	98.6	106.2	109.6	112.6
15 Jun 1944	116.2	126.6	118.8	98.6	107.5	110.8	114.1
15 Sep 1944	117.4	129.6	119.2	98.6	107.6	110.8	114.5
15 Dec 1944	117.4	129.4	119.8	98.6	107.6	110.9	114.2
15 Mar 1945	117.5	128.5	120.2	98.7	111.2	111.0	114.2
15 Jun 1945	119.3	133.1	120.3	98.7	112.2	111.0	114.5
15 Sep 1945	119.0	132.0	120.6	98.7	112.4	110.9	114.8
15 Dec 1945	119.2	133.1	120.7	98.7	110.3	110.0	114.8
15 Mar 1946	119.0	131.1	120.6	98.7	115.0	111.4	115.1
15 Jun 1946	121.7	135.9	122.2	98.7	115.0	116.4	118.8
15 Sep 1946	130.0	154.4	125.9	98.7	120.3	117.1	121.9
15 Dec 1946	140.3	178.2	129.4	—	120.5	120.7	127.5
15 Mar 1947	141.2	177.7	132.8	—	120.9	122.9	130.7
15 Jun 1947	141.6	180.0	134.1	—	123.1	122.3	131.3
15 Sep 1947	146.9	189.9	136.1	—	132.2	125.9	135.2
15 Dec 1947	150.4	196.5	139.2	—	133.2	129.1	138.4
15 Mar 1948	150.0	192.9	141.5	—	135.3	132.1	138.9
15 Jun 1948	157.9	202.3	140.7	—	145.9	132.3	144.1
15 Sep 1948	159.6	202.7	141.8	—	152.5	134.4	146.6
15 Dec 1948	158.5	197.8	142.2	—	152.7	134.8	147.6
15 Mar 1949	154.3	187.7	132.2	—	153.1	133.0	149.0
15 Jun 1949	155.2	190.7	131.3	—	154.3	129.5	149.7
15 Sep 1949	155.2	193.0	127.8	—	153.7	126.1	149.3
15 Dec 1949	153.2	186.8	127.2	—	153.7	125.6	148.9
15 Mar 1950	152.6	183.8	126.6	—	155.5	128.5	147.1
15 Jun 1950	154.9	190.8	126.4	—	156.4	127.6	148.8

Source: Michigan Department of Labor Division of Statistics and Finance

The final portion of the review of local economy deals with the cost of living. *Table 23* shows that the period from September to December in 1948 was the highest in terms of cost of living of any period since 1941. It was also during this same period that virtual full employment was reached in the Marquette area. Since this time, the cost of clothing and household furnishings have markedly declined, while fuel, electricity, gas and ice have continued to increase in cost.

Table 24 compares Marquette's cost of living with other cities in Michigan and indicates that it costs as much to live in Marquette as it does in most other cities in Michigan. The table also shows that the larger cities of Battle Creek, Lansing and Grand Rapids have had lower living costs than Marquette since 1947.

General summary of local and regional economy.

From the statistics that have been presented here it can be said that the Upper Peninsula witnessed prosperous post-war financial conditions which reached a peak in October of 1948. Since that time unemployment increased considerably and has held to an average of some 17 percent. However, bank deposits, which fell gradually in 1948 showed a precipitous drop in 1949. The drop in deposits with a rather high incident of unemployment has resulted in generally depressed conditions for the Peninsula as a whole. The Marquette area, on the other hand is faring substantially better than the region.

Retail and wholesale trade which were at high levels from 1943 to 1947 have undoubtedly fallen considerably after 1948 although figures are not available for accurate comparison.

Employment estimates for June 1950, as shown in *Table 13*, indicate that for the Upper Peninsula, manufacturing, construction and transportation and communications activities are employing larger numbers than in 1940. Mining is virtually the same today as in 1940 as is wholesale and retail trade. Business and personal services have shown the largest decrease in employed workers.

table 24 | Cost of Living Index: Comparative Study: Michigan Cities: September, 1941=100

date	Average: Michigan cities	Marquette	Battle Creek	Lansing	Flint	Detroit	Grand Rapids	Saginaw, Bay City
15 Sep 1941	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
15 Dec 1941	102.8	103.0	102.1	103.2	102.6	102.8	102.5	100.0
15 Mar 1942	106.9	107.6	105.0	107.3	107.5	106.9	106.8	107.1
15 Jun 1942	108.5	109.8	107.0	109.5	110.3	108.2	108.3	109.7
15 Sep 1942	108.4	110.9	107.7	109.6	109.9	108.0	108.8	110.9
15 Dec 1942	111.3	113.1	110.4	112.7	113.5	110.8	112.1	113.9
15 Mar 1943	113.7	115.6	112.7	115.0	117.1	113.1	114.4	117.2
15 Jun 1943	116.2	118.2	114.4	117.5	119.4	115.7	115.3	119.5
15 Sep 1943	114.3	116.4	114.4	116.5	118.4	113.5	115.0	118.2
15 Dec 1943	115.1	117.3	114.2	117.2	118.6	114.4	116.0	118.7
15 Mar 1944	114.3	115.7	112.6	116.5	118.1	113.6	114.8	117.8
15 Jun 1944	116.0	116.2	113.7	118.1	119.2	115.5	115.6	119.1
15 Sep 1944	116.7	117.4	116.3	118.5	119.8	116.2	116.3	119.3
15 Dec 1944	116.8	117.4	116.7	118.1	119.5	116.3	117.4	119.6
15 Mar 1945	116.6	117.5	115.9	118.1	118.9	116.1	117.4	119.7
15 Jun 1945	119.6	119.3	117.9	121.4	121.1	119.3	119.3	121.9
15 Sep 1945	119.5	119.0	118.6	120.8	120.7	119.3	119.1	121.3
15 Dec 1945	120.1	119.2	119.7	120.6	121.3	119.8	120.4	122.3
15 Mar 1946	120.5	119.0	118.5	120.4	120.7	120.6	119.7	121.6
15 Jun 1946	124.1	121.7	121.5	123.1	122.5	124.5	121.4	125.4
15 Sep 1946	132.9	130.0	130.8	129.7	130.0	133.8	129.6	131.0
15 Dec 1946	139.4	140.3	137.0	137.4	138.9	139.7	139.3	138.2
15 Mar 1947	142.1	141.2	138.3	138.0	141.3	142.8	141.0	138.4
15 Jun 1947	143.9	141.6	140.6	141.6	142.3	144.8	141.0	140.4
15 Sep 1947	148.1	146.9	148.9	145.9	147.1	148.5	147.5	145.2
15 Dec 1947	153.2	150.4	151.8	148.5	151.1	154.2	151.0	148.6
15 Mar 1948	153.1	150.0	152.1	149.2	151.3	153.9	152.0	148.0
15 Jun 1948	158.3	157.9	158.3	154.1	156.6	159.2	156.2	153.6
15 Sep 1948	159.2	159.6	159.8	155.8	157.4	160.0	156.7	155.3
15 Dec 1948	157.1	158.5	158.2	155.8	155.8	157.7	155.6	154.4
15 Mar 1949	154.8	154.3	156.9	155.3	149.1	155.8	151.9	151.7
15 Jun 1949	155.9	155.2	156.6	155.1	150.7	156.9	152.1	153.1
15 Sep 1949	154.4	155.2	154.3	153.9	148.6	155.5	150.5	152.3
15 Dec 1949	153.0	153.2	153.1	153.3	146.4	154.3	149.7	149.2
15 Mar 1950	152.3	152.6	152.9	152.2	144.8	153.6	150.0	149.8
15 Jun 1950	156.8	154.9	157.3	154.5	148.4	158.9	152.0	152.6

Source: Michigan Department of Labor Division of Statistics and Finance

One of the major problems of the Peninsula is how to develop a more stable employment program. The current loss of population and mild depression are direct results of this unsolved problem. More research than is here presented will be required for its solution.

From the standpoint of local economy, much the same employment conditions that prevailed in 1940 are present in 1950. The facts that have been presented show Marquette's cost of living to be comparable with lower state cities and generally on the decline. There has been little overall expansion of industry and commercial plant facilities, yet existing sources of employment are using slightly larger numbers of the labor force today than in 1940. Although conditions are relatively stable, the downward trend of the Peninsula may cause similar conditions within the city in the near future.

Future business and industry in Marquette.

The Marquette Planning Board is not a promotional organization and because of this fact does not have the authority to actively solicit industry or business to locate within the city. This function is carried out by the Marquette Chamber of Commerce. However, it is within the scope of Planning Board activities to study local and regional industrial and business conditions and to make their studies and reports available to the Chamber of Commerce. The City Plan is one example of this type of relationship.

The Planning Board's purpose, as outlined in its enabling legislation, is to study the resources of the community and make plans for their most constructive usage. Consequently, the Planning Board's most direct concern is with the industrial and commercial uses of land, it is within the scope of the Board to recommend zoning regulations and prepare a land use plan for guidance purposes. Both of these have been accomplished.

In terms of future industrial and commercial expansion the primary activity of the Planning Board has been to reserve, through zoning legislation, adequate areas that meet the requirements of modern industry and business. It is difficult to ascertain with any

accuracy what future needs of this nature will be, yet if the experience over the past ten years can be used as an indicator, the total acreage is relatively small. The proposed new zoning ordinance has provided an additional 240 acres of undeveloped land for industrial expansion.

Likewise, in reserving property for industry and general business, the proposed new zoning ordinance specifies that dwellings are prohibited from locating in these areas. This has been done to retain adequate amounts of land in an undeveloped state. When homes are allowed to be built at random on land suitable for industry or business, the acquisition cost becomes prohibitive for new enterprises.

In the case of properties in the general business district which are now occupied with dwellings, the new ordinance permits existing dwellings to remain but prohibits new ones from being built. At the present time there are a number of old residences on valuable business street frontage which have caused the business district to unduly decentralize.

Neighborhood shopping areas.

Neighborhoods were defined in the residential plan as areas providing for a full and convenient homelife. This implies that services are necessary to neighborhood life as much as playgrounds or centers for social gathering. But essentially a good neighborhood is one that is quiet and safe for children and adults alike. It should never be interspersed with stores or commercial establishments. Neighborhood stores and other services are properly located on main thoroughfares which define the periphery or border of a neighborhood area. It is clearly seen that when stores are permitted to develop at random within residential areas that service trucks and trailers would be traversing most residential streets on their daily schedules. Consequently, neighborhood shopping centers are located conveniently on the fringe of a neighborhood residence area. In Marquette the neighborhood shopping centers are designated on Third Street, Presque

Isle Avenue, Lincoln Avenue and on Wright Street. These areas are defined more accurately on the proposed new zoning map.

It must be understood that the function of a neighborhood shopping district is merely to provide stores and services which are required in fulfilling day to day homelife needs. This means that primarily grocery, drug, and similar stores should be located in the neighborhood areas as well as services such as shoe repair, pressing shops, beauty and barber shops. Automotive repair or other larger commercial uses requiring the use of machinery would properly be included in the industrial or general business districts.

Recommendations of the Marquette Planning Board.

All of the specific recommendations of the Planning Board regarding industrial and commercial land use are incorporated in the proposed new zoning ordinance. The main principles that have guided the Board have been presented in this section.

Aside from the future industrial and commercial expansion which is guided by zoning, the Board recommends that modernization of existing facilities be encouraged as well as the eventual conversion of business district dwellings into commercial uses.



Transportation plan

8

Transportation plan . . . *The foregoing illustration shows the main traffic arteries in the city of Marquette. A close study of the photograph reveals the three basic elements of the transportation plan, namely, pedestrian, rail and motor traffic. These three basic elements are pictured in the form of sidewalks, railroad tracks and trestle, and local streets, highways and parking areas.*

At the outset of this section it should be noted that because of the size of the city and its situation in the region, no detailed traffic studies have been prepared. The city of Marquette has too little traffic internally to warrant the preparation of origin and destination surveys and also its situation in the region is one of remoteness from other large centers. It does not have through metropolitan-type traffic, but rather the city is more of a terminal for inter-regional traffic. The traffic problems in Marquette are not beyond the scope of local ability to solve.

The problems to be covered in this section are three-fold. Streets, highways and parking will be discussed in that order along with the recommendations of the Marquette Planning Board.

Street problems in Marquette.

Outside of the regular maintenance of the city's 53 miles of paved streets, much remains to be done to bring all existing streets to 100% usefulness. There are over 12 miles of road within the city that are not graded, 27 miles require bituminous surface treatment and 6 miles of street require rebuilding.

There are other lesser problems involving the city's streets which can be worked out by local committee action. Joint meetings of

the Police Department, Chamber of Commerce Transportation Committee and Planning Board should evaluate the present truck routes and also the existing system of stop-streets. The high school students and their parents suggested that 'walk—do not walk' lights be considered for Washington and Front Streets. This is particularly a sound recommendation because of the left turns made at this intersection.

Likewise, street names and numbers should be studied in committee by the City Assessor, Post Office Department and Planning Board. There are at present street segments, which never will be connected, that use one name. This is true in the case of McClellan and Garfield Avenues and Waldo Street.

In connection with future streets, the master plan map shows how an integrated pattern of streets could be developed. This map which is a part of the City Plan indicates the completed street pattern in the Shiras Hills area, as well as in the area between Wright Street and Fair Avenue. The map represents in physical terms the future recommended street pattern to be used as a general guide for subdivision platting. It is recognized that where topography or other more important factors suggest deviation from the plan, that such changes should be made. However, the overall land use plan should be reconsidered in terms of each street change that is made.

Highway problems in Marquette.

From the standpoint of highways, there are two considerations to be made. One is the relocation of highway U. S. 41 which now passes through the business district of the city. The second is the retention of the highway approaches in their natural state by the exclusion of billboards in these areas.

The State Highway Department has prepared mapped information on its basic studies of highway relocation and has forwarded this material to the Marquette Planning Board. In 1948, when the mapped information was sent to the Planning Board, the project was in an

inactive stage. The State Highway Department suggested that when the project for the new location of the Marquette and Negaunee highway again becomes active, the Highway Department would cooperate with the Marquette Planning Board.

In regard to the billboards that are now situated on the approaches to the city, a number of suggestions have been made for their eventual removal. The proposed new zoning ordinance contains a chapter on signs and in effect calls for the removal of billboards within a period of two years. This recommendation is not a negation of the value of billboard advertising in general but is directed solely toward absentee advertisers. In other words, billboards and signs are permitted upon premises where the advertised products are sold. This is merely a step in encouraging greater advertising responsibility.

Parking problems in Marquette.

The parking conditions in Marquette have been reviewed by the Planning Board in terms of the business district and all other districts combined. The recommendations for the business district are not in final form. However, tentative proposals have been made to improve the parking space behind the Savings Bank Building and to acquire additional property in the Main Street area for metered parking.

General surveys of business district parking have been made during peak shopping periods and they have shown that for the present, parking conditions are not critical but will present a growing problem in the immediate future if adequate space is not acquired.

The business district in Marquette is relatively compact and when additional parking space is provided in a central location all portions of the district will benefit. Consequently, it is more expedient to follow this type of policy rather than to develop small lots in scattered areas.

Parking in residential and industrial districts has been met by provisions incorporated in the proposed new zoning ordinance. The

ordinance specifies that for all new dwellings one space must be provided on the lot for each resident family. Industries are to provide off-street parking in the relationship of one space for every six of their permanent employees. Similar requirements are to be met by other activities in varying proportions. These requirements are discussed in greater detail in the section on zoning.

Summary of transportation problems.

Transportation and related problems are not beyond the scope of local ability to solve and at the present time none of these problems are critical.

Street problems of paving and rebuilding can be met by the Public Works Department of the city by a capital outlay program that is estimated to cost \$150,000. This program properly executed would be spread over a period of six years.

The analysis of local traffic can be evaluated by local authorities and the naming and numbering of streets are within the jurisdiction of the group mentioned.

A program of coordinating State Highway Department plans with those of the city has been inaugurated by the Marquette Planning Board. Billboard regulations have been incorporated into the new zoning ordinance.

The problem of business district parking is in the process of being solved, with outlying parking and unloading regulations being taken care of through zoning legislation.



One of the new buildings needed
in the public school program

School and civic plan

9

School and civic plan . . . *Thus far, residential, recreation, industrial, and transportation needs have been discussed. The fifth and final plan is devoted to the evaluation of Marquette's elementary and secondary schools and other public facilities.*

Marquette schools.

Over 20 per cent of Marquette's total city population attend elementary and secondary schools daily during the school year. In light of this large segment of our city's inhabitants who use the various school plants, it becomes evident that the plants themselves represent one of the most important of our civic and cultural responsibilities. For this reason, in drafting a city plan, an evaluation of our present educational facilities is necessarily an integral part of any complete planning process.

This section on schools is intended to serve as a factual reference which has drawn together for study purposes records from the public, parochial and non-public school systems. The importance of illustrating the entire educational system rather than the public one alone is brought out by the fact that of the student membership in Marquette schools, 44 percent or nearly one half are in the parochial and non-public systems combined.

School plants, like residences or commercial structures represent a land use. The purpose of this section then, is to bring out facts which are related to the present and future adequacy of our school plants in terms of contemplated land use.

It is true that the internal structure of the school plant should augment the instructional program and that the plant provide a satisfactory environment in which the program may be efficiently carried on. The Planning Board study has not evaluated the curriculum, but dealt solely with plant location, size and relationship to general population trends in the community.

The population trends in the city, county and region were discussed in general terms in an earlier section. The present section will cover in greater detail facts relating to the school age population within the city of Marquette.

There are many trends in population which have a direct bearing upon the future of the school system. The number of children in the varying age groups, the birth rate and the past history of school attendance are some of the more important factors to be watched.

The national trend of a smaller percentage of young people and also the general aging of population are trends found to exist in Marquette. *Table 25*, below, compares the distribution of population by age groups for the years 1930 and 1940. From this table it can be clearly seen that there has been a marked decline in the percentage of children under 14 years of age. The table also shows a corresponding increase in the percentage of people over 45 years old. However, from the standpoint of the age group under 14 years old, an increase over 1940 can be expected in the 1950 census. This increase can be attributed to the rise in birth rate from 18 per thousand inhabitants in 1940 to 28 per thousand in 1947. The effect of this rise in birth rate will be evidenced most noticeably in the 1951 school census data.

table 25 | City of Marquette: Population Distribution by Age Groups

Age Group	Percent Population in Each Age Group	
	1930	1940
Under 5	8.8	7.5
5-9	9.8	7.6
10-14	9.3	8.9
15-19	9.3	9.4
20-44	38.3	39.4
45 and over	24.5	27.2

Source: U. S. Bureau of the Census.

The fact that the number of school children, in proportion to the total population, is slowly diminishing can be shown in still another way. This is to correlate the annual school census figures of the children between 5 and 19 with the total estimated city population for the same years. *Table 26* shows the percentage that the school census represents of the total city population. It indicates that the school age group has narrowed from 33.3 per cent of the city population in 1904 to 22 per cent in 1950. The average for the country since 1940 has held close to 26 per cent and was expected to decrease to 25 per cent by 1950. In this respect Marquette has fallen faster during the war years, but will in all probability rise to 24 or 25 per cent when the large birth rate in 1946 and 1947 become apparent in the school census figures.

table 26 | City of Marquette: School Census and Percent of Total Population

Year	School Census	Percent	Year	School Census	Percent
1950	3,776	22.8	1938	4,132	27.5
1949	3,820	23.4	1937	4,047	27.3
1948	3,773	23.0	1936	4,141	28.2
1947	3,776	23.4	1935	3,916	26.8
1946	3,870	26.9	1934	3,982	27.6
1945	3,786	26.8	1933	4,098	28.7
1944	3,789	26.6	1932	4,038	28.6
1943	3,833	26.0	1931	4,100	29.4
1942	3,930	25.8	1930	4,003	28.8
1941	3,961	25.9	1920	3,582	29.9
1940	4,127	27.4	1910	3,335	30.8
1939	4,117	27.4	1904	3,317	33.3

Source: Superintendent of Marquette Schools.

table 27 | City of Marquette: Birth Rates: 1927-1949

Year	Rate Per 1,000	Year	Rate Per 1,000
1949	23.7	1937	18.7
1948	26.3	1936	16.7
1947	28.6	1935	15.1
1946	25.6	1934	14.7
1945	17.6	1933	17.8
1944	17.8	1932	16.8
1943	19.7	1931	17.7
1942	19.7	1930	16.8
1941	18.4	1929	20.4
1940	17.9	1928	17.7
1939	16.7	1927	20.4
1938	17.7		

Brief mention was made of the birth rate in the foregoing discussion. Yet, in regard to the expected necessity of enlarging present facilities, recent trends in the local birth rate should be brought out. From the study of Marquette's population from 1927 to 1949 the birth rate has been calculated on a yearly progressive basis and is presented in *Table 27*. This table illustrates the fact of the high birth rate of 20.4 in 1927 it was never exceeded until 1946, when it reached 25.6. This table, since it follows through the depression years, also bears out the national trend of a diminishing rate as economic conditions grow in an adverse direction, reaching a trough during the bottom of the depression and gradually rising as times grow better. A slight increase in birth rate will also be noted in 1942 and 1943 during the early part of the national induction program and a drop during the war years. Again the slight increase during 1942 and 1943 will affect the school membership picture with an increase of elementary school students in 1948 and 1949, but the large increase will be

reached in 1951 and 1952 due to the all time high birth rate in 1946 and 1947.

It was noted earlier that over twenty percent of the population of Marquette is attending school. The breakdown of the number in attendance for the various age groups is illustrated in *Table 28* from the 1940 Bureau of the Census figures.

table 28 | City of Marquette: School Attendance, 1940

Age Group	Number	Attending School	Percent Attending School
5 and 6 years old	472	370	78.4
7 and 13 years old	1,866	1,850	99.1
14 and 15 years old	590	558	94.6
16 and 17 years old	563	474	84.2
18 to 20 years old	925	313	33.8
21 to 24 years old	1,105	110	10.0

Source: U. S. Bureau of the Census

The present school plant.

In reviewing the status of the school plants in the city of Marquette a detailed study was made of the following factors: (1) general age of the school structures, (2) size of school sites, (3) school capacity and membership trends since 1927, (4) play area requirements in terms of membership and amount of expansion area available and (5) location of students in relation to existing school sites.

In measuring the adequacy of the school buildings in terms of age alone, it is generally considered by school authorities that most buildings over 50 years old are obsolete for present day instructional purposes. *Table 29* lists, in order of most recent construction, all of the school buildings in the city of Marquette. This table shows that six of our ten schools already are 50 years old or over and that a seventh is approaching the age of obsolescence.

table 29 | City of Marquette: School Buildings

Name of School	Year Built	Age in 1950	Controlling Authority
St. Michaels	1949	1	Parochial
*Fisher	1936	14	Public
Graveraet	1927	23	Public
John D. Pierce	1925	25	Non-Public
Baraga	1903	47	Parochial
Froebel	1900	50	Public
Cathedral	1899	51	Parochial
Nester	1895	55	Public
North Marquette	1893	57	Public
St. Johns	1890	60	Parochial
*Fisher	1870	80	Public

*Denotes 4 original classrooms of 1870 and 4 additional rooms built in 1936.

Table 30 indicates the actual sizes of the sites in square footage and acres. Playground areas are also indicated. From this table we note that the largest site is that of St. Michael's elementary school amounting to 3.4 acres, the other sites all being of a smaller size. School authorities today are recommending that elementary school sites include from 3.5 to 5 acres where school and playground are combined. Likewise from 10 to 20 acres are recommended for junior and senior high school sites, which in both cases includes athletic field and area for expansion.

Playground space for elementary schools can be determined by providing 100 square feet per pupil and 200 square feet per pupil for junior high schools. Athletic fields, of course, will vary depending upon the activities that are provided for.

Tables 31 and *32*, respectively, indicate the trend of school membership and general school plant summary. It should be noted in *Table 32*, in regard to the school capacity column, that the first figure represents the present room capacity and the second

the school capacity. For example, the Froebel school has a total of 7 permanent rooms with an average capacity of 40 each, which in turn gives the school a capacity of 280. Present day school standards would consider 35 to 40 students per room desirable in elementary schools, 30 to 35 per room in junior high schools and 30 students per room in senior high school. This standard would show an over-crowding in all but one parochial school, St. John's School. The public schools are all within capacity standards.

table 30 City of Marquette: Size of School Sites: 1950

School	Site Sq.Ft.	Area Acres	Bldg. Sq.Ft.	Area Acres	Grounds Area Sq.Ft.	Member- ship 1948	Play Area Sq.Ft.	Desirable Play Area Sq.Ft.
Graveraet	67,500	1.57	31,660	.73	35,840	276	4,000	27,600
Froebel	70,000	1.60	19,762	.45	50,238	259	10,000	25,900
Fisher	42,900	.98	5,726	.13	37,174	271	26,000	27,100
Nester	28,860	.64	2,680	.06	26,180	162	000	16,200
No. Marquette	35,000	.81	4,316	.10	30,684	102	21,000	10,000
Howard Jr. High	70,000	1.60	19,762	.45	50,238	264	10,000	52,800
Marquette High	67,500	1.57	31,660	.73	35,840	514	4,000	261,360
Cathedral	105,600	2.40	2,400	.06	103,200	200	103,200	20,000
St. John's	24,000	.55	4,725	.11	19,275	124	9,000	12,400
St. Michael's	150,000	3.40	5,280	.12	144,720	369	000	36,900
Baraga	123,552	2.83	10,000	.23	113,552	192	91,552	19,200
Baraga High	123,552	2.83	10,000	.23	113,552	242	91,552	261,360
John D. Pierce	89,600	2.05	13,200	.30	76,400	298	000	29,800
Pierce High	89,600	2.05	13,200	.30	76,400	112	000	261,360
Shiras Hills*	144,500	3.31	—	—	—	—	—	—

*Shiras Hills site deeded to public schools in 1948.

table 31 | City of Marquette: School Membership Data

Year

Name of School

Elementary	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
	406	345	306	291	320	350	359	360	317	329	316	257	267	261	239	251	209	230	205	232	234	259	
Froebel																							
Fisher	73	67	74	109	103	97	85	67	80	69	298	254	303	254	262	265	220	237	257	253	258	271	
Nester	92	115	127	124	116	107	91	105	117	113	173	162	168	145	144	119	114	122	136	141	139	162	
Graveraet Grades																							
	317	328	336	308	278	297	273	290	278	222	231	240	250	250	223	217	216	237	234	231	276		
North Marquette	141	121	116	110	113	116	100	82	77	93	92	107	116	126	109	97	86	75	79	90	90	102	
Junior High (Howard)	268	287	292	315	309	304	293	287	322	344	363	407	448	397	359	330	319	310	300	291	278	264	
Third and Fourth	191																						
Olcott	175	159	154	149	153	157	154	170	174	166													
Hampton	121	103	113	113	123	133	127	111	108	93													
Special Facilities	17	16	17	18	17	17	15	20	27	42	39	41	37	34	35	29	26	28	28	29	19	17	
Total Elementary	1484	1530	1527	1565	1562	1559	1521	1475	1512	1527	1503	1459	1579	1467	1398	1314	1191	1218	1242	1270	1249	1351	

public

Secondary																						
Marquette High School	439	463	466	506	568	637	650	640	632	623	682	704	717	764	756	706	627	600	594	613	585	614
Total Membership	1923	1993	1993	2071	2130	2196	2171	2115	2144	2150	2185	2163	2296	2231	2154	2020	1818	1818	1836	1883	1834	1965
Total City Population	14380	14501	14621	14789	14867	15003	15095	15260	15363	15439	15553	15704	15817	15928	15973	15949	15503	15022	14910	15604	16894	17288
Percent in Public Schools	13.4	13.7	13.6	14.0	14.3	14.6	14.3	13.8	14.0	13.7	14.0	13.8	14.5	14.0	13.5	12.7	11.7	12.1	12.3	12.1	10.8	11.4
Percent in Elementary	10.3	10.5	10.4	10.6	10.5	10.4	10.1	9.7	9.9	9.9	9.7	9.3	9.9	9.2	8.7	8.2	7.7	8.1	8.4	8.4	7.4	7.8
Percent in Secondary	3.1	3.2	3.2	3.4	3.8	4.2	4.2	4.1	4.1	4.2	4.3	4.5	4.6	4.8	4.8	4.5	4.0	4.0	3.9	3.9	3.4	3.6
SCHOOL CENSUS	3819	3873	3956	4003	4100	4038	4098	3984	3916	4141	4047	4132	4117	4127	3961	3930	3833	3789	3786	3870	3776	3773

Elementary

Baraga	•	•	•	•	209	195	228	•	259	266	275	259	248	241	229	229	232	230	205	193	190	192
Cathedral	•	•	•	•	•	307	270	329	•	299	300	297	277	257	240	211	168	164	160	203	194	200
St. John's	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	143	137	141	151	133	138
St. Michael's																	80	145	210	260	291	324
Total Elementary	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	620	680	741	819	811	852

parochial

Baraga High School	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--

Elementary

John D. Pierce	323	369	363	345	381	345	327	295	314	300	314	339	345	345	323	328	310	294	283	301	293	298
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Secondary

John D. Pierce	119	118	123	131	131	129	135	112	116	109	116	110	111	112	117	113	104	96	95	98	101	112
Total Membership	542	487	486	476	512	474	462	407	430	409	430	449	456	457	440	441	414	390	378	399	394	410

Total Membership	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
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• Records not available.

total

table 32 | City of Marquette, 1948: Summary of Educational Facilities

Public Schools													
Name of School	Location	Date Built	Grades	Number Original Classrooms	Number Classrooms Added	Number Permanent Rooms	School Capacity	Present Membership	Number Instructors	Area of Plot (Acres)	Play-Area (Needed)	Auditorium (Capacity)	Gymnasium (Size)
Elementary													
Froebel	Pine Street	1900	K-6	7	0	7	40/280	259	8	1.60		250	
Fisher	Fisher Street	1870-1936	K-8	4	4	8	40/320	271	8	.98			
Nester	W. Bluff Street	1895	K-6	40/3	35/2	5	190	162	5	.64			
Graveraet Grades	N. Front Street	1927	K-6	8	0	8	35/280	276	9	1.57		953	
North Marquette	Fitch Avenue	1893	K-6	1	3	4	40/160	102	4	.81			
Junior High	Pine Street	1900	7-8	12	0	12	35/420	264	12	1.60		250	
Secondary													
Marquette High	N. Front Street	1927	9-12	26	0	26	30/780	614	32	1.57		953	
Parochial Schools													
Elementary													
Baraga	S. Fourth Street	1903	5-8	4	0	4	50/200	192	9	2.83		400	
Cathedral	S. Fourth Street	1899	K-4	5	0	5	45/225	200	7	2.40			
St. Johns	Bluff Street	1890	1-8	5	0	5	40/200	124	4	.55			
St. Michaels	W. Kaye Avenue	1900	K-8	5	4	9	45/405	369	9	3.40			
Secondary													
Baraga High	S. Fourth Street	1903	9-12	13	0	13	42/300	242	15	2.83		400	
Non-Public Schools													
Elementary													
John D. Pierce	W. Kaye Avenue	1925	K-8	9	0	9	35/315	298	12	2.05			
Secondary													
John D. Pierce High	W. Kaye Avenue	1925	9-12	10	0	10	120	112	10	2.05		1450	

Now briefly summarizing the findings of this section we found the following conditions to exist: (1) six of our schools are at present obsolete from the age criteria with a seventh approaching this age, (2) all of our present school sites are small with the exception of St. Michael's site and the new one deeded to the public schools in Shiras Hills, (3) playground area at the Graveraet site is acutely small, both Froebel-Howard and St. John's somewhat better and no area is provided at St. Michael's or at John D. Pierce, (4) the room capacities in all the public schools meet present standards, while all the parochial schools with the exception of St. John's are over-crowded, (5) auditorium space is lacking at the Fisher, Nester, North Marquette, Cathedral, St. John's, St. Michael's and John D. Pierce elementary schools, and (6) from the school population maps that were prepared, the city is comprehensively covered by the walking distance standard in all sections except the extreme western portion of the city.

It should be noted before closing this discussion on school plants, that in evaluating the school buildings themselves a thorough inspection should be made of each building. Not only are accessibility and size of site important, but the buildings should also be judged from the standpoint of structural soundness, adequacy of classroom facilities, state of efficiency of heating, lighting and sanitary facilities and also from the point of view of fire protection.

School plant recommendations.

The Marquette Board of Education submitted its recommendations for public school plant improvement in 1948. These plans were reviewed and augmented in 1949 by the Michigan Department of Public Instruction. The recommendations that are presented here are a composite of these previous studies including those of the Marquette Planning Board.

All authorities are agreed that the Froebel-Howard school buildings should be abandoned and that the site is improperly located for new construction. It is, therefore, recommended that this property be eventually sold and the funds be earmarked for construction in other parts of the city.

The Fisher School is well located and the plans are to replace the old section for which drawings have already been prepared. This would provide the south neighborhood with an adequate modern elementary school plant. In connection with the Fisher School, additional area behind the school should be developed for playground purposes.

In north Marquette the existing school building should be abandoned while the site could be retained for neighborhood playground purposes. The Nester School likewise is inadequate for modern educational purposes and its abandonment is also recommended. Thus the discontinuance of the North Marquette School and Nester School would require the construction of two new elementary schools. Two tentative sites near Lincoln Avenue appear to be well located for the eventual replacement of the North Marquette School. One site is located on the corner of Lincoln Avenue and Wright Street, being the former fair grounds property. The other site is located between Wright Street and Fair Avenue on Norway Avenue. A site to build a replacement for the Nester School is located on Seventh Street between Hewitt and Michigan. The latter site was originally recommended by the Planning Board as being well located for a new high school. However, its acreage is adequate to take care of a new neighborhood elementary school with ample land for playground facilities which are now lacking at the Graveraet site.

The recommendations as now formulated would encourage the acquisition of the entire block between Third and Front Streets and Hewitt and Ohio for the extension of high school and junior high school facilities. All elementary grades would be removed and the enrollment diverted to the proposed Seventh Street School and to a possible new elementary school east of Front Street in the vicinity of Crescent Street.

A final recommendation is to construct a fifth elementary school in the vicinity of Lincoln Avenue and Cleveland Street when the population growth would warrant such an expansion.

These recommendations if carried to completion would provide Marquette with a centrally located high school and junior high school with enlarged gymnasium facilities and manual arts departments. The city would also have five elementary schools located conveniently in each neighborhood with ample playground space. Such a program would also take care of all future population growth and provide centrally located elementary school plants. The proposed school plant program is shown on the master city plan map.

Marquette armory.

The Marquette Planning Board, in its study of school and civic needs, also reviewed local armory needs. The factors considered in armory requirements included: (1) size of site; (2) contemplated use of land and (3) general activities that would be provided.

After conferences with the Marquette Armory Board a site of 3.5 acres was set as the minimum size with areas of 4.5 to 5 acres deemed most desirable. A relatively level site for personnel training and vehicle movement was also an important consideration.

The contemplated use of the land included the provision of space for the armory building, company shop to be used for vehicle maintenance and storage and also provision for a battalion shop.

General activities that would be provided for, include in the armory building proper, a drill floor, office space, supply rooms, locker and strong rooms, kitchen and classrooms to accommodate a force of approximately 200 men. It was also intended that the armory building be made available for community use.

In March, 1949, the Marquette Planning Board met with representatives of the Michigan National Guard and specific sites were recommended and reviewed during this time.

Armory recommendations.

Following the study and review of possible armory sites, the Marquette Planning Board in its meeting of March 24, 1949 recommended that the following area be offered to the Military Establishment of the State of Michigan for armory purposes:

- a. The south 240 feet of Block 9 of Harlow's Addition No. 1.
- b. An area 150 x 200 feet located in Block 8 of Harlow's Addition No. 1; said parcel being bounded on one side by Bluff Street and extending 100 feet east and west from a north-south centerline drawn through Block 8.

At this time the Board also went on record to stipulate that the following four conditions be considered in the event that the property was acceptable by the Military Establishment:

- a. A five year reverter clause should be provided in the deed.
- b. The described property contained in Block 8 should be restricted solely for the use of the main armory building of permanent masonry construction.
- c. Vehicle parking and all auxiliary buildings intended for such uses as vehicle storage and repair are expressly restricted from being erected or placed on any portion of Block 8.
- d. All buildings erected or placed on any portion of Block 9, whether for vehicle storage, repair, or any other use must be of permanent masonry construction.

The full details of the Planning Board's recommendation are recorded in the minutes of the March 1949 meeting.

Peter White Public Library.

The Peter White Library, opened on September 23, 1904, has had its collection expand from 13,500 volumes in 1904 to over 50,000 volumes today. This increase of nearly 400% has resulted in a shortage of stack space. Then, too, library service has changed greatly in this past half century. Special subject rooms and music rooms are now

being provided in the newer libraries. On the basis of past growth and anticipated future growth, the Peter White Library will of necessity require extension and remodeling if it is to provide up to date service for the community.

The Library Board is cognizant of these needs and tentative plans are being prepared for the enlargement and modernization of the library. Such a modernization program would include the redesign of the interior to provide a single point of control for all library circulation. This would bring all adult and children's rooms to one level, leaving the lower level for workroom and the higher levels for stacks.

The library is well located for existing and future purposes. Adequate property exists on the Ridge Street side for expansion purposes. Thus, primary attention should be given the improvement of the existing building.

Library Recommendations.

The Planning Board, being interested in the improvement of all city buildings, is gratified to see that planning is being done for library improvement. The Planning Board recommends that all final plans of the Library Board to be reviewed by a consulting library architect to insure that all contemplated changes are in keeping with the most current practices in library design.

General City Improvement.

Outside of the schools, library and armory, the Planning Board has studied the needs of the city departments. A breakdown of the past history of city spending is furnished in the section on the capital outlay program together with the estimated capital requirements of the city departments. However, there are a number of improvements which should be noted at this time.

Central Fire Department.

The Planning Board recommends that the existing facilities on Spring Street be abandoned. And it is further recommended that a new building be constructed on the Front Street site with additional property being acquired for the enlarged building. It is proposed that the new building house three pumping engines, a 100 foot aerial truck, chief's car and ambulance together with adequate provision for offices, equipment storage and the like. The board likewise suggests the acquisition of new fire fighting equipment including the pumping engines, aerial truck and the provision of a new fire alarm system.

Central City Garage and Warehouse.

The facilities on Spring Street have been found to be far from adequate to house city equipment. The Planning Board recommends that a site located on Wright Street and Lincoln Avenue, now owned by the County Road Commission, be acquired and a garage and warehouse be erected for the purpose of repair and storage of city equipment. The proposed new structure should be large enough to accommodate all Public Works Department equipment and materials.

With the abandonment of city buildings on Spring Street the board suggests that the vacant sites be used for off-street parking purposes, thereby providing additional space in the southern portion of the business district.

Utility expansion.

Rather than to go into details of the plans that are under consideration for utility expansion, it should be noted that the Planning Board is aware of the proposals to complete the construction of the sewage disposal plant for which working drawings are on hand. The need to rehabilitate the electric utility is also imminent. A proposed policy

for the expansion of water and sewer lines in connection with subdivision development was discussed in the earlier section on residential conditions in the city. And the project list which appears in the Capital Outlay Program provides a complete picture of the water extension projects which are planned for the next six year period. The project list also summarizes general city needs which have not been mentioned in other portions of the City Plan.

Capital Outlay Program.

Throughout the entire City Plan reference has repeatedly been made to the various improvements needed in Marquette. However, methods of financing the projects have received little attention. The final section of this report will cover this important phase of the planning process.

In the past improvements have often been made in cases where negligence had aroused sufficient public concern to demand action. Special interest groups, vocal minorities and other similar groups have also constituted effective forces in securing capital outlay funds, particularly for their own projects. Then again, some needs were foreseen and steps taken to remedy the conditions without any coercion by the general public. But never before has there been an attempt to anticipate all needed improvements for the foreseeable future with the intention of organizing the projects into a financial program. In essence that is the purpose of a capital outlay budget.

The capital outlay budget is one that is comprised solely of large scale expenditures which can be considered as additions to the fixed assets of the city. The capital budget is prepared to cover a period of time of five or more years, whereas the current budget is for one year. Likewise, the capital budget is exclusively devoted to capital expenditures. The current budget contains both current and capital expenditures.

In order to prepare a capital outlay program it is necessary to determine both anticipated revenues and expenditures over an ex-

tended period of time. At the outset of this study a survey was made of the sources of revenue and expenditures from 1940 to 1949. By reviewing the history of city finances for the past ten years, a more accurate estimate can be made of future revenues, particularly for capital improvements.

The following factual data on the history of city finances is given in full so that it may be used by the city commission in its subsequent studies of improvement projects. This data includes the revenues and expenditures of all the governmental activities by funds. The activities included are: (1) general city; (2) water department; (3) electric utility; (4) library and (5) the public schools.

Financial history of the City of Marquette

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Financial history of the City of Marquette . . . *From the previous tables particular attention is drawn to the summary sheet which indicates the percentage that capital outlays have represented of total fund expenditures. This clearly points out the lack of improvement during the war years and the large increase during the past four years. In order to adequately meet present needs it is safe to say that at least twenty per cent of annual expenditures must be set aside for capital outlay purposes over a six year period.*

It is also recommended that in all future annual city audits a continuation of the present data be included. A breakdown of expenditures and revenues on this basis will prove valuable at a time when the city commission is in a position to officially adopt its first capital outlay budget.

Preparation of the capital outlay budget.

It has already been stated that the primary requirement in setting up a capital outlay budget is a history of city finances. This has been presented in *Table 33* through *Table 39*. The second step is to ascertain what city improvements are necessary and estimates of their cost. This information has also been compiled through the cooperation of the city departments. Project sheets were distributed and estimates of costs including engineering, land acquisition, equipment, labor, materials and other expenses have been completed. All projects considered necessary within the forthcoming six year period have been reviewed by the various city departments and a total cost including the items mentioned has been prepared. *Table 40* gives a complete breakdown of these projects.

table 33aSummary of Expenditures Years 1940 to 1949, Inclusive

Year	Expenditure Purpose	General Fund	Municipal Electric Utility	Municipal Water Utility	Peter White Library Fund	Marquette Public Schools	TOTAL	Percent	Add: Transfers (Inter-Fund)	TOTAL EXPENDITURES
1940	Operating Expenditures	233,458.32	161,687.67	35,092.73	19,195.31	195,215.52	644,649.55	83		
	Capital Outlay	73,517.65	21,803.42	3,906.95	161.22	29,196.46	128,585.70	17		
	Total	306,875.97	183,491.09	38,999.68	19,356.53	224,411.98	773,235.25	100	131,727.36	904,962.61
1941	Operating Expenditures	254,763.84	155,818.44	37,074.29	18,594.75	215,654.95	681,906.27	79		
	Capital Outlay	74,420.29	38,256.71	5,730.81	80.55	68,018.29	186,506.65	21		
	Total	329,184.13	194,075.15	42,805.10	18,675.30	283,673.24	868,412.92	100	186,858.65	1,055,271.57
1942	Operating Expenditures	252,522.61	151,939.27	41,400.56	20,706.11	216,332.35	682,900.90	87		
	Capital Outlay	35,788.70	11,517.84	2,233.95	—	53,891.66	103,432.15	13		
	Total	288,311.31	163,457.11	43,634.51	20,706.11	270,224.01	786,333.05	100	108,824.88	895,157.93
1943	Operating Expenditures	260,906.10	156,937.74	40,020.65	23,314.00	225,373.34	706,551.83	95		
	Capital Outlay	6,107.01	1,736.45	—	94.14	30,115.84	38,053.44	05		
	Total	267,013.11	158,674.19	40,020.65	23,408.14	255,489.18	744,605.27	001	184,888.53	929,493.80
1944	Operating Expenditures	264,396.01	159,685.47	39,901.94	23,547.08	226,044.70	713,575.20	93		
	Capital Outlay	2,670.31	13,091.15	539.69	28.50	36,699.24	53,028.89	07		
	Total	267,066.32	172,776.62	40,441.63	23,575.58	262,743.94	766,604.09	100	191,513.43	958,117.52
1945	Operating Expenditures	276,307.42	145,543.58	41,679.85	21,804.76	242,512.66	727,848.27	92		
	Capital Outlay	9,518.90	3,688.62	4,116.21	147.53	44,832.85	62,304.11	08		
	Total	285,826.32	149,232.20	45,796.06	21,952.29	287,345.51	790,152.38	100	257,650.54	1,047,802.92
1946	Operating Expenditures	319,256.33	225,682.19	52,637.47	26,894.41	272,086.11	896,556.51	77		
	Capital Outlay	53,259.39	157,816.67	4,872.21	128.35	44,616.64	260,693.16	23		
	Total	372,515.72	383,498.86	57,509.68	27,022.76	316,702.65	1,157,249.67	100	154,752.37	1,312,002.04
1947	Operating Expenditures	376,969.34	276,924.05	60,079.22	30,544.00	357,139.74	1,101,656.35	74		
	Capital Outlay	35,215.87	288,839.51	25,612.09	271.97	53,749.69	383,689.13	26		
	Total	412,185.21	545,763.56	85,691.31	30,815.97	410,889.43	1,485,345.48	100	157,852.64	1,643,198.12
1948	Operating Expenditures	398,116.73	421,934.78	56,532.09	34,150.38	374,945.78	1,285,679.76	80		
	Capital Outlay	45,388.75	111,755.29	97,769.93	—	58,962.33	313,876.30	20		
	Total	443,505.48	533,690.07	154,302.02	34,150.38	433,908.11	1,599,556.06	100	84,735.50	1,684,291.56
1949	Operating Expenditures	430,117.19	375,909.66	69,206.34	34,691.79	435,682.74	1,345,607.72	86		
	Capital Outlay	30,118.04	75,771.48	41,490.94	296.42	64,715.84	212,392.72	14		
	Total	460,235.23	451,681.14	110,697.28	34,988.21	500,398.58	1,558,000.44	100	—	1,558,000.44
TOTALS	Operating Expenditures	3,066,813.89	2,232,062.85	473,625.14	253,442.59	2,760,987.89	8,786,932.36	83		
	Capital Outlay	366,004.91	704,277.14	186,272.78	1,208.68	484,798.74	1,742,562.25	17		
	TOTALS	3,432,818.80	2,936,339.99	659,897.92	254,651.27	3,245,786.63	10,529,494.61	100	1,458,803.90	11,988,298.51

table 33a | Summary of Expenditures
Years 1940 to 1949, Inclusive

Year	General Fund	Municipal Electric Utility	Municipal Water Utility	Peter White Public Library	Marquette Public Schools	TOTAL	Add: Transfers (Inter-Fund)	TOTAL REVENUES
1940	133,534.24	320,143.07	57,205.78	15,979.01	224,828.39	751,690.49	131,727.36	883,417.85
1941	174,158.11	346,710.16	55,004.44	16,377.70	263,400.25	855,650.66	186,858.65	1,042,509.31
1942	167,096.12	348,556.75	59,364.58	18,961.08	267,856.90	861,835.43	108,824.88	970,660.31
1943	135,399.96	336,264.47	66,564.31	18,231.55	256,467.12	812,927.41	151,329.01	964,256.42
1944	142,776.62	352,885.48	59,604.84	19,264.71	259,917.82	834,449.47	126,631.92	961,081.39
1945	154,639.32	370,441.24	61,134.03	19,010.68	286,584.73	891,810.00	178,696.21	1,070,506.21
1946	261,184.74	421,249.01	67,705.53	20,178.33	316,751.61	1,087,069.22	332,147.73	1,419,216.95
1947	337,835.07	454,981.08	70,610.04	20,499.91	382,839.96	1,266,766.06	157,852.64	1,424,618.70
1948	388,829.03	576,313.50	72,496.28	23,173.43	469,305.74	1,530,117.98	10,634.00	1,540,751.98
1949	419,807.76	638,003.99	95,580.90	35,759.70	529,896.28	1,719,048.63	74,101.50	1,793,150.13
TOTALS	2,315,260.97	4,165,548.75	665,270.73	207,436.10	3,257,848.80	10,611,365.35	1,458,803.90	12,070,169.25

table 34aGeneral Fund — Expenditures Years 1940 to 1949, Inclusive

Year	Expenditures Purpose	Public Affairs	Accounts and Finance	Health Department	Police Department	Fire Department	Public Works	Parks	Recreation	Street Equipment Reserve Fund	Project Fund	TOTAL	Add: Transfer to Peter White Public Library Fund	TOTAL EXPENDITURES
	Operating	37,785.41	7,266.02	6,482.28	22,053.02	35,832.56	81,788.32	19,799.47	6,331.72	—	16,119.52	233,458.32		
	Capital Outlay	16,648.66	313.49	20.25	2,304.79	648.65	20,893.82	124.08	36.50	—	32,527.41	73,517.65		
	Total	54,434.07	7,579.51	6,502.53	24,357.81	36,481.21	102,682.14	19,923.55	6,368.22	—	48,646.93	306,975.97	1,600.00	308,575.97
1940	Operating	35,496.99	7,428.94	6,091.07	23,764.39	36,413.67	82,697.46	21,550.98	9,893.28	20,662.90	10,764.16	254,763.84		
	Capital Outlay	4,794.00	93.55	—	26.72	41.89	7,710.03	588.75	—	4,975.33	56,210.02	74,420.29		
	Total	40,290.99	7,522.49	6,091.07	23,791.11	36,455.56	90,407.49	22,119.73	9,893.28	25,638.23	66,974.18	329,184.13	2,650.00	331,834.13
1942	Operating	42,991.27	7,770.03	6,334.92	24,484.76	39,244.07	82,405.24	18,457.60	10,007.97	14,438.21	6,388.54	252,522.61		
	Capital Outlay	12,428.05	232.03	—	799.85	21.17	4,276.26	1,264.33	—	—	16,767.01	35,788.70		
	Total	55,419.32	8,002.06	6,334.92	25,284.61	39,265.24	86,681.50	19,721.93	10,007.97	14,438.21	23,155.55	288,311.31	2,890.00	291,201.31
1943	Operating	53,007.33	7,956.35	6,288.63	25,575.52	50,596.27	76,889.50	24,834.84	15,757.66	—	—	260,906.10		
	Capital Outlay	—	93.00	—	—	680.45	5,333.56	—	—	—	—	6,107.01		
	Total	53,007.33	8,049.35	6,288.63	25,575.52	51,276.72	82,223.06	24,834.84	15,757.66	—	—	267,013.11	3,738.50	270,751.61
1944	Operating	36,730.71	9,465.15	6,747.18	28,608.84	54,484.77	81,737.47	29,006.20	17,615.69	—	—	264,396.01		
	Capital Outlay	—	270.00	—	—	232.31	2,168.00	—	—	—	—	2,670.31		
	Total	36,730.71	9,735.15	6,747.18	28,608.84	54,717.08	83,905.47	29,006.20	17,615.69	—	—	267,066.32	6,587.50	273,653.82
1945	Operating	37,973.41	10,282.68	6,824.19	28,059.11	55,622.75	89,800.43	31,757.59	15,987.26	—	—	276,307.42		
	Capital Outlay	—	240.76	—	—	47.95	7,846.00	550.50	833.69	—	—	9,518.90		
	Total	37,973.41	10,523.44	6,824.19	28,059.11	55,670.70	97,646.43	32,308.09	16,820.95	—	—	285,826.32	5,956.50	291,782.82
1946	Operating	38,649.96	10,383.27	7,586.42	32,407.93	65,183.81	98,709.69	44,810.22	21,525.03	—	—	319,256.33		
	Capital Outlay	15,702.00	157.40	—	2,672.49	2,473.63	30,997.77	1,256.10	—	—	—	53,259.39		
	Total	54,351.96	10,540.67	7,586.42	35,080.42	67,657.44	129,707.46	46,066.32	21,525.03	—	—	372,515.72	5,640.50	378,156.22
1947	Operating	53,866.32	10,013.05	8,261.29	39,841.61	71,405.57	126,230.65	39,832.26	27,518.59	—	—	376,969.34		
	Capital Outlay	10,050.00	134.02	159.64	1,470.41	134.61	18,084.40	5,182.79	—	—	—	35,215.87		
	Total	63,916.32	10,147.07	8,420.93	41,312.02	71,540.18	144,315.05	45,015.05	27,518.59	—	—	412,185.21	6,790.00	418,975.21
1948	Operating	58,791.07	11,518.77	10,991.84	43,103.18	78,229.51	129,688.94	35,711.82	30,081.60	—	—	398,116.73		
	Capital Outlay	175.97	1,409.11	54.98	1,461.00	223.50	37,432.27	4,631.92	—	—	—	45,388.75		
	Total	58,967.04	12,927.88	11,046.82	44,564.18	78,453.01	167,121.21	40,343.74	30,081.60	—	—	443,505.48	17,634.00	454,139.48
1949	Operating	59,960.92	13,037.63	10,857.46	47,157.32	79,765.03	146,774.78	44,333.61	28,230.44	—	—	430,117.19		
	Capital Outlay	194.28	793.80	192.75	214.31	2,228.66	24,621.91	1,703.36	168.97	—	—	30,118.04		
	Total	60,155.20	13,831.43	11,050.21	47,371.63	81,993.69	171,396.69	46,036.97	28,399.41	—	—	460,235.23	—	460,235.23
TOTALS	Operating	455,253.39	95,121.89	76,465.28	315,055.68	566,778.01	996,722.48	310,094.59	182,949.24	35,101.11	33,272.22	3,066,813.89		
	Capital Outlay	59,992.96	3,737.16	427.62	8,949.57	6,732.82	159,364.92	15,281.83	1,039.16	4,975.33	105,504.44	366,004.91		
	TOTAL	515,246.35	98,859.05	76,892.90	324,005.25	573,510.83	1,156,086.50	325,376.42	183,988.40	40,076.44	138,776.66	3,432,818.80	46,487.00	3,479,305.80

table 34b | General Fund—Revenues: Years 1940 to 1949, Inclusive

Year	General Property Taxes	Other Local Taxes	Licenses and Permits	Fines, Forfeitures and Penalties	Revenue from Use of Money and Property	State Collected Taxes and Grants in Aid	Service Charges	Sale and Compensation for Loss of Property	Street Equipment Reserve Fund Rentals	TOTAL	Add: Transfers Municipal Light Utility	Municipal Water Utility	TOTAL REVENUES
1940	41,141.53	44,737.39	8,415.45	3,077.40	3,272.47	30,200.21	2,689.79	—	—	133,534.24	106,030.42	24,096.94	263,661.60
1941	42,867.96	45,234.22	8,470.30	3,402.57	6,178.31	31,802.74	3,628.12	—	32,573.89	174,158.11	156,119.57	28,089.08	358,366.76
1942	44,876.47	46,094.89	8,037.70	3,380.22	5,204.03	30,686.15	3,466.63	271.20	25,078.83	167,096.12	100,790.68	5,144.20	273,031.00
1943	40,793.19	45,965.11	7,662.40	2,598.60	4,897.28	28,802.84	4,624.25	56.29	—	135,399.96	137,554.36	10,036.15	282,990.47
1944	42,872.59	45,974.16	7,841.35	2,089.72	4,786.22	31,469.59	5,316.70	2,426.29	—	142,776.62	108,039.98	12,004.44	262,821.04
1945	42,062.17	46,234.40	8,069.45	2,324.65	4,156.59	43,676.20	8,115.86	—	—	154,639.32	162,346.61	10,393.10	327,379.03
1946	90,219.38	46,187.40	19,662.36	2,931.80	9,137.56	85,135.46	7,910.78	—	—	261,184.74	89,206.73	—	350,391.47
1947	90,485.15	49,299.02	23,878.71	6,286.40	12,325.33	144,841.01	9,694.04	1,025.41	—	337,835.07	151,062.64	—	488,897.71
1948	108,776.87	55,112.36	23,765.71	1,730.00	10,289.31	172,827.95	15,726.83	600.00	—	388,829.03	—	—	388,829.03
1949	120,025.09	59,463.56	24,247.55	1,689.00	14,677.14	182,687.95	16,750.87	276.60	—	419,807.76	—	—	419,807.76
TOTALS	664,120.40	484,292.51	140,050.98	29,510.36	74,924.24	782,130.10	77,923.87	4,655.79	57,652.72	2,315,260.97	1,011,150.99	89,763.91	3,416,175.87

table 35aMunicipal Electric Utility: Expenditures Years 1940 to 1949, Inclusive

Year	Operating Expenditures			Capital Outlay			Add: Transfers			Municipal Water Utility	TOTAL EXPENDITURES
	Functional Expenditures	Taxes Paid to City	Expenditures Foreign to Function	Capital Outlay	Debt Retirement	TOTAL	General Fund	Special Reserve			
1940	124,949.57	35,869.19	868.91	21,803.42	—	183,491.09	106,030.42	—	—	—	289,521.51
1941	119,138.62	36,288.88	390.94	38,256.71	—	194,075.15	156,119.57	—	—	—	350,194.72
1942	111,974.51	37,044.94	2,919.82	11,517.84	—	163,457.11	100,790.68	—	—	—	264,247.79
1943	104,231.91	36,872.02	15,833.81	1,736.45	—	158,674.19	137,554.36	26,560.97	—	—	322,789.52
1944	118,747.68	36,898.27	4,039.52	13,091.15	—	172,776.62	108,039.98	45,307.57	—	—	326,124.17
1945	107,216.32	37,151.09	1,176.17	3,688.62	—	149,232.20	162,346.61	69,669.47	—	—	381,248.28
1946	187,207.19	37,024.56	1,450.44	157,816.67	—	383,498.86	89,206.73	55,488.58	—	—	528,194.17
1947	235,755.39	40,102.62	1,066.04	268,839.51	—	545,763.56	151,062.64	—	—	—	696,826.20
1948	376,528.07	45,406.71	—	111,755.29	—	533,690.07	—	—	74,101.50	—	607,791.57
1949	328,113.15	47,796.51	—	38,821.01	36,950.47	451,681.14	—	—	—	—	451,681.14
TOTALS	1,813,862.41	390,454.79	27,745.65	667,326.67	36,950.47	2,936,339.99	1,011,150.99	197,026.59	74,101.50	—	4,218,619.07

table 35bMunicipal Electric Utility: Revenues Years 1940 to 1949, Inclusive

Year	Electricity Sales	Other Revenues	TOTAL	Add: Transfer from Special Reserve	TOTAL REVENUES
1940	319,590.83	552.24	320,143.07	—	320,143.07
1941	343,831.50	2,878.66	346,710.16	—	346,710.16
1942	345,676.19	2,880.56	348,556.75	—	348,556.75
1943	335,640.24	624.23	336,264.47	—	336,264.47
1944	352,166.19	719.29	352,885.48	—	352,885.48
1945	368,906.77	1,534.47	370,441.24	—	370,441.24
1946	416,111.05	5,137.96	421,249.01	237,300.50	658,549.51
1947	450,144.98	4,836.10	454,981.08	—	454,981.08
1948	570,761.75	5,551.75	576,313.50	—	576,313.50
1949	632,819.94	5,184.05	638,003.99	—	638,003.99
TOTALS	4,135,649.44	29,899.31	4,165,548.75	237,300.50	4,402,849.25

table 36aMunicipal Water Utility: Revenues
Years 1940 to 1949, Inclusive

Year	Operating Income	Add: Transfer from Municipal Elec. Utility	TOTAL REVENUES
1940	57,205.78	—	57,205.78
1941	55,004.44	—	55,004.44
1942	59,364.58	—	59,364.58
1943	66,564.31	—	66,564.31
1944	59,604.84	—	59,604.84
1945	61,134.03	—	61,134.03
1946	67,705.53	—	67,705.53
1947	70,610.04	—	70,610.04
1948	72,496.28	—	72,496.28
1949	95,580.90	74,101.50	169,682.40
TOTALS	665,270.73	74,101.50	739,372.23

table 35a

Municipal Electric Utility:
Expenditures Years 1940 to 1949,
Inclusive

table 36bMunicipal Water Utility—Revenues
Years 1940 to 1949, Inclusive

Year	Operating Income	Add: Transfer from Municipal Electric Utility	TOTAL REVENUES
1940	57,205.78	—	57,205.78
1941	55,004.44	—	55,004.44
1942	59,364.58	—	59,364.58
1943	66,564.31	—	66,564.31
1944	59,604.84	—	59,604.84
1945	61,134.03	—	61,134.03
1946	67,705.53	—	67,705.53
1947	70,610.04	—	70,610.04
1948	72,496.28	—	72,496.28
1949	95,580.90	74,101.50	169,682.40
TOTALS	665,270.73	74,101.50	739,372.23

table 36cMunicipal Water Utility: Expenditures: Years 1940 to 1949, Inclusive

Year	Operating Expenditures		Capital Outlay	TOTAL	Add: Transfer		TOTAL EXPENDITURES
	Functional Expenditures	Taxes Paid to City			General Fund	Special Reserve	
1940	26,224.53	8,828.20	3,906.95	38,999.68	24,096.94		63,096.62
1941	28,128.95	8,945.34	5,730.81	42,805.10	28,089.08		70,894.18
1942	32,350.61	9,049.95	2,233.95	43,634.51	5,144.20		48,778.71
1943	30,927.56	9,093.09	—	40,020.65	10,036.15	6,998.55	57,055.35
1944	30,826.05	9,075.89	539.69	40,441.63	12,004.44	19,573.94	72,020.01
1945	32,596.54	9,083.31	4,116.21	45,796.06	10,393.10	9,284.86	65,474.02
1946	43,474.63	9,162.84	4,872.21	57,509.68	—	4,416.36	61,926.24
1947	50,882.82	9,196.40	25,612.09	85,691.31	—	—	85,691.31
1948	46,826.44	9,705.65	97,769.93	154,302.02	—	—	154,302.02
1949	57,549.29	11,657.05	41,490.94	110,697.28	—	—	110,697.28
TOTALS	379,787.42	93,837.72	186,272.78	659,897.92	85,763.91	40,273.91	789,935.74

table 35b

Municipal Electric Utility:
Revenues Years 1940 to 1949,
Inclusive

table 37a | Peter White Public Library Fund—Revenues: Years 1940 to 1949, Inclusive

Year	Tax Levy	Other Revenues	TOTAL	Add: Transfers from General Fund	TOTAL REVENUES
1940	13,260.00	2,719.01	15,979.01	1,600.00	17,579.01
1941	13,422.00	2,955.70	16,377.70	2,650.00	19,027.70
1942	13,569.00	5,392.08	18,961.08	2,890.00	21,851.08
1943	13,582.50	4,649.05	18,231.55	3,738.50	21,970.05
1944	13,531.50	5,733.21	18,264.71	6,587.50	25,852.21
1945	13,585.50	5,425.18	19,010.68	5,956.50	24,967.18
1946	13,786.50	6,391.83	20,178.33	5,640.50	25,818.83
1947	14,154.00	6,345.91	20,499.91	6,790.00	27,289.91
1948	14,601.00	8,572.43	23,173.43	10,634.00	33,807.43
1949	27,363.59	8,396.11	35,759.70	—	35,759.70
TOTALS	150,855.59	56,580.51	207,436.10	46,487.00	259,923.10

table 37b | Peter White Public Library Fund—Expenditures: Years 1940 to 1949, Inclusive

Year	Operating Expenditures	Capital Outlay	TOTAL EXPENDITURES
1940	19,195.31	161.22	19,356.53
1941	18,594.75	80.55	18,675.30
1942	20,706.11	—	20,706.11
1943	23,314.00	94.14	23,408.14
1944	23,547.08	28.50	23,575.58
1945	21,804.76	147.53	21,952.29
1946	26,894.41	128.35	27,022.76
1947	30,544.00	271.97	30,815.97
1948	34,150.38	—	34,150.38
1949	34,691.79	296.42	34,988.21
TOTALS	253,442.59	1,208.68	254,651.27

table 38a | Marquette Public Schools: Revenues Years Ended 6/30/40 to 6/30/49, Inclusive

Year Ended	Tax Collections	Other Revenues	Taxes Advanced by City	TOTAL	Less: Taxes Advanced by City in Previous Years	NET REVENUES
6/30/40	100,000.00	124,828.39	—	224,828.39	—	224,828.39
6/30/41	91,062.70	153,337.55	19,000.00	263,400.25	—	263,400.25
6/30/42	129,937.30	133,919.60	23,000.00	286,856.90	19,000.00	267,856.90
6/30/43	129,937.30	129,529.82	20,000.00	279,467.12	23,000.00	256,467.12
6/30/44	134,937.30	136,980.52	8,000.00	279,917.82	20,000.00	259,917.82
6/30/45	154,657.00	124,927.73	15,000.00	294,584.73	8,000.00	286,584.73
6/30/46	159,500.00	142,251.61	30,000.00	331,751.61	15,000.00	316,751.61
6/30/47	219,424.36	193,415.60	—	412,839.96	30,000.00	382,839.96
6/30/48	219,424.36	249,881.38	—	469,305.74	—	469,305.74
6/30/49	230,000.00	299,896.28	—	529,896.28	—	529,896.28
TOTALS	1,568,880.32	1,688,968.48	115,000.00	3,372,848.80	115,000.00	3,257,848.80

table 38b | Marquette Public Schools—Expenditures Years Ended 6/30/40 to 6/30/49, Inclusive

Year Ended	Operating Expenditures	Capital Outlay	Debt Retirement	TOTAL EXPENDITURES
6/30/40	195,215.52	2,771.46	26,425.00	224,411.98
6/30/41	215,654.95	42,133.29	25,885.00	283,673.24
6/30/42	216,332.35	28,456.66	25,435.00	270,224.01
6/30/43	225,373.34	5,198.34	24,917.50	255,489.18
6/30/44	226,044.70	6,916.74	29,782.50	262,743.94
6/30/45	242,512.66	5,871.49	38,961.36	287,345.51
6/30/46	272,086.11	5,655.18	38,961.36	316,702.65
6/30/47	357,139.74	14,833.33	38,916.36	410,889.43
6/30/48	374,945.78	20,158.47	38,803.86	433,908.11
6/30/49	435,682.74	25,956.98	38,758.86	500,398.58
TOTALS	2,760,987.89	157,951.94	326,846.80	3,245,786.63

table 39 | Assessed Valuations and Annual Tax Rates
Years 1940 to 1949, Inclusive

Assessed Valuations

Year	Real Estate	Personal Property	Total
1940	7,576,880.00	1,263,120.00	8,840,000.00
1941	7,654,520.00	1,293,480.00	8,948,000.00
1942	7,763,400.00	1,282,600.00	9,046,000.00
1943	7,773,690.00	1,281,310.00	9,055,000.00
1944	7,729,765.00	1,291,235.00	9,021,000.00
1945	7,743,275.00	1,313,725.00	9,057,000.00
1946	7,839,450.00	1,351,550.00	9,191,000.00
1947	8,003,575.00	1,432,425.00	9,436,000.00
1948	8,232,835.00	1,501,165.00	9,734,000.00
1949	13,931,540.00	4,310,850.00	18,242,390.00

Marquette County was reassessed by the state Tax Commission in 1949

Annual Tax Rate (per \$1,000 Valuation)

Year	General City Tax	School Operating and Debt Service	Library Tax	Total Local Taxes	County Taxes	Total
1940	4.41	10.81	1.50	16.72	8.20	24.92
1941	4.47	14.52	1.50	20.49	7.40	27.89
1942	4.42	14.37	1.50	20.29	7.60	27.89
1943	4.31	14.90	1.50	20.71	7.60	28.31
1944	4.32	17.15	1.50	22.97	7.60	30.57
1945	4.31	17.61	1.50	23.42	6.90	30.32
1946	9.68	23.88	1.50	35.06	6.90	41.96
1947	9.43	23.26	1.50	34.19	8.90	43.09
1948	11.00	23.63	1.50	36.13	9.90	46.03
1949	6.46	13.43	1.50	21.39	8.35	29.74

table 40 Proposed Capital Outlays by Departments
Estimates for Six Year Period

Parks and Recreation

<u>Presque Isle</u>	
Bath House	\$56,800
Move Road	4,875
Seal Coat Road	3,650
Replace Toilets	20,600
Add to Buildings	17,100
New Retaining Wall	21,794
Fill Swamp	5,900
Picnic Ground	7,000
Fill in Pool	6,000
Fill Swamp	20,000
<u>Tourist Park</u>	
Utility Building	36,590
Toilet Facilities	10,825
Tables and Benches	3,000
<u>Shiras Park</u>	
Bath House	19,550
<u>Williams Park</u>	
Toilet—Storage Building	3,350
Fence and Corner Wall	4,550
<u>Hurley Field</u>	
Tennis Court and Equipment	8,300
<u>Kirlin Hill</u>	
Skiing Development	6,300
<u>Harlow Park</u>	
Sprinkling System	6,000
Toilet Buildings	5,075
Replace Walkways	4,500
<u>Quarry Pool</u>	
Bath House	9,100

Parks

Motorized Equipment	\$ 3,800
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Cemetery

New Fencing	32,500
Seal Coat Roads	2,475
Drainage Expansion	38,600
Development of Plots	13,200
Extension toward Bluff	25,000
Rec. Vault—Chapel	100,000

Public Works

Sewage Disposal Plant	500,000
Pumping Mains, Station, Sewers	300,000
Storm Sewer System	400,000
Warehouse and Shop	100,000
Widen Pavement	32,750
U.S. 41 Front to Lincoln Conc.	187,500
U.S. 41 Washington to Fisher Conc.	41,000
Shore Protection	8,000
Wright Street Paving	14,000
Sidewalk Repairs	22,500
City-wide Blacktop	22,500
City-wide Road Rebuilding	46,000
Surface Dirt Roads—Final Grade	40,000
Fair Ave. Asphaltting	10,000
Presque Isle Paving	30,000
Remove Ties, Rebuild Pavement	24,000
Rock Street Rebuilding	14,000
Bluff Street Rebuilding	10,000

Fire

1—1000 GPM Pumping Engine	15,000
Central Fire Station	
New Fire Alarm System	15,000
75' to 100' Aerial Truck	20,000

table 40 | continued

Light & Power		Water	
Expansion & Rehabilitation	\$ 750,000	Baraga & Lake to Hampton	\$30,100
		Carp River to Disposal Plant	10,000
		Construction of New Warehouse	35,000
		Fair & Third to College Avenue	17,820
		Michigan & Third to College Avenue	19,600
		Center & Tracy to Eighth Street	1,200
		Center to Kaye on Eighth Street	7,600
		Shiras Hills	15,968
		Blenhuber to Newberry on Division	870
		TOTAL	\$5,452,342

The projects listed in *Table 40* should be screened by the city commission and a priority listing established. It is suggested that the following eight criteria be used as a basis for reviewing each project in determining the priority listing. The criteria are listed in order of their importance and the project meeting the largest number of high criteria should be considered first in priority: (1) protection of life; (2) maintenance of public health; (3) provision of public services; (4) replacement of obsolete facilities; (5) reduction in operating costs; (6) public convenience and comfort; (7) recreational value and (8) social, cultural or esthetic value.

Upon completing a priority listing it is recommended that the projects then be arranged on an annual basis with those with high priority being scheduled for early construction.

Each year the annual operating budget is being prepared, projects from the capital outlay budget for that year should be reviewed and when financial conditions permit, capital improvement projects should be included in the annual operating budget. Likewise, as new needs arise the planning board should incorporate new projects in the capital outlay budget for subsequent annual review by the city commission.

Capital improvements and the business cycle.

Since it will be impossible to undertake the whole five million dollars in capital improvements in the forthcoming six year period it is advisable to have plans and programs prepared in anticipation of sufficient funds. And it is recommended that in the future plans be on hand in the form of a shelf of public works projects which can be deferred for construction when there is a large incident of unemployment in the city. This is especially important in the Marquette area because of the heavy regional reliance upon such extractive industries as copper and iron ore mining and forest product preparation. By having a shelf of deferred public works projects available at all times Marquette will be in a position to assist both state and national efforts to counteract depressions of the business cycle and particularly to decrease local unemployment.

Planning board recommendation.

The planning board recommends that the city commission begin work immediately on the preparation and eventual adoption of a capital outlay budget.

Zoning

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Zoning . . . On December 28, 1925, the city commission adopted a temporary zoning ordinance prepared by City Attorney George P. Brown. It is this temporary "hold over" zoning ordinance which has been in effect for the past 24 years that the Marquette planning board has completely rewritten. Zoning laws have greatly changed in the past twenty years and as a consequence the city of Marquette had been left with an outdated ordinance.

Background information.

Zoning had its beginning in the early and middle 1920's in America and the fact that Marquette adopted its temporary ordinance as early as 1925 indicates that progressive policies were being fostered during that time.

Since 1925, zoning has been upheld by the United States Supreme Court as a valid means of protecting the property rights of the general public. Likewise, the State of Michigan in 1921 passed a public act giving Michigan cities the power to write and adopt their own zoning ordinances.

It is under the terms of this Michigan Public Act number 207 of 1921, as amended, that the Marquette Planning Board prepared the new comprehensive zoning ordinance which was adopted by the city commission on May 16, 1950.

Zoning defined.

To define zoning briefly we can say that it is a general plan which separates the entire city into districts and regulates the placement and size of buildings as well as the nature and extent of their use within each district.

Zoning affects existing buildings and uses of property secondarily. Its primary purpose is to regulate new construction and changes of use which might impair materially the safety, health or welfare of the people living in any area of the city.

In the beginning it might be well to clear up misconceptions that anyone may have regarding the zoning districts. Zoning does not regulate the value or cost of proposed buildings. It does not say that homes or other buildings must be of \$6,000 or \$15,000 in value in any district. It has no jurisdiction over the amount any person wishes to invest in new construction nor does it govern the type of materials one intends to use in construction.

Marquette's new zoning ordinance.

Marquette's new zoning ordinance divides the city into the following six districts: 1. One Family Residence District; 2. General Residence District; 3. Neighborhood Shopping District; 4. General Business District; 5. Greenbelt District and 6. Industrial District.

The following description indicates some of the more significant regulations in each district. The One Family Residence District allows religious, recreational, educational and accessory uses but restricts homes to the single family, detached dwelling type. The General Residence District, which embraces most of the city, permits everything that was enumerated for the One Family Residence District as well as homes for any number of families. The Neighborhood Shopping District only allows stores that supply neighborhood day to day needs such as grocery, drug, shoe repair shops and filling stations. In the General Business District retail and wholesale activities are permitted and it provides for hotels, laundries and auto repair shops but prohibits homes from being built in that area. The Greenbelt District includes the fringe area about the city and the ordinance permits farms and homes on acreage sites. Finally, the Industrial District permits all trades and manufacturing uses which are not noxious but prohibits home construction on land set aside for industry.

Lot area regulations.

Among the more important sections of the new zoning ordinance there are two which directly affect new home construction. The first section requires that all new buildings must have at least 6,000 square feet of lot area with a minimum lot width of 50 feet.

The 50-foot lot is a traditional lot width in Marquette with most lots being 50 feet wide and 150 feet deep. These dimensions date back to the time when homes were built narrow and long. However, since most of the newer types of homes are wider and lower, usually with a garage near the front of the house, it is more desirable for lots to be wider than 50 feet. Lots 60 x 120 feet are considered more desirable in terms of today's building practice. However, 50 feet has been adopted as a minimum width.

Likewise in the Greenbelt district which is comprised largely of acreage, a minimum lot area per home is set at two acres. By keeping the fringe areas of the city in parcels of two acres or more it is possible later, when subdivision is contemplated, to plan streets and lay out lots in a more orderly fashion.

Building heights.

The new zoning ordinance has established maximum building heights as 35 feet or 2½ stories for all buildings to be built in residence, shopping and greenbelt districts. The downtown business district buildings are held to a maximum of four stories or 66 feet, as are the industrial district buildings.

Another important section to home builders is the one which relates to yard requirements. In an effort to protect individual property owners from having others build too close to them or deprive them of due amenities by building too close to the street, the following yard areas must be provided for new homes: Minimum front yard of 20 feet; minimum clear side of 4 feet and minimum rear yard of 25 feet. The sum of the two side yards must be at least 12 feet.

The proposed ordinance also takes into consideration special conditions which may exist in the city and provides for modifications in the older built up areas.

Off-street parking.

With increased use of automobiles, the ordinance calls for the provision of off-street parking space in connection with new building construction. In building a one-family dwelling, a space of 200 square feet must be provided on the lot in the form of a garage or open space reserved for automobile parking. All new multiple family dwellings are required to have a space of 200 square feet, for each family, provided on the same lot for off-street parking.

New hotels would provide one parking space per three guest rooms. New hospitals would provide one space per three patient sleeping rooms. Likewise, theaters are required to provide one space per 10 permanent patron seats and the same is true for all auditoriums, gymnasiums and stadiums. Industrial and business establishments must provide one parking space per six employees.

Had these problems been incorporated in the old ordinance in 1925, Marquette would never have had the parking problem which occurs around Memorial Field and the Palestra during the hockey and football seasons.

The new zoning ordinance specifies that in an industrial or general business district wherever a lot abuts upon a public street, sufficient space for the loading and unloading of vehicles shall be provided on the lot in connection with any wholesale or industrial use so that the street shall at all times be free and unobstructed to the passage of traffic.

Billboard regulations.

Two of Marquette's most valuable assets are its situation on Lake Superior and the fact that it is flanked by wooded mountainous ter-

rain. In an effort to preserve the approaches to the city in their natural setting, as well as to standardize the practice of sign erection within the city, the new zoning ordinance incorporates a section on sign regulation.

The sign regulations in effect prohibit erection of billboards within and on the approaches to the city and require removal of existing nonconforming billboards within a period of two years after the passage of the ordinance.

Signs located in the one family residence district are held to a maximum of four square feet, except that church bulletin boards may not be over ten square feet in area. Similar standards are set for the General Residence District.

In the neighborhood shopping district all signs advertising commercial or professional services, retail commodities and entertainment are permitted provided that a limit of one square foot of sign area is permitted for each lineal foot of frontage occupied. However, in all cases only signs advertising a bonafide business conducted on the premises are permitted.

Today in driving about the city one can find a number of signs advertising products long extinct as well as entertainments of past years. The new ordinance will greatly aid in curbing this type of negligence.

The general business district sign regulations are similar to the neighborhood shopping district, except that three square feet of sign area are permitted for each lineal foot of occupied frontage. Also, in this district, upon application to the Board of Appeals an approval may be sought to authorize a total sign area twice the specified amount in cases where only the name of the business appears on the sign and where such additional sign area is located on a portion of the premises other than the front.

In the greenbelt district the following signs are permitted: Signs pertaining to lease, hire or sale of a building or premises not exceeding four square feet in area; announcement signs for institutions not exceeding 50 square feet in area; signs advertising commodities

offered for sale on the same premises not exceeding 25 square feet and, signs advertising tourist courts or cabins not over 10 square feet in area, provided that all permitted signs be located within lot lines not nearer than 75 percent of the required setback distance and provided further than only one such sign shall be displayed on any one lot or business premises.

Industrial district signs are restricted to announcement signs of trades and industries established on the premises, neither type to exceed 200 square feet and located not nearer than 75 percent of the required setback distance.

A section is also included in the new zoning ordinance which requires all awnings to be no less than seven feet above sidewalk level.

Among the other sections of the ordinance are those dealing with enforcement, validity, changes and amendments, definitions and board of appeals.

Under the new ordinance a five-man board of appeals is established. The board is appointed by the mayor, subject to confirmation of the city commission. This board has the power to hear and decide appeals and to authorize variances in specific cases. The appeal board, however, cannot change or amend the ordinance nor change district boundaries. Only the city commission has authority to change or amend the ordinance subject to public notice and hearing.

Copies of the new ordinance and map are available from the City Clerk.

Summary of conclusions

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Summary of conclusions . . . *Over the past three years the Marquette Planning Board has made specific recommendations for city improvement. Other portions of the City Plan have dealt in detail with most of these suggestions. The final pages of this report will summarize the major improvements deemed necessary by the board. Where sites have been suggested for projects, attention is drawn to the City Plan map.*

Residential and Neighborhood Plan.

The board recommended the preparation and adoption of (1) new zoning regulations and (2) a subdivision ordinance. Both of these ordinances have been completed and enacted into law by the city commission. It was also suggested that home improvement be encouraged and that a positive annual program be prepared with the aid of the Chamber of Commerce. This program would have as its aim the repair, painting and general improvement of residential areas. It was further suggested that this program go beyond the usual clean-up, paint-up campaign. A fourth recommendation was the eventual annexation of the Dead River area property now owned by the city yet under Marquette Township governmental jurisdiction. This area is noted by numeral 1 on the City Plan map.

Recreation Plan.

The Planning Board recommended the expansion of Memorial Field to permit the construction of a much needed hardball field. This project is now in the process of completion. (See numeral 2 City Plan map). The expansion and development of Kirlin Hill is also

included in the board's recommendation and Capital Outlay Program (See numeral 3). A bath house at Shiras Pool, Presque Isle Park is shown by numeral 4. The board recommended, numeral 5, a site at Presque Isle for a future boat basin. No specific location was suggested for a community building aside from the Harlow Park site for an armory building which could also be used as a community building. (See numeral 8). The remaining recommendations for park and recreation improvements are included in the Capital Outlay Program.

Industrial and Commercial Plan.

The primary recommendations in this phase of the program were in the nature of zoning adequate land for industrial expansion. Areas were likewise set aside for neighborhood shopping centers and it was recommended that modernization of business establishments be encouraged. To encourage new industry to locate in Marquette, it was suggested that the Chamber of Commerce develop a program toward such an end. If it were found feasible, the Chamber of Commerce could make a study of the possibility of establishing a building corporation which would purchase an industrial site and construct facilities which could be used by new industry. In any event the active solicitation of industry is a responsibility of the Chamber of Commerce and the Planning Board is pledged to give all assistance possible for local industrial expansion.

Transportation Plan.

At the present time a study of off-street parking is being made. Recommendations will be made to the city commission when the study is completed. The board also is in favor of having a more thorough study made of truck routes and the possibility of developing streets with parking on one side only running north and south. Numeral 6

on the City Plan map indicates the recommended new location of highway U. S.-41. The eventual construction of this new route would greatly alleviate the amount of hazardous trucking that now passes through the main business district. The present route constitutes undue danger to pedestrians and the construction of the new route is highly recommended. A final recommendation for city streets is in regard to renaming streets which have the same name and which at present and in the future will never be connected. The board also suggests that the City Assessor in cooperation with the post office renumber certain blocks which do not conform to present practices.

School and Civic Plan.

Numerals 7A through 7E indicate possible sites for new elementary schools and numeral 7F indicates the expanded site for the extension of the high school and junior high school. The proposed armory site is shown as numeral 8 on the City Plan map. The expansion of the Peter White Library as 9; the site of the new fire station as 10; the Public Works garage as 11; sewage disposal plant 12; and the area for redeveloping the waterfront as 13. Again, other projects recommended by the Planning Board are shown in the Capital Outlay Program. These projects include the construction of new water mains, the rebuilding of streets and sidewalks and the rehabilitation of the electric utility. In conjunction with the improvement of the electric utility, the Planning Board further recommends that extension of service beyond the city limits be undertaken only when the costs of installation, materials and operations can be fully met by the new users. A final note should be made in regard to the redevelopment of the waterfront. This project is envisioned as being beyond the six year period. It includes the establishment of a new bulkhead line, widening of Lake Street for trucking purposes, establishment of building lines for warehouses and fish storage buildings and the provision of off-street parking on the east side of Lake Street.

City Plan map.

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The City Plan map indicates the location of thirteen projects recommended by the Planning Board, as well as the suggested expansion of the street system. As has been stated in the *Foreword* the City Plan that is presented here is the first step toward the development of a better community. When further study has been made, using this City Plan as a pilot report, detailed plans should then be prepared.