OLD BUSINESS
1. Approval of the July 11, Meeting Minutes – G. Johnson

*ACTION:* The July 11, 2013 meeting minutes were approved with minor changes to Old Business Item 2. Short Term goals were targeted for 1 year, Intermediate target is 1 – 3 years and Long Term target is 3+ years.

2. JN 113513 – Roundabout at US-10 WB on/off ramp and M-30 in Midland County – J. Garza

Control Section: 56032
Job Number: 113513
Letting Date: 11/7/2014
Location: M-30 at the US-10 WB on/off ramps – Midland County

This project involves constructing a modern roundabout on the north side of US-10 at the WB on/off ramps within a partial cloverleaf interchange. At the meeting on March 11, 2013, there was concern that investigation was needed to determine that, operationally, this proposed roundabout would still function once a second roundabout was possibly added in the future to the south side of US-10 at the other ramp terminal. The entire interchange operation was evaluated assuming the addition of a future roundabout on the south side of US-10. Geometrics has since looked at this and determined that this will function.

Due to the number and severity of crashes at this intersection, two alternatives for safety were evaluated. These two alternatives were a center left turn lane and a modern roundabout. With the types of crashes that are occurring, a center left turn lane would not solve all of the types of crashes. Also, there would be possible Right-of-Way impacts and fill slope issues on the west side of M-30 with this option.

A modern roundabout would alleviate the angles of crashes and solve the rear end and head on crashes at this intersection.
Meridian Public Schools is located approximately 1.5 miles north of the project area which generates a large amount of traffic during certain times of the day. During these peaks it can be very difficult to turn left on to southbound M-30 from the westbound US-10 off ramp and to turn left from southbound M-30 to head to the westbound US-10 on ramp. With the few opportunities to make these turns, motorists take risks at small gaps and cause collisions. Other traffic generators in the area are the Shell gas station and McDonalds.

Stakeholder engagement will be necessary in regards to educating the general public as well as area businesses, Meridian Schools (young drivers), and Midland County Road Commission (MCRC). MCRC offices and maintenance facility are located approximately ½ mile south of the project location.

Once the project is approved, a public open house will be held to discuss the plans for the project, budget, and answer any questions that people may have.

This item is being added to the agenda as a follow-up to the conditional approval received at the EOC meeting on March 11, 2013. EOC directed in March that the Region evaluate, in the design phase only, the entire interchange operation assuming the future addition of a roundabout on the south side of the interchange as well. The evaluation confirmed that a future dual roundabout interchange will operate satisfactorily.

ACTION: Approved

3. 2016 State Trunkline Fatality and Serious Injury Goal – M. Bott

The 2013 SHSP has revised the state’s goals are to reduce traffic fatalities and serious injuries on all roadways from 889 and 5,706 respectively in 2011 to 750 and 4,800 in 2016. While this is the goal for 2016 on the state trunkline, MDOT’s vision is Toward Zero Deaths (TZD). The department’s ultimate goal is to reduce fatalities to zero and minimize serious injuries. The 2016 goal is an interim goal of that vision. Based on a statistical analysis of trunkline crashes MDOT’s portion of the 2016 statewide goal would be:

On the state trunkline system, reduce fatalities 4.5 percent per year from 419 in 2011 to no more than 333 in 2016 and reduce serious injuries 5.8 percent per year from 2,286 in 2011 to no more than 1,700 in 2016.

For external communications the message would be:

“In support of the Michigan Strategic Highway Safety Plan, MDOT expects over the next five years at least 86 more people to live and an additional 586 people to be saved from serious injuries by implementing safety improvements on the state trunkline."

For the 2008 SHSP a trunkline goal was established based on leadership consensus. On the state trunkline system the department’s goal was to reduce fatalities and serious injuries from 453 and 3,009 in 2007 to no more than 250 and 1,700 in 2012. This equated to an approximate 11 percent reduction per year while the statewide goal was a reduction of 4.7 percent per year. In 2012, there were 384 fatalities and 2,295 serious injuries reported on the state trunkline system therefore the goals were not met.
The 2008 SHSP goals were to reduce traffic fatalities and serious injuries on all roadways from 1,084 and 7,485 respectively in 2007 to 850 and 5,900 in 2012. In 2012, there were 936 fatalities and 5,676 serious injuries reported statewide. While the fatality goal was not met in 2012, overall when the goals for both fatalities and serious injuries are combined the actual values of 6,612 K’s and A’s is below the total goal of 6,750.

At the July 11, 2013 meeting, EOC directed Mark Bott to review the 2016 goal statement with the Office of Communications. He was also asked to review the MDOT Scorecard and the Governor’s Dashboard to ensure consistency with the proposed 2016 safety goal.

In discussion with Jeff Cranson, the Office of Communications supports the safety message but needs to know how MDOT arrived at those figures and what sort of specific things MDOT will do to help meet the goal. The response to the Office of Communications was:

Proposed goals were derived from statistical models which reviewed the past performance of the trunkline infrastructure. Models accounted for both internal and external influence in response to prior safety enhancements. The department plans to continue our traffic and safety efforts of addressing identified locations in coordination with expanding our systemic approach to safety by addressing system wide safety needs. Examples of these systemic improvements are cable barrier, non-freeway rumble strips, wrong way movement treatments at freeway interchanges, and the safety edge.

Vanessa Blaxton is aware of the 2016 statewide goal and proposed revision to the 2012 trunkline goal. Neither the statewide goal nor trunkline goal is mentioned on the Governor’s Dashboard. The trunkline goal is not mentioned in the MDOT Scorecard.

ACTION: Approved

4. Guidelines for Updating Signal Inventory Information – P. Corlett/M. Chaput

The Signal equipment inventory is housed in the Traffic & Safety software program, SAFESTAT. Equipment changes made in the street are not always updated in the SAFESTAT inventory. This document will define what information concerning equipment changes need to be updated in SAFESTAT and who has the responsibility of making those updates.

Signal inventory is used in developing future modernization contracts, in monitoring maintenance activities and in energy billing for each electronic traffic control device under MDOT’s jurisdiction. Currently changes can be made in the street and not identified properly in the MDOT statewide inventory database (SAFESTAT). This can lead to loss of power consumption savings (as when LED technology is implemented), inaccuracies in tracking maintenance activities and difficulty prioritizing modernization of equipment based on age.

During the Signal Energy Billing re-engineering, SAFESTAT was identified as having a key part by providing a statewide inventory of traffic signal equipment along with the age of that equipment. Also, it was noted the SAFESTAT database did not always correctly reflect conditions on the street. Changes to equipment made as part of the normal modernization process has been handled by Traffic Signals unit, was routinely updated in the SAFESTAT database and provided the most accurate information available to the unit. However, changes to equipment are often made in the Region in response to damage by vehicular crashes, electrical storms or Region initiated LED re-lamping of signal heads. These Regional changes were not always reported to those responsible for maintaining the signal equipment inventory in SAFESTAT. The inaccuracy causes loss of cost savings (as with
LED re-lamping), difficulty in monitoring maintenance activities and incorrectly prioritizing future signal modernization projects where age is the method of determining which device will be modernized. This document provides both Regional and Lansing personnel guidance on what information should be updated in SAFESTAT but also who has the responsibility for putting the information in SAFESTAT so the inventory will be accurate and usable by all interested parties.

EOC directed in July that the proposed guidelines be reviewed by the Operations Administration Division and the seven regions prior to EOC action. The review comments are incorporated into the proposed guidelines submitted today.

*ACTION:* Approved

5. NPDES Permit – H. Zweng

MDOT will apply for a new NPDES permit in FY 2014, to be issued in FY 2015. The new NPDES permit will have requirements regarding Post Construction Best Management Practices (PC-BMPs) that are more restrictive than previous permits. MDOT design practices will need to adapt to these changes.

The National Pollutant Discharge Elimination System is a Federal program administered by the EPA, and delegated in Michigan to the MDEQ. Part of this program is the issuance of Municipal Separate Storm Sewer System (MS4) permits, MDOT being a permittee under this program.

Resources should be dedicated to this effort to ensure compliance beginning in FY 2015.

*ACTION:* EOC directed Hal and Kristen to review the federal regulatory language relating to this issue and confirm that the MDEQ interpretation is consistent with the federal regulation. EOC also asked that Kristen and Hal review AASHTO’s position on this issue and provide an update to EOC at the next meeting.

**NEW BUSINESS**

1. M-1 Reconstruction: CS 82131 JN 76903 - Pavement Selection – B. Krom

Department Policy requires that a Life Cycle Cost Analysis (LCCA) be used to determine the most cost effective pavement design.

This is the first LCCA that included utility relocation costs in the analysis. The paving industries reviewed the LCCA, and after their two-week review period did not object to the analysis.

Pavement selection was determined using the procedures outlined in the MDOT Pavement Design and Selection Manual. Department Policy requires that the pavement alternate with the lowest EUAC be selected. Final pavement selection requires approval by the Engineering Operations Committee.

The reconstruction alternatives being considered are a Hot Mix Asphalt Pavement (HMA Alt #1) and a Jointed Plain Concrete Pavement (JPCP Alt #2). The pavement designs being considered are as follows:

**Alternative #1:** Reconstruct with Hot Mix Asphalt Pavement  
1.5” HMA, 5E3, Top Course
2” HMA, 4E3, Leveling Course  
3” HMA, 3E3, Base Course  
16” Open Graded Drainage Course  
Geotextile Separator  
8” Sand Subbase  
6” dia. Open-Graded Underdrain System  
30.5” Total Section Thickness  

Present Value Utility Relocation Cost $187,902/lane-mile  
Present Value Initial User Cost $38,561/lane-mile  
Present Value Maintenance Cost $120,058/lane-mile  
Equivalent Uniform Annual Cost (EUAC) $21,003/lane-mile  

Alternative #2: Reconstruct with Jointed Plain Concrete Pavement  
8” Non-Reinforced Concrete Pavement, P1 Modified, with 12’ joint spacing  
16” Open Graded Drainage Course (mainline)  
Geotextile Separator  
6” dia. Open-Graded Underdrain System  
24” Total Thickness  

Present Value Initial Construction Cost $244,468/lane-mile  
Present Value Initial User Cost $78,778/lane-mile  
Present Value Maintenance Cost $120,283/lane-mile  
Equivalent Uniform Annual Cost (EUAC) $15,707/lane-mile  

The pavement designs for both alternatives are based on the 1993 AASHTO “Guide for Design of Pavement Structures” and use the AASHTO pavement software DARWin Version 3.1, 2004. The Equivalent Uniform Annual Cost calculation is based on the revised pavement selection process as approved by the EOC on June 3, 1999.

The estimated construction costs are based on historical averages from similar projects. User costs are calculated using MDOT’s Construction Congestion Cost model, which was developed by the University of Michigan.

Conclusion:

Pavement selection was determined using the procedures outlined in the MDOT Pavement Design and Selection Manual. Department policy requires that the pavement alternative with the lowest EUAC, Alternative #2: Jointed Plain Concrete Pavement, be selected. Final pavement selection requires approval by the Engineering Operations Committee.

ACTION: Approved

2. The use of a Design-Build-Finance-Operate-Maintain / Public Private Partnership procurement method for a 100 Year Service Life Bridge Bundling Project – M. Chynoweth

Control Section: TBD  
Job Number: TBD  
Construction Cost: TBD  
Letting Date: TBD  
Desired Award Date: January, 2014
The project scope is to utilize the P3 project delivery model to provide 100 year service life bridge replacement and rehabilitation project for poor bridges, or bridges already identified in corridor projects for replacement that would otherwise not be replaced due to existing funding constraints as part of the current program. Use of innovative materials such as Carbon Fiber Reinforced Polymer (CFRP), and Accelerated Bridge Construction techniques are also proposed as part of this effort.

*ACTION:* EOC approved the use of this contracting method.

3. Trunkline Non-Competitive Bid Guidance – B. Wieferich

The department will define the process and thresholds for utilizing federal aid for non-competitive bid, or force account, projects.

In 2012, MDOT published the “CONSTRUCTION OF FEDERALLY FUNDED (FEDERAL AID) LOCAL AGENCY PROJECTS BY NON-COMPETITIVE BID CONTRACT (FORCE ACCOUNT)” guidelines, which were subsequently approved by the FWHA in July of 2013. This guidance specifies the process and defines the limits for local projects.

*ACTION:* Extensive discussion ensued regarding the proposed guidelines. Brad was directed to further develop the guidelines with several revisions. The document will be rewritten in a Guidance Document format. Brad will make the necessary changes and place on the agenda for a future meeting.
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) |