



**ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
MARCH 5, 2015 – 9:00 A.M.
MULTI-MODAL CONFERENCE ROOM**

Present: G. Johnson R. Van Portfliet M. Van Port Fleet
M. Bott M. Geib B. Wieferich
K. Schuster S. Bower T. Marshall (FHWA)
M. Chynoweth

Absent: P. Ajegba B. O'Brien

Guests: C. Bleech M. Grazioli J. Hofweber
M. Eacker J. Schenkel C. Potvin
J. Bodell E. Tamlyn S. Pethers
J. Gailitis J. Garcia K. Brown
M. Dubay

OLD BUSINESS

1. Approval of the January 5th, Meeting Minutes – G. Johnson

ACTION: Approved

2. Michigan Bridge Emergency Repair Guidance – M. Chynoweth

MDOT's emergency contracting procedure can be implemented when a situation presents imminent danger to immediate health, safety or welfare of individuals or property, or there will be an interruption in commerce if immediate action is not taken. We have a well-defined process of contacting a minimum of three contractors prequalified in the appropriate work classifications to bid and perform the work. Over the past two years, MDOT inspections have revealed structure conditions on bridges requiring immediate temporary supports or other repairs to prevent an unsafe condition. The MDOT Statewide Bridge Repair Crew is the primary responder to these emergencies. Due to an increase in the number of bridge related emergencies or urgent repairs needed, there is a need to supplement the Statewide Bridge Repair Crew with additional resources in the form of contracting.

A Request for Action (RFA) form is submitted by region bridge inspection staff when bridge inspection identify conditions they feel require immediate or urgent action. The MDOT Bridge Request for Action (RFA) Coordination Committee (a sub group of the MDOT Bridge Committee) who reviews the RFA's has identified different priority level conditions (?) which prioritizes work responses to the RFA's. Priority 1 conditions warrant repairs immediately, and thus fall within the traditional definition of an emergency situation.

Bridge Field Services has established a budget amount of \$500,000 to assist the Regions in addressing Priority 1 repairs to be done under the emergency contracting process. The process is outlined in the attached procedural document, which will be distributed to Region Bridge staff once this process is approved by EOC. The Bureau of Finance has approved this process.

MDOT actively manages our poor bridges. With additional bridges falling from fair to poor every year, our capital program supplemented by our Statewide Bridge Crew is not sufficient to complete the repairs needed on the structures. The addition of this contracting mechanism will provide the additional resources needed to maintain our bridge serviceability.

ACTION: Approved

NEW BUSINESS

1. Roundabout at I-75 – Bristol Road – E. Tamlyn

Route/Location: I-75 at Bristol Road
Job Number: 115831 (CMAQ), 116193 (T&S)
Control Section: 25031
Letting Date: 12/4/2015

The existing interchange configuration was identified as having safety and operational issues. A time-of-return analysis was performed at this location and the project has gone through the traffic and safety call for projects process. Other options have been evaluated, including a boulevard option, but were not seen as cost effective. Less expensive options, such as signal back-plates and low-level traffic signals, have been implemented without having a significant impact on safety and operations.

Upon analyzing the interchange, a roundabout will have a positive impact on the number of crashes occurring at this location while simplifying the existing system of signals and loop ramps.

ACTION: Approved

2. M-57 in Village of Chesaning (Saginaw County) – R. McDonnell

Route/Location: M-57 in Village of Chesaning (Saginaw County)
Job Number: 124003
Control Section: 73021
Letting Date: 12-04-15

The local community have requested 4to3 lane conversion for a portion of this project beginning at Chapman St west to 4th St. We are seeking EOC approval before we move ahead and hold a public open house for this project. The boulevard area poses some unique challenges as this is not a conventional 4 to 3 lane type conversion area. We are proposing to place a fog line out from the median curb to artificially narrow the two lanes in order to keep people from treating the non-motorized shoulder as a driving lane.

We currently are proposing a large project in the Village of Chesaning for FY 2016. This will involve replacing M-57 over Shiawassee River, replacing M-57 over Deer Creek (Culvert), articulating concrete block floor at M-57 over Bear Creek and a CPM one course mill/resurface along M-57 from Stuart St. west to 4th St. Village representatives approached MDOT and asked for us to incorporate non-motorized facilities somehow into our road project. Outside of the direct downtown area M-57 is a two lane roadway. East of the river and to the east village limits there are wide shoulders with narrow sidewalks. It was

determined that 4 to 3 lane conversion would be the most efficient way of accomplishing this request.

ACTION: For Information Only

3. US-31 East of Camp Daggett Rd. to US-131 – JN: 110605, 113598 & 121492 – J. Bodell

Location: US-31 from roughly 1,400 feet east of Camp Daggett Rd to US-131, City of Petoskey and Resort Township, Emmet County.

Job Number: 110605, 113598, & 121492

Control Section: 24011

Letting Date: February 6, 2015

Acquiring ROW at the US-31 / US-131 intersection has been a challenge which may affect the timeline of the traffic signal upgrade (JN 121492). This will have little bearing on the proposed lane improvements.

This section of US-31 has had an existing crash pattern over the past several years, much of which could be mitigated by the addition of a CLTL. The City of Petoskey has adopted an Access Management Plan which includes things like re-aligning / removing driveways and side streets, 4 to 3 lane conversion, and median islands for traffic calming effect. In addition, the City of Petoskey Planning Commission has passed a resolution in support of the proposed lane conversion. Based on feedback from public meetings the majority of locals seem to be in favor of the project.

The lane conversion was recommended in order to mitigate crashes and improve safety. As a result the recommended lane configuration will include 1 lane in each direction with a CLTL. As a result of the Synchro Analysis, EB US-31 will open back up to 2 lanes at Greenwood Rd in order to maintain the same LOS at the signalized intersection of US-31 / US-131.

ACTION: For Information Only

4. M-55 West of US-127 to Old US-27 – J. Bodell

Location: M-55 from roughly 950 feet west of US-127 to Old US-27, Lake and Roscommon Township, Roscommon County.

Job Number: 120353

Control Section: 72031 / 72021

Letting Date: January 8, 2016

There were concerns regarding the lane conversion voiced at the public meeting. A detailed list of all public questions and comments was compiled. Further evaluation was conducted for each of the individual comments through a Road Safety Audit that included an impartial cross-section of internal and external transportation officials and resources.

This section of M-55 has had an existing crash pattern over the past several years from US-127 all the way to M-18 (roughly 9 miles), much of which could be mitigated by the addition of a CLTL / lane conversion. This severity of crashes throughout this corridor is significantly higher than that of other similar roadways in our area. In addition, at least some section of M-55 and at least one intersection

along M-55 end up on the High Crash List every cycle. A Synchro Analysis and existing and future traffic volumes along this corridor do not suggest that a lane conversion will result in any issues. An RSA was conducted and was in agreement with the TSC's recommendations.

The lane conversion was recommended in order to mitigate crashes and improve safety. As a result the recommended lane configuration will include 1 lane in each direction with a CLTL. EB M-55 will open back up to 2 lanes at the signalized intersection of Old US-27. In addition, opportunities for re-aligning driveways and other access management strategies will also be addressed as part of this project. The conclusions of the RSA Team supported the proposed lane improvements to reduce crashes and improve safety.

ACTION: For Information Only

5. M-32 I-75 BL to Hazel Ave. and I-75 BL – J. Bodell

Location: M-32 from the I-75 BL (Otsego Ave) to Hazel Ave and I-75 BL from Grandview Blvd / Wisconsin Ave to M-32, City of Gaylord, Otsego County.

Job Number: 123225 (MDOT's Mill & Fill JN)

Control Section: 69023 & 69011

Letting Date: February 6, 2016

Although the locals have been successful in fund-raising opportunities and acquiring grants, in addition to MDOT's contribution through a CPM project, the City still has some remaining gaps in the required funding. Necessary funding obligations for the City must be met prior to 2016.

In 2011 the City of Gaylord approached the Gaylord TSC regarding a 5 to 3 lane conversion on M-32 from Michigan Ave to Hazel Ave. Based on further analysis and review it was decided that the proposed lane conversion would allow for sufficient traffic operations and improved safety between the I-75 BL and Hazel Ave. However, analysis showed that 5 lanes would be required west of the signalized intersection of the I-75 BL / M-32 as a result of the heavy left turn movement onto WB M-32. In addition, the City of Gaylord approached the Gaylord TSC regarding a 4 to 3 lane conversion on the I-75 BL as well. Based on further analysis and review it was determined that the transition point of the lane conversion be moved south to the Grandview Blvd / Wisconsin Ave intersection to create a more logical and safe transition point.

The TSC recommended a scaling back of the locally proposed road diet on M-32 to ensure that operations would not be compromised. Also, the TSC recommended the transition point of 4 to 3 lanes on the I-75 BL (Otsego Avenue) be moved south to the Grandview Blvd / Wisconsin Ave intersection, as this is a more logical and safe transition point.

ACTION: For Information Only

6. Approval of the Interim User Guide for Mechanistic-Empirical Pavement Design – M. Eacker

The Mechanistic-Empirical (ME) pavement design method is the latest in pavement design methodologies. It is AASHTO's recommended method for designing a pavement cross-section. Michigan currently uses the AASHTO's 1993 "Guide For Design of Pavement Structures". The ME design method is significantly more complex than the AASHTO 1993 method. Because of this, it

was felt that a manual was needed that would provide guidance on how to utilize ME for pavement designs for Michigan DOT projects.

The Pavement Management Section has been working on implementation of the ME design method for several years now. Part of this effort was assembling pavement expertise from around the Department, as well as from the paving industry groups, to form a Committee to oversee the implementation of the ME design method. The ME Oversight Committee was formed in mid-2013 and has been meeting on a regular basis to oversee the tasks necessary to implement ME. The culmination of the Committee's effort is the manual being presented for approval. The manual provides guidance on:

- ME software operation
- The process to produce a pavement design
- Inputs for traffic, materials, climate, and design parameters
- Assessing the design results, altering the design when necessary, and determining when a design is final

The ME Oversight Committee, assisted by Subcommittees for HMA, Concrete, and Traffic, approved the User Guide and recommends that it be utilized for Phase 1 of the ME transition plan. Phase 1 involves ME design of life-cycled new/reconstruct designs. The other phases of the transition plan are as follows:

- Phase 2 – Region-based new/reconstruct designs (non life-cycle)
- Phase 3 – Life-cycle rehabilitation designs
- Phase 4 – Region-based rehabilitation designs (non life-cycle)
- Phase 5 – Final recommendation

All of the Regions were represented on the ME Oversight Committee by the person responsible for doing pavement cross-sectional design. Each of these Region representatives helped to create and review the submitted ME User Guide.

In addition to the ME User Guide, approval is sought for the following:

- Begin phase 1 of the ME transition plan (use ME for alternative pavement bid and life-cycled projects with new and reconstructed pavements)
- Any changes to the HMA binder selection during the ME design process (from Section 14.4.2 of the ME User Guide) must be brought to EOC for approval before they are incorporated in to the project. This would apply to the projects life-cycle during ME transition phase 1 only.

ACTION: Approved

7. Trunkline Non-Competitive Bid Contracts (Force Account) – B. Wieferrich

In October 2013, the EOC approved GD 10226 for the “Construction of Federally Funded Trunkline Projects by Non-Competitively Bid Contract”, which defines the thresholds and procedures for procuring force account projects.

The GD requires that an annual list of such projects be posted on MDOT’s public website, under the “Contractor Services” section. Through consultation with the Office of Communications, it’s been determined that the “Reports” section would be a better location.

The GD also requires MDOT to limit statewide non-competitive bid force account authorizations to \$5,000,000 or less, within a fiscal year. For FY14, the total amount was approximately \$3,002,027. Included in the FY14 \$3 million, there were three Metro Emergency Storm Cleanup projects that totaled \$1.216 million. These jobs well exceeded the standard limit of \$100k, but did follow our required Emergency Contracting procedures. There was one other Metro project that exceeded the \$100k limit (I-75 Corridor Signals), but it did follow the approval procedure for a 90 Legislative Review.

Annual targets must also be approved by the Engineering Operations Committee (EOC) for Safety Programs, Traffic Signals, and each Region. These targets will not be considered as hard limits, but rather as guidance to ensure the statewide threshold can be met. Any work area that proposes to exceed their target must receive prior EOC approval to do so. Recommended targets for FY15 are:

Safety Programs:	\$ 700,000 (\$100,000 per Region for Safety Work Authorizations)
Traffic Signals:	\$ 900,000 (statewide use)
Metro Region:	\$1,000,000
<u>Other Regions:</u>	<u>\$ 400,000 each</u>
Total:	\$5,000,000

ACTION: Approved

8. Initial Publication of Guidelines for the Procurement of Construction Manager/General Contractor (CMGC) Contracts – C. Young

A guide for CMGC projects has been developed. The guide is intended to be added to the existing Innovative Construction Contracting guide

In 2014, a draft guide was provided to MITA, ACEC, MDOT and FHWA staff for review and comment. Comments have been received, reviewed and added into the guide where appropriate.

The CMGC guide will continue to be updated as MDOT refines its current processes. Significant changes to the guide will be discussed at future EOC meetings before being incorporated.

ACTION: Approved

9. Presidential Executive 11988 (Floodplain Management) – C. Potvin

On January 30, 2015, President Obama released Executive Order (EO) 13690 which seeks to amend (EO) 11988 (Floodplain Management) by creating a new flood risk reduction standard for federally funded projects in order to improve the nation’s resilience to current and future flood risk. It is unknown how this EO will affect MDOT operations, planning, project development, environmental reviews, design, program administration, and other areas.

The changes to the EO 11988 create the following issues:

- A Federal Flood Risk Management Standard (FFRMS) which raises and expands the base flood limits to address current and future risks associated with climate change. This extends the floodplain beyond what is addressed in current transportation standards and processes. Any project that receives federal funding or assistance must meet the new standards.
- Base flood had been defined as having a 1% chance of being exceeded in any given year. The proposed EO creates a minimum of 3 ways to denote the floodplain including:
 - Using climate informed science approach that uses the best available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science.
 - By adding 2 feet to the base flood elevations. 3 feet would be added for critical actions. Federal departments determine what a critical action is.
 - The area subject to flooding by the 0.2% annual chance flood, commonly referred to as the 500 year flood.
- Each Federal department and agency are to incorporate FFRMS into their processes. They have 30 days after the comment period ends to submit an implementation plan to the National Security Council.
- More than 50% of Americans live in coastal counties.
- Public comment period began February 5, 2015 and runs for 60 days.
- Incorporation of the FFRMS standards by FHWA may require rulemaking to revise 23 CFR 650 (Bridges, Structures, and Hydraulics) and other areas of the CFR dealing with wetlands, floodplains, and NEPA documentation.
- “Listening Sessions” will be developed through FEMA. There are no details as to what these will consist of.
- FHWA is not taking comments on the EO, FFRMS, or the guidelines since this is a Federal government wide initiative.
- Will affect highway construction, reconstruction, rehabilitation, repair, or improvement undertaken with Federal funds that are in a regulated floodplain.

ACTION: For Information Only

Steven Bower, Secretary
Engineering Operations Committee

RA:SB:lsf

cc:	K. Steudle	D. Jackson	R. Jorgenson (FHWA)
	L. Mester	W. Tansil	R. Brenke (ACEC)
	EOC Members	D. Wresinski	G. Bukoski (MITA)
	Region Engineers	C. Libiran	D. DeGraaf (MCA)
	TSC Managers	R. Lippert	D. Hollingsworth (MCA)
	Assoc. Region Engineers	B. Shreck	J. Becsey (APAM)
	D. Parker	T. Phillips	M. Newman (MAA)
	M. DeLong		J. Murner (MRPA)