ENGINEERING OPERATIONS COMMITTEE MEETING MINUTES
SEPTEMBER 15, 2022, 9 A.M. TO 11 A.M.
MDOT LOBBY CONFERENCE ROOM WITH TEAMS OPTION

Present:	Mark Bott	Ryan Mitchell	Michael Townley
	Gregg Brunner	Dee Parker	Brad Wieferich
	Mark Dionise	Kristin Schuster	Kim Zimmer
	Jason Gutting	Will Thompson	Hal Zweng
Absent:	Carol Aldrich	Rebecca Curtis	Gorette Yung
Guests:	Chris Brookes	Rick Liptak	Carlos Torres
	Andrew Krzisnik	Matthew Radulski	Michael Townley

OLD BUSINESS

1. Approval of the August 18, 2022, meeting minutes – Brad Wieferich

   ACTION: Approved

2. Michigan Department of Transportation (MDOT) new materials and products – Jason Gutting

   A new development sub-committee is being added and setting up guidance.

   ACTION: For information only

NEW BUSINESS

1. Safety Topic: Personal Safety Matrix safety tips
   https://stateofmichigan.sharepoint.com/sites/mdot/Organizational/field_services/safety-security/Shared%20Documents/Personal%20Safety%20Matrix.pdf

   ACTION: For information only

2. Proposed roundabout at the intersection of the I-75 Business Loop and McCoy Road in the City of Gaylord – Andrew Krzisnik and Matt Radulski

   Issue Statement – A roundabout is proposed at the intersection of the I-75 Business Loop and McCoy Road in the City of Gaylord. This high-speed intersection appeared on the most recent high crash list and experiences delay at peak times.

Major Issue(s) - Until 2009, there were only two roads in the Gaylord area that crossed I-75. With the construction of two new bridges on the I-75 mainline, a third key crossing at McCoy Road was established linking the east and west sides of the Gaylord area. This new link has become an important route for local traffic and trucks since it has been designated as an alternate truck route for M-32. Improving operations at this fixed time signal would reduce vehicle delay, primarily for turning vehicles. During peak traffic conditions, left turns can be challenging for all legs of the intersection, but particularly for eastbound and westbound turns where it takes more than one cycle to complete the movement.

Traffic volumes vary greatly from the weekdays to the weekends in Northern Michigan with signals needing to quickly respond to large influxes of traffic. The North Region has had success with implementing responsive signal technologies on the M-32 corridor in Gaylord. However, an operational solution that does not include a traffic signal is desired here because of the potential safety benefits that could be achieved in addition to the operational benefits.

Background/History – This roundabout received funding from the Operations Template and would be built at the same time as a rehabilitation and reconstruction road project on the corridor.

Recommendation(s) – Safety and operations could be improved at this intersection by constructing a roundabout.

Status – The project is at base plans.

ACTION: Approved

3. Approval of modifications to the Manual for Assessing Safety Hardware (MASH) truck/trailer-mounted attenuator (TMA) devices – Chris Brookes

   Issue Statement – Approval of modifications to MASH TMA devices

   Major Issue(s) – MASH devices that are modified after crash testing require approval of the state department of transportation (DOT). At this time, MDOT does not have an official policy, so the modifications are being brought to the EOC for approval until an official process for work zone devices is approved.

   Background/History – Valtir (formally Trinity Highway) has submitted the following letters and any supplemental information associated with modifications to their products:

   A. Modification of Alternate Hydraulic Pump Assembly (August 2, 2022)
      i. This is supported by a letter from KARCO (February 11, 2022) and deemed and no further testing is required.
   B. Modification of lighting harnesses for various Truck/Trailer Mounted Attenuators (July 20, 2022)
      i. This is supported by a letter from KARCO (August 3, 2022) and deemed and no further testing is required.

C. Modification of Pivot Blocks (August 12, 2021)
    i. This is supported by a letter from KARCO (August 27, 2021) and deemed and no further testing is required.
D. Modification to Trailer Mounted Attenuator (May 7, 2021)
    i. Added 6" to lighting harness for fender lights
    ii. Mounting holes adjusted to allow interchangeable utilization or braking systems for multiply suppliers
        1. These are supported by a letter from KARCO and deemed and no further testing is required. (November 30, 2020)
E. Modification to Truck Mounted Attenuator (May 7, 2021)
    i. Changed two bullet connections for improved weatherproofing
    ii. Rubber pads to cushion the forward bay of the system while in the folded storage/transport position.
    iii. Pump mounting holes relocated by 5/16" to allow additional clearance between the hydraulic pump and the adjacent control box.
        1. These are supported by a letter from KARCO and deemed and no further testing is required. (November 30, 2020)

Recommendation(s) – EOC approval of the device modifications is being requested.

ACTION: Approved

4. Approval of the Roadside Safety Hardware Assessment Plan for Work Zone Devices – Chris Brookes

Issue Statement – The acceptance of Work Zone Devices needs to have a separate plan for determining eligibility and crash worthiness due to the complex nature and multiple designs needed to field fit conditions. Under National Cooperative Highway Research Program (NCHRP) 350, modifications and classes of devices were approved. It is not practical to test every design and layout of work zone signs.

Major Issue(s) – MDOT needs to determine a process for accepting modifications to work zone devices. These devices are temporary in nature and are often field adjusted to fit conditions, so every design and layout cannot be tested. Under NCHRP 350, devices were allowed to be passed in groups based upon engineering analysis and similar tests. MDOT needs to determine and approve a plan for how to handle device modifications so that work zones are not limited in what can be utilized to increase motorist safety on the roadway.

Background/History – The Federal Highway Administration set a sunset date of December 31, 2019, to transition to MASH compliant temporary devices, but allowed for the remaining service life of the devices to be used. The service life was never defined and was left up to each state DOT to determine a policy. MDOT provided guidance on August 8, 2019.

Recommendation(s) – The Roadside Safety Hardware Assessment Plan for Work Zone Devices is being submitted for approval by the EOC.

ACTION: Chris Brookes will continue to seek comments and input on the proposed process. Specifically, the Attorney General's office will be asked to provide input regarding managing risks associated with the contractor or supplier certification process.

Digitally signed by: Carol Aldrich
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Carol Aldrich. Secretary
Engineering Operations Committee

RA:lrb

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