



**ENGINEERING OPERATIONS COMMITTEE  
MEETING MINUTES  
August 27, 2020, 9:00 A.M. – 11:00 A.M.  
VIA TEAMS**

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Present:	Carol Aldrich	Mark Geib	Will Thompson
	Mark Bott	Jason Gutting	Brad Wieferich
	Gregg Brunner	Tony Kratofil	Hal Zweng
	Matt Chynoweth	Ryan Mitchell	
	Mark Dionise	Kristin Schuster	
Absent:	Rebecca Curtis	Brandy Solak	Gorette Yung
Guests:	Garrett Dawe	James Ranger	Jon Stratz
	Jason Fossitt	Justin Schenkel	Dina Tarazi
	Lynne Kirby	Miranda Spare	
	Aaron Mattson	Dale Spencley	

**OLD BUSINESS**

1. Approval of the June 25, 2020 Meeting Minutes – Tony Kratofil

*ACTION: Approved*

2. Michigan Department of Transportation (MDOT) New Materials and Products – Jason Gutting

a. New Material Monthly Report of Data

- ❖ Number of Submittals Received (*might possibly add an overall year to date or ongoing number*)
- ❖ Number of Submittals Under Review by Subject Matter Expert (documentation and/or product review, dialogue with manufacturer, etc.)
- ❖ Number of Submittals Being Field Reviewed, Tested, or Engaged with a Pilot Effort
- ❖ Number of Submittals in the Special Provision Development Phase (*ready for 661 reporting*)
- ❖ Number of Submittals Approved (approval by steering committee)
- ❖ Number of Submittals Rejected

*ACTION: For information only.*

NEW BUSINESS

## 1. Safety Topic: Toward Zero Deaths – Brad Wieferich

*ACTION: Information Only*

## 2. I-94 Design-Build Project Freeway Lighting in Jackson County – Jason Fossitt

Issue Statement – I-94 Design-Build Project Freeway Lighting in Jackson County. The project limits include the replacement of the I-94/US-127 (West Avenue) and I-94/Elm Road interchanges, Lansing Avenue Bridge over I-94 replacement, and freeway widening and reconstruction.

Major Issue(s) – Freeway lighting is proposed to be installed in the median of I-94 from Airport Road to east of Elm Road and interchanges within the project limits.

Background/History – In January 2020, a safety review was conducted to review the crash history as it related to dark crashes for consideration of freeway lighting along the I-94. The safety analysis is included with this submittal. This segment of I-94 met the Federal Highway Association warrants for freeway lighting due to total ramp traffic entering and exiting the freeway within the interchange area for suburban areas (Freeway Operations and Management Handbook).

Freeway lighting was also presented at the I-94 virtual public meeting on May 7, 2020. There was no opposition to adding freeway lighting to the project at the meeting or during the open comment period.

Recommendation(s) – Due to the upcoming project, now is the best time to install freeway lighting along the I-94 roadway and interchanges at Airport Road, US-127 (West Avenue), M-106, and Elm Road. This will improve the safety for nighttime drivers on this suburban section of I-94 through Jackson.

Status – Freeway lighting is currently included in the I-94 Design-Build Project. The contract is currently advertised and is scheduled to be let October 30, 2020.

*ACTION: Approved.*

## 3. Proposed Pavement Demonstration Project for JN 132102 on US-24 – Justin Schenkel

Issue(s) – To approve the following job for the Pavement Demonstration Program:

- JN 132102, US-24 from Grand River to North of 8 Mile Road in Wayne County (scheduled let date of 03/05/2021)
  - Hot mix asphalt with stabilized subgrade demonstration project

Background – Public Act 457 of 2016, MCL 247.651i allows the Michigan Department of Transportation (MDOT) to construct demonstration projects that are not subject to a Life-Cycle Cost Analysis (LCCA). The LCCA process is a tool to select the lowest cost pavement design over the expected service life of the pavement. The LCCA process must include, by law, historical information for initial construction and maintenance costs, and performance (service life). This information is not available for new pavement design types and new pavement technologies and thus they cannot be used in the pavement selection process until the information has been obtained. Therefore, the pavement demonstration legislation provides a means for trying new and innovative ideas.

Potential outcomes of pavement demonstration projects include increased service life, improved customer benefits and lower maintenance costs. Future LCCAs may utilize cost, performance, and maintenance information from the demonstration projects.

Selection of candidate projects is a collaborative effort among MDOT Construction Field Services (CFS) pavement personnel, MDOT region personnel and pavement industry groups. Once the demonstration project is identified, it goes to MDOT's Engineering Operations Committee for formal approval. Once approved, the project becomes part of the Pavement Demonstration Program. All costs for the demonstration project are funded by the respective MDOT region's rehabilitation and reconstruction budget. Per Public Act 457 of 2016, MCL 247.651i, the Department should balance the costs of asphalt and concrete demonstration projects so that the cost of each type is within 25 percent of each other over a three (3)-year period.

Recommendation(s) – Recommend approval of the proposed Pavement Demonstration Project for JN 132102 on US-24.

*ACTION: Approved*

4. Four to Three Lane Road Diet on 0.4 Miles of M 33/M-72 in Mio – Garrett Dawe

Project Information – Four (4) to three (3)-lane conversion on 0.4 miles of M-33/M-72 in the Mio Area.

Route/Location: M-33/M-72

Job Number: 203965

Control Section: 68012

Letting Date: November 2020

Issue(s) – The Alpena Transportation Service Center (TSC) is planning a capital preventive maintenance (CPM) mill and resurface for spring 2021 construction on M-33 from 14th Street northerly to McKinley Road in the Mio area (Big Creek and Mentor Townships). The project will be let in November 2020.

A portion of the project, from the southerly M-72 junction northerly to just north of 4th Street (0.4 miles) is currently a four (4)-lane cross section with one (1) northbound lane, one (1) center left turn lane, and two (2) southbound lanes. The Alpena TSC is proposing to convert the cross section to a traditional three (3)-lane cross section consisting of one (1)-lane in each direction separated by a center left turn lane. Striping would also provide for six (6) feet shoulders for non-motorized use. This proposal is being presented to the Engineering Operations Committee (EOC) for information only per MDOT policy.

Background – In 2014, this same segment of M-33 was converted from a traditional four (4)-lane cross section (two (2) lanes in each direction) to the unbalanced four (4)-lane cross section described above via striping changes only (no pavement resurfacing). At that time, the TSC held a public informational session and did not receive any resistance. When the striping changes were made, there was minimal feedback received from the public.

For the current proposal, a presentation was given to both township boards on July 16, 2020, describing the proposal and expected benefits. Shortly after the presentation, both townships provided written support for the lane conversion. A virtual public information session for the lane conversion was also held on July 23, 2020 and the TSC did not receive public feedback at that time nor since.

Per the written support for the lane conversion and completed road diet checklist, the proposed lane conversion does not present any significant concerns. Traffic is expected to operate at a level of service greater than C under the three (3)-lane scenario and the striping changes will provide benefits for non-motorized users that currently do not exist. In addition, it is expected that crashes will be reduced as a result of the lane conversion; specifically, those related to driveways and non-motorized users.

Recommendation(s) – Convert M-33/M-72 from an unbalanced four (4)-lane cross section to a three (3)-lane cross section with one (1) through lane in each direction, a center left turn lane, and paved shoulders from the M-72 junction northerly to north of 4th Street via JN 203965. CPM mill and resurface to be constructed in spring 2021.

*ACTION: For information only.*

5. Alternate Pavement Bidding (APB) for I-69 Design-Bid-Build Reconstruction Project in Clinton and Eaton Counties, University Region – Ryan Mitchell/Miranda Spare

Project Information – APB for I-69 Design-Bid-Build reconstruction project in Clinton and Eaton Counties, University Region.

Route/Location: I-69 from I-96 to Airport Road

Job Number: 125869

Control Section: 19043

Letting Date: January 2021

Est. Const. Cost: \$43.8M (Road) / \$13.7 (Bridge)

Issue(s) – Use of APB on the I-69 Design-Bid-Build project.

MDOT CFS 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 4.92%. Concrete was the low-cost alternative.

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 – The project has been selected by MDOT leadership for APB and appears to meet the criteria for APB.

Recommendation(s) – The Innovative Contracting Committee (ICC) recommends approval for the use of Alternate Pavement Bidding on this Design-Bid-Build project.

*ACTION: Approved*

6. Alternate Pavement Bidding (APB) for I-75 Design-Bid-Build Reconstruction Project in Monroe County, University Region – Ryan Mitchell/Lynne Kirby

Project Information - I-75 Design-Bid-Build reconstruction project in Monroe County, University Region.

Route/Location: I-75 from Erie Road to Otter Creek

Job Number: 125868

Control Section: 58151

Letting Date: March 2021

Est. Const. Cost: \$90.0M (Road)/\$19.1 (Bridge)

Issue(s) – Use of APB on the I-75 Design-Bid-Build project.

MDOT CFS 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 0.99%. Concrete was the low-cost alternative.

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 – The project has been selected by MDOT leadership for APB and appears to meet the criteria for APB.

Recommendation(s) – The ICC recommends approval for the use of APB on this Design-Bid-Build project.

*ACTION: Approved*

7. Approval of Fixed Price/Variable Scope Type 3 Contracting Method on a Local Agency Project in Oscoda County – Ryan Mitchell/Dale Spencley

Project Information - Request approval for the use of the Fixed Price/Variable Scope (FPVS) Type 3 contracting method on a Local Agency Project (LAP) for the following work in Oscoda County: Crush and shape existing hot mix asphalt (HMA), place three (3) inches of proposed HMA, shoulder material, guardrail, subbase undercutting, permanent pavement markings, and permanent signing.

Route/Location:

- Priority A: Centerline Road to 0.5 miles east of Galbraith Road
- Priority B: Richardson Road to Centerline Road

Job Number: 130337

Control Section: STUL 68000

Construction Cost: \$523,750 (Priority A) and \$533,750 (Priority B)

Letting Date: March 2021

Issue(s) – Oscoda County has more needs than budget available and is requesting to utilize FPVS. FPVS is proposed to maximize the number of lane miles than can be resurfaced within the established budget. The FPVS method will be used to the extend the point of ending to reflect actual bid unit prices, to the further extent possible.

Background – This is the 1st Innovative Contract for Oscoda County. The county is aware of the unique special provisions required and understands how the FPVS Type 3 delivery method works. The county is also aware of the three (3)-year commitment to complete the remaining segment.

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

How the Region/TSC intends to incorporate work that was not included in the Contractor's bid into the 5-year plan – only applies to rehab/recon projects.

Phases 2 and 3 are proposed to be completed during the 2023 construction season using a traditional bid process, however using the FPVS method allows to fully utilize any bid savings that are realized which could potentially complete the project sooner.

*ACTION: Approved.*

8. Approval of Project Specific Qualifications for Specialized Subcontractor Work on I-94 – Ryan Mitchell/Aaron Mattson

Issue Statement – Request the use of Project Specific Qualifications on a Design-Bid-Build project for the installation of Concrete Filled Stilled Tubes (CFST) on two bridges on I-94 under Conrail in the city of Detroit – X01 between Connor/French and X02 between Concord/Mt. Elliott.

Major Issue(s) – Each bridge will involve the installation of CFST. The CFST will be between 48” to 60” in diameter with 1.5” thick steel pipe piles and will be up to 105’ in length. The CFST will be installed both vertically and battered up to 1H:4V. Minimum CFST spacing is 5’-0”. The CFST will be installed in multiple stages to be coordinated with freeway and railroad closures. The installation shall be in accordance with Section 718.03 of the MDOT standard specifications.

The installation of CFST is highly specialized subcontractor work, and the Bureau of Bridges and Structures would like to shortlist only the most qualified specialty subcontractors. Once the teams have been scored and shortlisted, the final contract documents would require the prime contractor to use only one of these qualified subcontractors to perform this work.

Background/History –

Control Section: X01 of 82025, X02 of 82024

Job Number(s): 200216 (X01), 200217 (X02)

Route: I-94

Work Description: Bridge replacement(s)

Estimated Construction Cost: \$19,726,000 (X01), \$28,070,000 (X02)

Letting: September 2021

Construction: 2022-2023

This project is a replacement of a railroad bridge. MDOT has been in constant communication with the railroad (Conrail) and they are supportive of the CFST.

Recommendation(s) – The ICC recommends approval for use of Project Specific Qualifications for the specialized subcontractor work on these structure replacements.

*ACTION: Approved*

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Carol Aldrich, Secretary  
Engineering Operations Committee

RA:lrb

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