



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

AUG 08 2016

REPLY TO THE ATTENTION OF: E-19J

Julie Johnston  
Area Engineer  
Federal Highway Administration  
315 West Allegan Road, Room 201  
Lansing, Michigan 48933

Aaron Johnson, P.E.  
Manager, Ishpeming Transportation Service Center  
Michigan Department of Transportation  
Ishpeming TSC  
100 South Westwood Drive  
Ishpeming, Michigan 49849

**Re: Marquette Hospital Transportation Improvements Project, Marquette, Michigan**

Dear Ms. Johnston and Mr. Johnson:

The U.S. Environmental Protection Agency has reviewed the above-mentioned Environmental Assessment (EA), dated June 2016. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

In 2012, Duke-LifePoint (DLP) purchased the Marquette General Hospital (MGH) and announced that MGH would be relocated to a new site. In 2014, the City of Marquette (City) and DLP reached a purchase agreement to build a new medical campus at 850 W. Baraga Avenue on property owned by the City. Construction of the new campus began in April of 2016, with completion anticipated during the summer of 2018.

Although building a new medical campus is not a Federally-funded undertaking, the project requires a right-of-way permit from the Michigan Department of Transportation (MDOT) to build the proposed improvements. In addition, the proposed improvements would require a change in access due to construction of a new intersection within a segment of US Route 41/Michigan Route 28 ("US-41"). Federal Highway Administration's (FHWA) decision regarding this new access point is a Federal action that triggers NEPA. The preferred alternative as indicated in the EA includes the following:

- Construction of a two-lane roundabout at US-41 and Grove/7th Street;
- Construction of a two-lane roundabout at US-41 and the main hospital drive;
- Construction of a compact roundabout at Baraga Avenue and the main hospital drive;
- Widening of 7th Street to three lanes;
- Minor realignment and widening of W. Baraga Avenue;
- Widening of McClellan Avenue between Washington Street and US-41 to five lanes;
- Signal infrastructure upgrades at the McClellan Avenue and Washington Street intersection;
- and
- Sidewalk upgrades and addition of sidewalk for portions of the project area where no sidewalk is present.

FHWA has determined that proposed transportation improvements are needed to accommodate current and future traffic volumes (approximately 23,000 new trips generated by the proposed hospital), accommodate all modes of travels (pedestrians, bicycles, and vehicles), and enhance safety within the project area based on an analysis of crashes in the project area. Pursuant to our review of the EA, we have the following comments.

### **Project Need**

As stated in Section 1.3.1, Hospital Access, of the EA, “As documented in Section 1.3.2.2 below, future travel demands will increase in the project area due to the hospital relocation and upgraded hospital services. Per the *Marquette Improvements Project Traffic Impact Study* ... the proposed hospital development is forecasted to generate 23,406 trip ends per day. During the AM and PM peak hours, 1,098 and 2,444 trips are expected to be generated by the hospital, respectively.”

**Recommendation:** EPA recommends the last sentence of this section be clarified to indicate that the number of trips stated above are trips per day. This clarification will provide the reader with a better understanding of traffic volume.

### **Project Features/Construction**

As stated in our scoping letter dated March 9, 2016, EPA recommended FHWA consider the use of recycled materials for roadways. Our letter suggested the following:

- Use recycled materials to replace carbon-intensive Portland Cement in concrete as “supplementary cementitious material.”
- Use recycled materials in pavement applications, such as crushed recycled concrete, recycled asphalt pavement, and rubberized asphalt concrete. Also, in some circumstances, on-site asphalt can be re-used (e.g., cold in-place recycling or full depth reclamation).

**Recommendations:** The EA does not indicate whether these types of materials were considered for the proposed project. EPA recommends FHWA indicate its support of using recycled materials for this project in the Finding of No Significant Impacts (FONSI).

EPA acknowledges the EA indicates construction would take place over the course of two construction seasons (April to October 2017 and April to June 2018). However, because construction will occur in close proximity to residential and commercial properties, EPA recommends the EA discuss the length of the construction day (e.g., whether construction would take place during normal work hours on weekdays only).

### **Water Resources - Stormwater System**

As stated in Section 2.4.2.4, Culverts/Drainage, Stormwater System, of the EA, “Culverts will be designed in accordance with all applicable MDOT standards and the City of Marquette Engineering Department General Guidelines and Standards for Street and Utility Design. Required hydraulic and hydrology studies will be conducted due the design phase of the project to determine proper the culvert size. Culvert lengths and types will be investigated in more detail during the design phase of the project. At this point in time, it appears likely that three-sided, open bottom culverts will be used.”

**Recommendations:** EPA recommends this section be augmented to indicate whether recent precipitation patterns will be examined when designing proper culvert size to ensure that culverts will be able to handle more intense and frequent rain events. EPA recommends FHWA commit to using open bottom culverts.

Additionally, EPA recommends FHWA commit to minimum tree removal, to the greatest extent practicable, along the riparian corridor.

### **Water Resources – Surface Water Mitigation**

As stated in Section 3.11.2.1.3, Mitigation, of the EA, “The Preferred Alternative stormwater system will be designed to meet all applicable MDOT standards and the *City of Marquette Engineering Utility Design*. All stormwater will be accommodated in the median or via the curb and gutter stormwater systems along the roadways. Location of the stormwater systems will be determined during the design phase of the project. The Preferred Alternative would include the use of water quality BMPs to pre-treat stormwater before it enters receiving bodies, and reduce stormwater flow. During the design phase of the project detailed hydraulic studies will be conducted to determine which BMPs will be used to accommodate stormwater. All BMPs will be designed in accordance with the *Marquette Engineering Department General Guidelines and Standards for Street and Utility Design*.”

**Recommendation:** EPA included the following recommendation regarding green infrastructure in our March 2016 scoping letter: Recent studies have indicated that installing “green” stormwater systems is often more cost efficient than traditional “gray” stormwater systems.<sup>1</sup> We strongly encourage on-site green stormwater management via the use of bioswales. EPA continues to recommend FHWA commit to include green infrastructure (e.g., in the median and roundabouts) to reduce runoff, filter pollutants before they reach Whetstone Brook, and increase infiltration rates.

### **Water Resources – Wetlands**

As stated in Section 3.12.3, Mitigation, of the EA, “In order to compensate for the approximately 0.34 acres of impacts to regulated wetlands caused by the Preferred Alternative, approximately 0.66 acres of mitigation wetlands will be created. ... The Presque Isle Bog is located in the Lake Superior watershed. ...”

**Recommendations:** EPA recommends clarifying that mitigation will occur at the publicly-owned Presque Isle Bog as stated on page 67 of the EA.

Additionally, one of the commitments and goals stated in this section includes the following: “When wetland mitigation construction drawings are developed, the City will consider including a 100-foot wide perimeter buffer zone adjacent to the wetland mitigation areas. This buffer will be included if it is practical and not cost-prohibitive.” EPA strongly recommends a FHWA commit to creating a buffer around wetland mitigation areas to increase the possibility of successfully replacing wetland functions and values lost as a result of proposed

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<sup>1</sup> See *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices* at: <http://www.epa.gov/owow/NPS/lid/costs07/documents/factsheet-reducingstormwatercosts.pdf>

impacts and to reduce the possibility that wetland mitigation areas will be overrun by non-native, invasive plant species.

### **Air Quality/Diesel Emissions Reduction**

While EPA recognizes that Marquette County is an attainment area for all criteria pollutants, construction will take place in close proximity to residential properties (e.g., along 7<sup>th</sup> Street); therefore, we strongly recommend commitment to diesel emission reductions, as applicable. The National Institute for Occupational Safety and Health has determined that diesel exhaust is a potential occupational carcinogen, based on a combination of chemical, genotoxicity, and carcinogenicity data. In addition, acute exposures to diesel exhaust have been linked to health problems, such as eye and nose irritation, headaches, nausea, asthma, and other respiratory system issues. Although every project is unique, common actions can reduce worker exposure to diesel exhaust as well as reduce air impacts.

**Recommendations:** EPA strongly recommends FHWA commit to incorporating the following diesel emissions reduction measures, to the greatest extent possible, in the FONSI and applicable contract documents:

- using low-sulfur diesel fuel (less than 0.05% sulfur);
- retrofitting engines with an exhaust filtration device to capture diesel particulate matter before it enters the construction site;
- positioning the exhaust pipe so that diesel fumes are directed away from the operator and nearby workers, thereby reducing the fume concentration to which personnel are exposed;
- using catalytic converters to reduce carbon monoxide, aldehydes, and hydrocarbons in diesel fumes. These devices must be used with low sulfur fuels;
- using enclosed, climate-controlled cabs pressurized and equipped with high efficiency particulate air (HEPA) filters to reduce the operators' exposure to diesel fumes. Pressurization ensures that air moves from inside to outside. HEPA filters ensure that any incoming air is filtered first;
- regularly maintaining diesel engines, which is essential to keeping exhaust emissions low. Follow the manufacturer's recommended maintenance schedule and procedures. Smoke color can signal the need for maintenance. For example, blue/black smoke indicates that an engine requires servicing or tuning;
- reducing exposure through work practices and training, such as turning off engines when vehicles are stopped for more than a few minutes, training diesel-equipment operators to perform routine inspection, and maintaining filtration devices;
- purchasing new vehicles that are equipped with the most advanced emission control systems available; and
- with older vehicles, using electric starting aids such as block heaters to warm the engine reduces diesel emissions.

### **Miscellaneous**

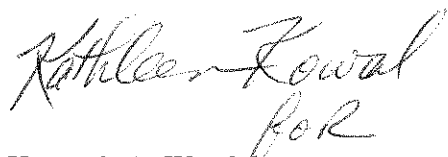
Various sections of the EA indicate applicable best management practices (BMPs) will be determined during the design phase. Nevertheless, including a list of typical BMPs in the EA would have provided the reader with a better understanding of the tools available to reduce impacts from the proposed project.

**Recommendation:** EPA recommends typical BMPs be included in the Project Mitigation Summary (Green Sheet) for this project and any future FHWA projects.

Lastly, the EA indicated the preferred alternative will be designed to accommodate future transit facilities (e.g., bus stops and shelters) should Marq-Tran eventually expand service in the project area. EPA commends FHWA for integrating transit into proposed road improvements.

We appreciate the opportunity to provide input early in the decision-making process. If you have any questions, feel free to contact me or Kathy Kowal of my staff at [kowal.kathleen@epa.gov](mailto:kowal.kathleen@epa.gov) or 312/353-5206.

Sincerely,

Handwritten signature of Kathleen Kowal in cursive script. Below the signature, the word "for" is written in a smaller, simpler script.

Kenneth A. Westlake  
Chief, NEPA Implementation Section  
Office of Enforcement and Compliance Assurance

cc: Dennis M. Stachewicz, Jr., City of Marquette  
Wes Butch, DLZ Michigan, Inc.

