



**ENGINEERING OPERATIONS COMMITTEE  
MEETING MINUTES  
NOVEMBER 2, 2017 – 9:00 A.M.  
MULTI-MODAL CONFERENCE ROOM**

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Present: M. Van Port Fleet R. Ranck K. Schuster M. Sweeney  
M. Bott M. Geib J. Gutting H. Zweng  
B. Wieferich J. Forster (FHWA) D. Morena (FHWA)

Absent: S. Bower K. Avery D. Juntunen

Guests: J. Rick W. D’Souza C. Torres I. Gedaoun B. Maurer

**OLD BUSINESS**

1. Approval of the September 5, 2017 Meeting Minutes

*ACTION: Approved (Email Approval October 2017)*

2. I-75 Design Build (DB)/Alternate Pavement Bid Project (APB), Metro Region – S. Datta, G. Losch

Description: I-75, 13 Mile Road to Coolidge Road

Job Number: 122317

Control Section: 63174

Project Cost: \$351,000,000.

Letting Date: 2018

A DB contracting is proposed to accelerate the delivery of the remaining northern three (3) segments of the I-75 Modernization effort (from north of 13 Mile Road to Coolidge Highway). This approach will accelerate both the completion of construction along the corridor and realize the positive economic benefits of the corridor improvement at least ten years sooner than a traditional Design-Bid-Build approach. This approach will also significantly reduce disruption and negative economic impact to users and communities in the area. Other potential benefits of a DB approach on this project includes increased innovation, economies of scale, better coordination of activities and reduced mobilization costs.

A preliminary Life Cycle Cost Analysis was conducted for this project and concrete was the low-cost alternative by 6.24% over the HMA alternative. Therefore, it is also recommended to utilize an APB contracting approach on the project. This project meets all required APB criteria.

Anticipated contract award will be in the summer of 2018, while construction is anticipated to occur from 2018 through 2020.

- a. The use of the Design-Build method for this contract.
- b. The use Alternate Pavement Bidding (APB) for pavement type selection.

The Innovative Contracting Committee recommends approval to use both a DB and APB contracting approach for the project. EOC approval is requested.

*ACTION: Approved (Email Approval October 2017)*

3. Fixed Price Variable Scope (FPVS) Type 3, US-23 - G. Losch

Description: US-23 Mill & Resurface, University Region

Job Number: 132579

Control Section: 81076

Project Cost: \$1,500,000.

Letting Date: December 2017

The project scope includes up to 6.00 miles of one course cold mill and resurfacing on US23 from the city of Milan to north of Bemis Road. The FPVS contracting method is intended to maximize the amount of work within the established budget if bid prices are less than the engineer's estimate.

The goal of the FPVS project will be to maximize the amount of work that can be completed using a fixed dollar amount. We will be using a Type 3 contracting method, where bids will be received through a traditional low bid process. If the bids come in below the engineer's estimate the construction limits will be extended to meet the project budget. Any work that is not completed with this project will be done under another contract within the next three (3) years.

The Innovative Contracting Committee recommends approval of the use of the FPVS procurement method. EOC approval is requested.

*ACTION: Approved (Email Approval October 2017)*

4. Fixed Price Variable Scope (FPVS) Type 3 I-69 - G. Losch

Description: I-69 Concrete Pavement Restoration, Southwest Region

Job Number: 131592

Control Section: 12033

Project Cost: \$4,083,572.

Letting Date: December 2017

The project scope includes up to 6.00 miles of concrete pavement repairs, diamond grinding, longitudinal grooving, joint resealing, permanent pavement markings and underdrain cleaning on I-69. Project limits extend from the state line north to the city of Coldwater. The FPVS contracting method is intended to maximize the amount of work within the established budget if bid prices are less than the engineer's estimate.

The goal of the FPVS project will be to maximize the amount of work that can be completed using a fixed dollar amount. We will be using a Type 3 contracting method, where bids will be received through a traditional low bid process. If the bids come in below the engineer's estimate the construction limits will be extended to meet the project budget. Any work that is not completed with this project will be done under another contract within the next three (3) years.

The Innovative Contracting Committee recommends approval of the use of the FPVS procurement method. EOC approval is requested.

*ACTION: Approved (Email Approval October 2017)*

### NEW BUSINESS

1. I-94/M-106 Interchange Roundabouts, University Region – J. Rick

Description: I-94/M106 - Roundabouts at Ramp Terminals

Job Number: 115862

Control Section: 38101

Letting Date: June 2018

The M-106 Bridge over I-94 is being replaced. Ramp reconstruction is a required part of the project scope. The interchange study recommended that roundabouts be constructed at the ramp terminals with M-106. This is the preferred option.

EOC approval is requested.

*ACTION: Approved*

2. Manual for Assessing Safety Hardware (MASH) Compliant Permanent Concrete Barriers (PCBs) – C. Torres

Description: Addendum on MASH Compliant PCBs: Manitoba Constrained-Width, Tall Wall Barrier

Job Number: As recommended by EOC

Control Section: As recommended by EOC

Letting Date: As recommended by EOC

To date, the Manitoba Constrained-Width, Tall Wall median barrier is the only cast-in-place, PCB with a Federal Highway Administration (FHWA) eligibility letter (refer to FHWA letter B-269, dated 12/27/16). The Manitoba Constrained-Width, Tall Wall median barrier is a reinforced, single-slope concrete barrier that is considered MASH, Test Level 5 (TL-5) compliant, as identified in FHWA letter B-269. In addition, there is a bridge railing option for the Manitoba Constrained-Width, Tall Wall that is MASH, Test Level 5 (TL-5) compliant, as identified in FHWA letter B-268, dated 12/27/16.

The Midwest Roadside Safety Facility-University of Nebraska (MwRSF) conducted the Manitoba Constrained-Width, Tall Wall crash testing and, as part of this effort, published a detailed report related to this barrier. MwRSF's report contains recommendations (e.g., barrier transition options, barrier footing options, split barrier options, roadside barrier options, etc.) for addressing some of the issues typically encountered in PCB design and construction.

As a supplement to the PCB information presented to EOC on March 9, 2017, if MDOT would rather adopt a cast-in-place PCB design with an FHWA eligibility letter, then the Manitoba Constrained-Width, Tall Wall median barrier would be the Department's only option at this time.

EOC guidance is requested.

*ACTION: EOC approves the Manitoba Constrained-Width, Tall Wall. Until directed otherwise by EOC, the Manitoba Constrained-Width, Tall Wall will be approved for use on future projects requiring new PCB installations, beginning with the January 2018 letting. EOC also directs the Standards Unit to review and revise all current MDOT Standard Plans / Special Details and guidance related to PCB design.*

3. M-66 Road Diet, Southwest Region - D. Valsadia/B. Maurer

Description: M-66. Capital Ave. to Frey Dr., City of Battle Creek, Southwest Region  
Job Number: 129143  
Control Section: 13032  
Letting Date: March 2018

The crash pattern can be mitigated by conversion to a three-lane cross section with a center left turn lane. Additionally, the City of Battle Creek has expressed their desire to connect the existing bike lanes at the north end of the project to the Linear Park Trail near the south end of the project. The three-lane cross section will also allow for on roadway bike lanes. The project meets the requirements of the Road Diet Checklist.

*ACTION: Informational item. No action required.*

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Steven Bower, Secretary  
Engineering Operations Committee

RA:SB

cc: EOC Members	M. DeLong	D. DeGraaf (MCA)
Meeting Guests	D. Jones	J. Becsey (APAM)
K. Steudle	C. Libiran	D. Needham (MAA)
L. Mester	R. Jorgenson (FHWA)	Monica Ackerson Ware (MRPA)
D. Wresinski	R. Brenke (ACEC Michigan)	
Region Engineers	G. Bukoski (MITA)	
Assoc. Region Engineers		
TSC Managers		