



**ENGINEERING OPERATIONS COMMITTEE  
MEETING MINUTES  
OCTOBER 28, 2021, 9:00 A.M. – 11:00 A.M.  
VIA TEAMS**

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Present: Carol Aldrich      Jason Gutting      Brad Wieferich  
Mark Bott      Tony Kratofil      Gorette Yung  
Gregg Brunner      Ryan Mitchell      Hal Zweng  
Mark Dionise      Kristin Schuster  
Mark Geib      Will Thompson

Absent: Matt Chynoweth      Rebecca Curtis      Brandy Solak

Guests: Tim Croze      Spiro Kotsonis      James Schultz      Robert Tervo  
Ishrat Jahan      Ben Krom      Miranda Spare      Andrea Wilcox  
Joel Kauppila      James Ranger      Dina Tarazi

**OLD BUSINESS**

1. Approval of the September 23, 2021, meeting minutes – Tony Kratofil

*ACTION: Approved*

2. Michigan Department of Transportation (MDOT) new materials and products – Jason Gutting

*ACTION: For information only. Reminder to keep reviews moving forward.*

**NEW BUSINESS**

1. Safety Topic: Fighting Fatigue – Hal Zweng

**<<See Appendix A>>**

*ACTION: For information only*

2. Roundabout construction: US-41/M-28 and Lakeshore Drive (Business M-28) in the City of Ishpeming, Marquette County – Joel Kauppila and Rob Tervo

Major Issue(s) – The roundabout concept was presented as a virtual public presentation in August. The overwhelming majority of the comments from this presentation were positive. One concern was made by the City of Ishpeming’s fire department related to accessing the intersection during an emergency. The Transportation Service Center (TSC), MDOT’s consultant, the city fire department, city manager, city police chief, and several council

members had a meeting on September 8<sup>th</sup> to discuss these concerns. The outcome of this meeting was very positive. All representatives from the city are (and always were) in full support of a roundabout at this location due to the past crash history here and were very happy we took the time to listen to their concerns. They left with an understanding that the constraints involved at this location make it difficult to fully address their concerns but realize they may not be as big an issue as first feared based on projected operations of this intersection. We did mention that MDOT will look at public education for how a motorist should react at a roundabout when an emergency vehicle is approaching from behind.

Background/History – In 2017, this project was selected as the one-time, state-wide project for \$3.5 million of safety funds due to the number of serious injury and fatal crashes occurring at this intersection. In addition, operations funds were approved and transferred into the project in 2020 to supplement the remaining funding needs (in lieu of using repair and replacement template funds as originally planned). The Ishpeming TSC also applied for a Transportation Investment Generating Economic Recovery grant in 2017 and a Better Utilizing Investments to Leverage Development (BUILD) grant in 2019, narrowly missing approval for the BUILD grant. Many letters of support were received from local stakeholders for both of these grant proposals.

Recommendation(s) – Approval of the 2023 construction of a roundabout at the above location at the October 28, 2021, Engineering Operations Committee (EOC) meeting.

Status – Fishbeck was hired earlier this year to design the roundabout and associated structure work. Fishbeck submitted a geometric report including roundabout layout options to MDOT in late August. A meeting between the consultant and MDOT including region, TSC and the geometrics unit will be held on November 10, 2021.

*ACTION: Approved*

3. Alternate pavement bid in Macomb County, Metro Region: I-94 from 8 Mile Road to 11 Mile Road freeway reconstruction – Ben Krom and Spiro Kotsonis

Issue Statement – Alternate Pavement Bid (APB) in Macomb County, Metro Region

Route/Location: I-94 from 8 Mile Road to 11 Mile Road freeway reconstruction

Job Number: 210071

Control Section: 50111

Letting Date: August 2022

Total Est. Const. Cost: \$60.0M Road

Major Issue(s) – Use of APB on I-94 Design-Bid-Build (DBB) project.

Construction Field Services coordinated with the project office and calculated a preliminary life cycle costs analysis on this project and determined that the difference between the pavement options was 1.28%. Concrete was the low-cost alternative.

The Life Cycle Cost Analysis was ran following the new user delay cost ‘capping’ policy, and the Transportation Service Center is in support of the current \$100,000/day user delay cost and does not plan to pursue a reduction.

Both pavement alternates are expected to have similar environmental, right of way, drainage, and utility impacts along with similar maintaining traffic concepts. Paving is the controlling operation for the construction schedule.

Background/History – The project appears to meet the criteria for the use of Alternate Pavement Bidding.

Recommendation(s) – The Innovative Contracting Committee recommends approval of the use of APB on this DBB project.

*ACTION: Approved*

4. Fixed Price/Variable Scope Type 3 contracting method for local agency project: CR 571 from M-72 to Wagonschutz Road; Wagonschutz Road to CR 612/Grass Lake Road – Ryan Mitchell and Dina Tarazi

Issue Statement – Request approval for the use of the Fixed Price/Variable Scope (FPVS) Type 3 contracting method on a local agency project (LAP).

Route/Location: Crush and shape the existing hot mix asphalt (HMA), place three (3) inches of proposed HMA, shoulder material, permanent pavement markings, and permanent signing on CR571 from M-72 to Wagonschutz Rd (Priority A); Wagonschutz Road to CR 612/Grass Lake Road (Priority B).

Job Number: TBD

Control Section: TBD

Letting Date: TBD in accordance with the MDOT LAP Project Planning Guide

Total Est. Const. Cost: \$603,300 (Priority A); \$233,400 (Priority B)

Major Issue(s) – FPVS Type 3 projects receive bids through the traditional low bid process and allow for contract modification to extend limits into Priority B based on the low bid price and the amount of bid savings.

Background/History – The next phase of this project (Priority B) will extend the construction to Grass Lake Road and is proposed to be completed during the 2023 construction season using a traditional low bid process; however, using the FPVS method allows to fully utilize any bid savings that are realized from other jobs which could potentially allow for the entire project limits to be complete in one construction season.

Recommendation(s) – The Innovative Contracting Committee has approved the use of the FPVS contraction method for this LAP project.

*ACTION: Approved*

5. Updated guidelines for Fixed Price-Variable Scope projects – Ryan Mitchell and Dina Tarazi

Issue Statement – Updated Guidelines for FPVS Projects.

Major Issue(s) – Seeking EOC approval on the updated guidelines which has been a coordinated effort between MDOT and Federal Highway Administration (FHWA) Michigan Division staff. Revisions include the following:

- Removal of the existing requirement for completing all advertised work within three (3) years on Capital Preventative Maintenance (CPM) projects.
- Addition of the contract modification process on FPVS Type 1 projects to allow for additional funding to complete the remaining project limits in the original construction season.
- Removal of the EOC requirement on Type 3 projects. Currently, EOC approval is not required for CPM/Safety Type 1 and Type 2 projects. We would like to add Type 3 CPM/Safety projects to the list.

Background/History – Per the current policy, FHWA requires MDOT to complete all work for the entire project limits (all priorities) within three (3) years of the original construction completion on FPVS projects. This has resulted in MDOT limiting the use of FPVS projects to CPM or similar projects because the CPM program is a two-year plan allowing new projects to be added within that timeframe. Furthermore, due to continued deterioration of a pavement after being initially programmed and constructed, the original CPM fix may no longer be suitable within the 3-year time restriction when funding becomes available to complete the remaining limits.

In addition, approval to proceed with establishing guidance for allowing contract modifications on the FPVS Type 1 process would add further value to the contracting method. The increase to the stated fixed price after award (if additional funding becomes available) to complete the remaining project limits in the original construction season would provide an immediate fix for that location, while minimizing repeated disruptions to traffic and risk of duplicate investment.

Recommendation(s) – MDOT Innovative Contracting Unit is now seeking approval of the updated guidelines from the EOC prior to requesting final approval from the FHWA.

*ACTION: Approved*

6. Design-Build-Operate-Maintain delivery to reconstruct MDOT-owned AMTRAK rail and intercity bus stations in Detroit at the site of the current Detroit Amtrak Station in the New Center neighborhood – Ryan Mitchell, Jim Schultz, and Andrea Wilcox

Issue Statement – Approval is requested for Design-Build-Operate-Maintain (DBOM) delivery to reconstruct MDOT-owned AMTRAK rail and intercity bus stations in Detroit into

one modern intermodal passenger hub with enhanced passenger amenities at the site of the current Detroit Amtrak station in New Center neighborhood.

Major Issue(s) – The existing intercity bus station at Howard Street in the Corktown neighborhood, opened in 1992, is obsolete. The existing Amtrak rail station at Woodward Avenue and Baltimore Street in the New Center neighborhood, opened in 1994, is well beyond its service life and is no longer compliant with current Amtrak and Americans with Disabilities Act standards. This project will construct new passenger rail and intercity bus facilities to accommodate growing ridership projections and improve intermodal connectivity, leveraging property that MDOT already controls to offset costs. DBOM delivery will allow MDOT to capture private sector expertise, innovation and efficiency to design, construct, operate and maintain a new regional transportation hub that will expand connectivity, improve customer experience, enhance the public space, and leverage land value.

#### Background/History:

Region/TSC: Metro Region, Detroit Transportation Service Center  
Control Section: 33014  
Job Number(s): 213609

Project Location: The current Amtrak passenger facility parcel is located in New Center at 11 West Baltimore Street, Detroit, 48202; the MDOT-owned parcel south of the rail tracks is bordered by Woodward Avenue, Cass, and Amsterdam. The Detroit bus station is located in Corktown at 1001 Howard Street, Detroit, 48226. The new combined station will be located at the New Center site.

Est. Const Cost: \$55.7M (2021\$); \$57.3M (YOE)

Funding Type and Fiscal Year (federal/state/local): \$15M (pending Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant award)/\$42.3M state/\$0 local. If RAISE grant is not awarded, balance of funds will be state and/or Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant funded.

#### Key Dates:

- RAISE Grant award notice: 11/22/2021
- CRISI grant application due: 11/29/2021
- Preliminary Programming & Design supporting the National Environmental Policy Act process: Winter 2021–Summer 2022
- Procurement: Fall 2022 - Spring 2023
- Letting: Spring 2023
- Implementation (design and construction): Spring/Summer 2023–December 2025

MDOT completed a feasibility study of the proposed intermodal station, including a market sounding with interested local and national developers, to determine if real estate development on the site could be used to offset some of the public investment through a public-private partnership. Based on feedback from market participants and a review of

financial options, it was determined that near-term construction of the transportation facility will require 100% public funding of capital costs. However, based on preliminary site layouts and massing studies, the design and construction will preserve the opportunity for future commercial development at the site which may offset facility a portion of operating costs.

MDOT has no available forces to operate and maintain the bus and train stations and has historically relied upon outside contractors to perform these services.

Recommendation(s) – The project team and Innovative Contracting Committee (ICC) recommend DBOM delivery of the project to incorporate innovation and efficiency in design and construction and ensure consistency and accountability in operations and maintenance.

*ACTION: Approved*

7. Design-Build procurement to install permanent standby generators and associated ancillary infrastructure to improve reliability at select pump stations within the Metro Region – Ryan Mitchell, Ishrat Jahan, Tim Croze, and James Ranger

Issue Statement – Request the use of a one-step Design-Build (DB) procurement to install permanent standby generators and associated ancillary infrastructure to improve reliability at select pump stations within the Metro Region.

Major Issue(s) – To capture private sector innovation, expertise and efficiency, the project team is recommending a Design-Build delivery model to deliver a reliable solution for pump station power redundancy at 14-17 critical sites in Wayne County. A separate contractor will be responsible for operations and maintenance, utilizing an existing Department of Technology, Management and Budget (DTMB) contract.

A one-step procurement will be employed, eliminating the need for a request for quote (RFQ) and shortlisting, reducing the schedule by as much as three (3) months. Existing MDOT prequalifications in the request for proposal (RFP) are adequate to qualify Proposers without the need for additional qualifications or experience. Eliminating the RFQ step will allow the project team to focus on development and issuance of the RFP to meet the schedule.

It is not anticipated that there will be any significant risk associated with environmental, utilities, or right of way. Final plans will likely require submittal to Licensing and Regulatory Affairs for electrical code review. Permits may be required from the City of Detroit.

Background/History – Project Location: 14-17 pumpstation locations in on various routes in Metro Region, Wayne County. See attachments. These stations are chosen based on:

- High frequency of documented power outages at the station
- Located in an area that frequently floods

- Location of pump station makes it difficult or impossible to access with a portable generator

Additional locations may be added as funding allows.

Project Cost: \$10.0M (includes PE and CE – 100% state funded)

Letting Date: April/May 2022

Job Number: 213922

Control Section: Various

Standby generators require scheduled preventative maintenance (PM). A best practice for generator PM is periodically “exercising” them by operating them under load. The responsibility for the generator PM after the contract will be included in the DTMB maintenance contract.

Recommendation(s) – The ICC recommends approval to use a one-step procurement for DB delivery of the project.

*ACTION: Approved*

8. The Environment, Great Lakes, and Energy agency notified some of the region resource specialists that soil erosion and sedimentation control exams must be taken in person for the foreseeable future. This is due to changes they are implementing in their online exam system – Hal Zweng

*ACTION: For information only*

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Carol Aldrich, Secretary  
Engineering Operations Committee

RA:lr

cc: EOC Members	C. Libiran (MDOT)	R. Vandeventer (MITA)
Meeting Guests	L. Mester (MDOT)	D. DeGraaf (MCA)
Region Engineers (MDOT)	C. Newell (MDOT)	C. Mills (APAM)
Assoc. Region Engineers (MDOT)	R. Jorgenson (FHWA)	D. Needham (MAA)
TSC Managers (MDOT)	R. Brenke (ACEC)	M. Ackerson-Ware (MRPA)
L. Doyle (MDOT)	G. Bukoski (MITA)	



## Appendix A – Safety Topic

## ***Fighting Fatigue***

***Sleepiness and fatigue in the work place can lead to poor concentration, absenteeism, accidents, errors, injuries, and even fatalities.***

Towards the end of summer, MDOT workers experience an increase in injuries. There may be many reasons for this increase, but one may be fatigue. There are several things that can cause fatigue and there are some things you can do to help fight its effects.

In a national survey conducted by the National Sleep Foundation:

- 75% of adults report having had at least one symptom of a sleep problem a few nights a week or more.
- 60% of America's adults who drive report that, within the past year, they have driven a car or motor vehicle when feeling drowsy.

The National Highway Transportation and Safety Administration estimates that between 100,000 – 150,000 car crashes each year are caused by drowsy drivers, resulting in at least 1,550 deaths and 40,000 injuries.

Fatigue and sleepiness can be normal responses to physical exertion, emotional stress, boredom, or just a plain lack of sleep.

### **What can you do to help fight fatigue?**

- Maintain a healthy diet and proper hydration
- Manage stress
- Exercise regularly
- Get an appropriate amount of sleep

### **What can I do when driving?**

Watch for these warning signs that you might be too sleepy to drive safely:

- Trouble keeping your eyes focused.
- Continual yawning.
- Inability to recall driving the last few miles.

### **Tips To Avoid Drowsy Driving:**

- Be well rested before hitting the road.
- Avoid driving when you would normally be sleeping (between midnight and early hours).
- Don't drive alone. Carpool. A companion who's awake and can keep you engaged in conversation may help you stay awake.
- Schedule frequent breaks on long road trips. Get out and stretch.
- Avoid alcohol or medications that could make you drowsy.
- Don't count on caffeine. Although drinking a caffeinated beverage might help you for a short time, but it won't overcome excessive sleepiness.

If you still have problems with fatigue and sleepiness, you may want to see your doctor.

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**References:**

- National Sleep Foundation, [www.sleepfoundation.org](http://www.sleepfoundation.org), Summary findings 2005 Sleep in America Poll.
  - J. J. Keller & Associates, Inc, [www.kellersonline.com](http://www.kellersonline.com), Fatigue.
  - U.S. National Library of Medicine and the National Institutes of Health, Medline Plus, <http://medlineplus.gov>, Fatigue.
  - Wellness Councils of America, Welcoa online bulletins, [www.welcoa.org](http://www.welcoa.org), 13 Tips for Conquering Insomnia.
  - U.S. Department of Health and Human Services, National Institutes of Health, National Heart, Lung, and Blood Institute, <http://www.nhlbi.nih.gov/health/public/sleep/healthysleepfs.pdf>, In Brief: Your Guide to Healthy Sleep.
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If you have any questions, comments, or suggestions, please contact the MDOT Safety and Security Administration office at 517-241-1697 or email us at [MDOT-SafetyAdmin@michigan.gov](mailto:MDOT-SafetyAdmin@michigan.gov).

For other safety topics, FAQs, procedures, and training materials, please visit the Inside MDOT Safety and Security Administration team website: Teams>Highways>Safety & Security>Occupational Safety.

**As with any training, please be sure to take attendance and complete an MDOT Attendance Form (MDOT 0037). Submit a copy of the Attendance Form to Safety and Security Administration and retain the original in your training files for future reference.**

2/2007, rev. 6/2014