OLD BUSINESS

1. Approval of the October 3rd, Meeting Minutes – G. Johnson

   ACTION: The October 3, 2013 meeting minutes were approved as written.

2. Emergency request for equipment usage email approval (Alcona County) – S. Thayer

   The Alcona County Road Commission experienced a devastating equipment loss due to a fire in their main garage. This request is to allow short-term use of MDOT equipment to protect the health and welfare of motorists on the trunkline and local systems.

   On September 28, 2013 a fire destroyed the main garage of the Alcona County Road Commission (ACRC). The ACRC has a trunkline maintenance contract with MDOT and is responsible for the maintenance of all trunkline routes within Alcona County. Of the five winter maintenance trucks (WMT) typically utilized to perform maintenance on the trunkline, three were totally destroyed by the fire and the other two sustained damage. As soon as they became aware of the fire and its impact to the ACRC, both MDOT and other road agencies in Northern Michigan contacted the ACRC to determine how to best assist the ACRC and ensure it would be able to provide appropriate levels of maintenance service for the citizens of Alcona County.

   Specific Issues
   Staff from the Alpena TSC and the North Region office met with the ACRC to discuss potential equipment needs for the upcoming winter season. The ACRC indicated that it needed two additional WMTs for a portion or all of the winter until such time as the ACRC’s trucks could be replaced or repaired. In similar situations in the past, MDOT has allowed Road Commissions to utilize MDOT owned equipment, but has required that the equipment be used on trunkline routes only. The ACRC indicated however that due to its small size, and the layout of its snowplow routes, it would be neither efficient nor practical for it to dedicate trucks to the state trunkline and therefore it would not be able to utilize MDOT equipment.

   To ensure that our trunklines are maintained in the most efficient manner possible, the North Region believes it is essential to provide the ACRC with as many equipment options as possible in this emergency situation. The department currently has four WMTs that were turned in by the Regions for
sale at auction. The Office of Operations Administrative Services (OAS) has delayed the auction of these WMTs at the request of the Region Engineers to have them available in the case of emergency situations.

Other local Road Commissions have offered to allow the ACRC to utilize their extra or contingency WMTs for this upcoming season. It is anticipated however that the trucks turned in by the MDOT Regions will likely be in better condition and more efficient than vehicles available from other road commissions.

Given these considerations, the North Region requests that it be granted the authority to negotiate an emergency equipment usage agreement with the ACRC that allows the ACRC to utilize MDOT owned equipment on both trunkline and non-trunkline roadways. The ACRC will agree to pay MDOT an agreed upon rental rate whenever the MDOT owned equipment is utilized off of the trunkline. Providing the North Region the authority to develop an agreement of this sort will allow the ACRC the flexibility to select the best equipment available for its operational needs to efficiently and safely provide winter maintenance services for roadways within Alcona County.

The agreement duration will be for the 2013-2014 winter season and it is estimated that the county will only require MDOT to supply two winter maintenance vehicles.

**ACTION:** Email was sent out to EOC members with information asking for approval. EOC Approved.

### 3. I-96/US-23 Interchange Reconstruction (JN 112881) – B. Krom

The Michigan Concrete Association (MCA) objected to the LCCA done for the I-96/US-23 interchange reconstruction. Their objection centered on the amount of cure time (7 days) included in the LCCA under the new process, as compared to under the old LCCA process (3 days). At a meeting with MCA on September 17, 2013, Greg Johnson was in favor of analyzing this LCCA with a concrete cure time of 3 days. The 7 day cure time LCCA resulted in HMA (by 13.7%); while the 3 day cure time LCCA resulted in concrete (by 11.9%). Without any user delay costs (assume that the bridge work controls the schedule, which the region believes is the case, thus cure time is not a factor), the LCCA results in concrete by 4.3%. Based on this analysis, along with a discussion between Greg Johnson, Paul Ajegba and Brenda O’Brien, it was concluded that this project be let using APB.

Additionally, the University Region would like to utilize the ‘single-set-of-plans’ method they employed on the US-127 APB project, for the I-96/US-23 project. Please see the attached sample plan sheets. The project timeline is as follows:

- **Plan Review:** November 2013
- **Plan Completion:** February 2014
- **Letting:** August 2014 (After reviewing the critical path for the project, they are considering advancing the project letting to July or June 2014, in order to complete construction/open to traffic by the end of 2015.)

The Region believes that by using the ‘single-set-of-plans’ method, they can meet the above deadlines.

**Recommendations:**

Due to this project’s tight time frame, the Region and I are requesting EOC approval for:

1) APB on this project, and
2) Utilize the ‘single-set-of-plans’ method

*ACTION: Email was sent out to EOC members with information asking for approval. EOC Approved.*

NEW BUSINESS
1. The use of Fixed Price Variable Scope (FPVS) on WB I-94 in the Southwest Region – C. Youngs

   The goal of the FPVS project will be to maximize the amount of HMA resurfacing work that can be completed used a fixed dollar amount.

   The project is on WB I-94 from Red Arrow Highway to near I-94BL in Berrien County. The project includes bridge deck overlays on 4 bridges and HMA resurfacing and shoulder reconstruction. The limits of the HMA resurfacing work would vary depending on the bids submitted. Approximately 3 miles of paving is expected to be completed within the available budget. A FPVS procurement will allow the maximum amount of work to be constructed with the available funds.

   Job Number: 113585  
   Control Section: 11015  
   Project Cost: $12,000,000  
   Letting Date: 12/4/2015

   *ACTION: Approved*

2. The use of Fixed Price Variable Scope (FPVS) on a chip seal project on US-12 in the Southwest Region – C. Youngs

   The goal of the FPVS project will be to maximize the amount of Chip Sealing work that can be completed used a fixed dollar amount.

   The CPM project is on a 15.6 mile segment US-12 from the St. Joseph County line to M-86. The project includes double chip sealing and ADA ramp upgrades. The project is expected to be bid by lane miles, and the contractor that bids the most lane miles for will be the selected contractor. The contractors will bid on segments of road by priority. The priorities will be determined as the design is developed. The engineer will estimate how much work is expected based on the available budget, and bid rejection will be considered if a bid has 10% less work than the engineer estimated. A FPVS procurement will allow the maximum amount of work to be constructed with the available funds.

   This project will be included in an existing programmatic SEP-14 for FVPS CPM projects.

   Project Cost: $1,200,000  
   Letting Date: FY 2015  
   Job Number: TBD  
   Control Section: 12021

   *ACTION: Approved*
3. The use of Fixed Price Variable Scope (FPVS) on an ITS project in the North Region – C. Youngs

The goal of the FPVS project will be to maximize the amount of Environmental Sensor Stations (ESS) that can be completed using a fixed dollar amount.

The ITS project will install ESS at various locations in the North Region. The exact locations will be determined during the project’s design. It is anticipated that contractors will submit a bid containing both a price that is at or below the maximum price and the amount of work that can be completed for the bid price. The selected contractor will be the one that can complete the most work. If two or more contractors tie, the contractor with the lowest price for the work will be the selected contractor. The Engineer will estimate the amount of work that can be completed for the available budget, and bids will be considered for rejection if the bid is less than 10% of the amount of work. A preliminary estimate indicates that approximately 14 ESS can be completed with the available budget, and the project design is expected to have approximately 18 ESS available to bid on. The Region and Lansing ITS support this approach on the project. A FPVS procurement will allow the maximum amount of work to be constructed with the available funds.

This project will also need to be approved by the FHWA through the SEP-14 process.

Project Cost: $1,680,000
Letting Date: 12/4/2015
Job Number: 113423
Control Section: 84912

ACTION: Approved

4. The use of Alternate Technical Concepts (ATC’s) for Maintaining Traffic and Staging on a pavement rehabilitation project on US-10 from Pinconning north to the Arenac County Line in the Bay Region - C. Youngs

The goal of using an ATC procurement for maintaining traffic is to allow contractors to develop and incorporate their concepts into the project during the bidding process, saving time and costs at the time of bid instead of through a VECP from a single contractor.

The project is on US-10 from Leaton Road to the Isabella/Midland county line. The project’s informational Life Cycle Cost Analysis (ILCCA) has not been completed at this time; however, the project is expected to be an alternate pavement bidding (APB) project similar to the first APB/ATC project that is being constructed in 2013. In the ATC process, contractors develop their ATC’s during the advertisement period, and can include their bid, or bid on the MDOT.

The APB component of the project will be brought to the EOC once the ILCCA has been completed. This project will also need to be approved by the FHWA through the SEP-14 process.

Project Cost: $15,691,340
Letting Date: 12/1/2017
Job Number: 118947
5. Professional Engineer (PE) License – Continuing Education (CE) – B. Wieferich

Administrative Rules for Continuing Education requirements for PE renewal became effective on October 10, 2013.

The Michigan Department of Licensing and Regulatory Affairs (LARA) recently updated the administrative rules with respect to Professional Engineers, adding the requirement for continuing education. In general, a PE will be required to have 30 Continuing Education Hours (CEH) documented during a two-year renewal period.

Several questions have been posed to LARA regarding the specifics of this new requirement. LARA will be providing more information directly to all licensed PEs through mailings by the end of the year 2013.

ACTION: Brad Wieferich, Engineer of Design will be the MDOT coordinator and will continue discussions with LARA about meeting these new requirements. In addition, a new CEH team will be created that will recommend what MDOT training is CEH eligible and the amount of CEH’s that are appropriate for specific MDOT sponsored training. Brad will draft a guidance document that will describe the role of this new CEH team. The document will also further describe the processes that MDOT will put in place to assist licensed engineering staff with meeting these new requirements.

6. Operations Program Electrical Committee (OPEC) – M. Geib

Operations Program Electrical Committee (OPEC) is an MDOT / MITA / Industry Committee. MDOT members of OPEC are charged with the lead role of partnering with industry to effectively manage the Statewide Electrical Program. If necessary, OPEC may have subtask groups. OPEC will coordinate initiatives with the Statewide Operations and Management Alignment Team (SOMAT) an internal committee within MDOT that assures statewide alignment and consistency for operational functions. OPEC will coordinate activities, as needed, with Engineering Operations Committee (EOC). The OPEC will develop program strategy and policy recommendations, resolve major field issues and lead efforts that continually improve program delivery.

ACTION: EOC directs Operations Field Services to revise the proposed committee structure to ensure consistency with other MDOT/Industry partnering committees. The revised structure will create an internal committee (MDOT only members) that will recommend MDOT policy and investment strategies. The partnering committee (MDOT and Industry membership) will address other issues outlined in the submitted draft guidance document. EOC also directs that the Design Electrical Engineer be added as a committee member. Mark Geib or his representative will bring the updated Guidance Document to EOC for review at a future meeting.

7. Technical Agenda item for Turf Establishment – J. Gutting & K. Schuster

Issue Statement – Improve MDOT’s slope restoration and turf establishment practices to address Municipal Separate Storm Sewer System (MS4) Permit compliance consistency, protect our Authorized Public Agency (APA) status, and reduce maintenance costs associated with degraded slopes.
Across the country sediment is the leading pollutant in watercourses. A technical agenda team was established to review the MDOT slope restoration and turf establishment procedures and practices to address with degraded slopes and inadequate vegetate cover.

The team has evaluated the specific major tasks and sub tasks as identified in the May 3, 2012, memorandum from Greg Johnson, Chief Operations Officer. The respective tasks and subtasks and the associated discussion are grouped together below to enhance document readability and topic flow. The team recommendations are listed at the end of the attached report. Additionally, a briefing paper is attached that includes key points and internal feedback.

**ACTION: EOC approves the report. In addition, EOC directs Jason Gutting and Kristen Schuster to draft some follow-up documents based on the report recommendations. These include supplying a prioritized list of the report recommendations with the estimated cost and benefit of implementing each recommended action.**

8. Addition of angle parking on state trunkline – M. Bott

Angle parking is not permitted on state trunkline. Interest has been expressed by municipalities as part of complete streets to allow such parking. In some downtown areas, a parallel parking configuration does not adequately meet the demand for parking spaces or is limited by other operational issues. In these areas, the use of back-in angled parking can increase parking capacity or more appropriately address site constraints. In order to consider the use of back-in angled parking over parallel parking, certain criteria should be considered.

The addition of angle parking where parking already exists would take an additional width of 10 feet. With no geometric changes this results in the taking of a lane and a possible impact to capacity. The proposed guidelines are to ensure capacity is still maintained and that space is available for vehicle overhang.

The analysis will be conducted by the Region/Geometric Design Unit with final approval by EOC.

The proposed legislation does not distinguish between back-in and pull-in angle parking. Whenever contacted the intent by municipalities is back-in angle parking.

Section 257.675 of the Michigan Vehicle Code allows a local authority to permit angle parking on a roadway by ordinance, except that angle parking cannot be permitted on a state trunk line highway. House Bill 5073 would add, "Unless authorized by the State Transportation Department."

The term "local authorities" in the Vehicle Code means every municipal and other local board or body having authority to enact laws relating to traffic under the constitution and laws of this state.

**ACTION: EOC directs Mark Bott to revise the proposed guidelines based on the meeting discussion. This includes modifying the guidelines to state that EOC will have final approval authority. Mark will bring the updated draft guidelines to a future meeting.**

9. Rollover Signing in the Logo Sign Program – M. Bott

Numerous requests for signing of eligible facilities are made every year at interchanges where there is already a maximum of six businesses participating in a particular service category. The predominant
requests come from restaurants. At locations where there is space for another Logo sign structure or room on an existing Logo sign structure there is difficulty in explaining the logo rules when such practice of “rollover” or adding more businesses to another sign is permitted in other states. In response to the denials additional requests are made and legislation proposed by the legislators for these “unique situations.” By adding the “rollover” to the Logo Sign Program MDOT can treat all such requests fairly and minimize legislative attempts to revise the program through.

The proposed guidelines mirror the language in the Manual on Uniform Traffic Control Devices. The ability to have more than six businesses of a specific service category type is permitted in the Manual on Uniform Traffic Control Devices (MUTCD). The maximum of six logos per sign and the maximum of four Logo sign structures on an approach to an interchange were retained, such that the display of more than six logos for a service would occur on two separate signs. With this change up to 12 businesses for one service category would be allowed on two Logo sign structures.

The ability to have more than six businesses of a specific service category type was added to the Manual on Uniform Traffic Control Devices (MUTCD) in 2009. Approximately 17 states provide this opportunity to businesses.

In Michigan approximately 375 interchanges have logo signing of which 80 would be considered for additional logos.

**ACTION:** Approved

10. Safety Committee Guidance Document – E. Phifer

The Safety Committee is MDOT's principal body for review and discussion of worker safety and health issues and related matters. It also serves as an advisory role to MDOT Safety and Security Administration for safety policy recommendations. Guidance document 10215 defines the roles and responsibilities of the Safety Committee, subcommittees, and the membership.

The previous guidance document was created after the reinvention of the department. The updated guidance document amends the committee membership by adding additional region representation and provides for an additional subcommittee. Members of Region Bureau Management Team have reviewed the document. Approval of the updated version is requested.

**ACTION:** Approved

11. Updating the Work Zone Mobility policy to change the requirements for determining a significant project – A. Kremer

After the 2 Year Work Zone Safety and Mobility Process Review it was found that there are a number of projects that are requiring a full TMP with only a minimal impact to the motoring public. This issue was raised to the Traffic Incident & Work Zone Management Unit during the listening sessions that took place as part of the 2 Year Process Review.

The department is spending a large number of hours and resources developing and reviewing full TMP’s for projects that are only causing road users to be delayed 1 – 2 minutes. These projects are being considered significant because a small window out of the week (one or two hours) is tripping one of the following two requirements currently listed in the mobility manual. The first is that the Volume to Capacity (V/C) ratio is increasing over 0.8, or the second the Level of Service (LOS) of the roadway is going from an A to a C (drops two levels) or a LOS D. As it stands if one of the two
reasons listed occurs for even one hour out of a normal week a full TMP is required to be developed, submitted, and reviewed.

The Work Zone Safety & Mobility Policy review took place and feedback from around the state was gathered and it was determined that the motoring public doesn’t have any idea of what the V/C or LOS of the work zone is. If our customers aren’t aware of these factors as a performance measure then why as a state DOT are we using these measurements to affect our decision making? There is little benefit gained by our customers compared to the hours spent developing and reviewing projects that have a minimal user delay. The TMP process should adapt the same measures our customers are impacted by which is work zone delay. Currently the Work Zone WIG is directly connected to user delay with is translated into user delay cost. This change would allow for our time and effort to focus on areas that will have a greater benefit to the motoring public.

It is recommended that the criteria of a significant project be only when an additional 10 minutes of travel time above the normal travel time is anticipated to take place due to the work zone. Removing the V/C and LOS from the criteria will allow for MDOT to focus our resources on projects that the public will be noticeably affected by. This will improve the quality of not only the design of significant projects but also the review, because there will be less projects that will require a full TMP.

ACTION: Approved.


Because the EUAC difference between HMA and concrete was less than 10% (9.99%), the Michigan Concrete Association (MCA) requested that MDOT consider alternative pavement bidding (APB) on this project. Beginning in April of 2010, and finishing in September 2012, MDOT conducted an APB Technical Agenda evaluation, resulting in a set of seven EOC approved criterion on when to consider a project for APB. For this project, the first of the seven criterion were not met: 1) currently only freeway projects are eligible. Therefore it was decided that APB would not be considered for this project. This was communicated to MCA, and no further correspondence has been received.

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.

Pavement Selection: Reconstruct Hot Mix Asphalt Pavement
CS 24011, JN 110605 & JN 113598
Reconstruct US-31: From Townsend Rd to US-131 in Emmet County
JN 110605: BMP 2.131 to EMP 6.320
JN 113598: BMP 2.700 to EMP 5.585

I am requesting that the referenced project be placed on the agenda for the next Engineering Operations Committee (EOC) meeting. The subject project is programmed for letting in February of 2015, with a July 2014 plan completion.

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 (mainline)
2” HMA, 4E3, Leveling Course (mainline)
3” HMA, 3E3, Base Course (mainline)
1.5” HMA, 5E03, Top Course (shoulders)
2” HMA, 4E03, Leveling Course (shoulders)
3” HMA, 3E03, Base Course (shoulders)
6” Aggregate Base (mainline & shoulders)
18” Sand Subbase
6” dia. Underdrain System
30.5” Total Section Thickness

Present Value Initial Construction Cost $836,026/mile Present Value Initial User Cost $163,421/mile Present Value Maintenance Cost $398,986/mile

Equivalent Uniform Annual Cost (EUAC) $50,763/mile

Alternative #2: Reconstruct with Jointed Plain Concrete Pavement
8” Non-Reinforced Conc Pavt, P1 Modified, w/ 12’ jt spacing (mainline & shoulders)
6” Open Graded Drainage Course (mainline & shoulders) Geotextile Separator
10” Sand Subbase
6” dia. Open-Graded Underdrain System
24” Total Thickness

Present Value Initial Construction Cost $932,026/mile Present Value Initial User Cost $259,900/mile Present Value Maintenance Cost $400,153/mile

Equivalent Uniform Annual Cost (EUAC) $56,397/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 #1: Reconstruct with Hot Mix Asphalt Pavement, be selected. Final pavement selection requires approval by the Engineering Operations Committee.

ACTION: Approved
13. Dave Calabrese Retirement – S. Bower

After 42 plus years of service at FHWA, Dave Calabrese will be retiring on January 2, 2014. There will be a Retirement Celebration on January 7, 2014 from 3:00 – 4:30 pm in the Lakeshore Learning Center, 1st Floor, Van Wagoner Building. Jeff Forster will be representing FHWA on all future EOC Committee Issues.

Congratulations Dave!

Steven Bower, Secretary
Engineering Operations Committee
RA:SB:Isf

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)