

Minutes for TEOPMC Meeting
Saint Cloud, MN
September 25, 2012

Attendees:

Ken Johnson, Traffic, CO
Mitch Bartelt, Traffic, CO
Janelle Anderson, Traffic, CO
Craig Mittelstadt, Construction, COIC
Dave Iverson, Materials Lab
Jim Miles, Traffic, District 1
Michelle Rognerud, Traffic, District 2
Jerilyn Swenson, Traffic, District 3
Tony Hughes, Construction, District 3
Justin Knopf, Traffic, District 4
Heather Gardner, Traffic, Metro District
Mike Lownsbury, Traffic, District 8

Minutes prepared by: Mitch Bartelt, Pavement Marking Engineer, CO Traffic

Office update since the last meeting

- Pavement Marking Typical Drawings have been updated to conform with Chapter 3 of the 2011 MnMUTCD and have been posted to the pavement marking website.
 - I've encouraged TEOPMC members to let me know if they find mistakes. After Metro found a handful in the first week after we posted them, we seem to be okay.
- Adjustments have been made to the Pavement Markings QPL.
 - Most notably, a separate High-Build Paint category has been created.
- Boiler Plate Special Provisions are being developed for High-Build Paint (when used without wet-reflective optics). They will be posted soon.
- Boiler Plate Special Provisions are also being developed in cases where it's desired to have Pavement Marking Removal performed by waterblasting or sandblasting.
 - It's far more expensive than grinding the markings, so it's more fair to bidding contractors to have that information in the bid up front.
- Pavement Marking training is scheduled for December 11-12 in St Cloud. Mitch and John Albeck will be going to D7 October 2 and 3 to ride along with both an epoxy and latex MnDOT maintenance striping truck as a learning experience in advance of conducting training.
- The Passing Lane Typical was approved by the TEO Executive Committee. I need to write something up for Sue's approval, but it's a fait accompli. I will try to get that thrown into the TEM immediately as Figure 7.4A, but feel free to begin using it as your standard.

- The Median Acceleration Lane typical was not approved by the TEO Signing Committee. There was some reluctance due to the signing. Also, the message arrows were cause for concern for some. I think we need to place them by the signs. Feel free to use the drawing as is, but be careful about what you do for signing.
- The Channelized Left Turn drawing was approved by the TEO Signing Committee, but not the TEO Executive Committee. I believe the TEO Executive Committee misunderstood my intentions and assumed I was trying to dictate design policy of offset left turn lanes.

Pavement Marking Management Tool update

- The Pavement Marking Management Tool is in production. We've loaded all of our data. I need to verify that the data loaded correctly and I will do so tomorrow. Assuming it has, we will give it a final "thumbs up."
- I am also reviewing the Final Report and hope to have that done by the end of the week.
 - Thankfully, ISU developed a user help guide as part of their Final Report.
- I will notify the Districts when this is ready for use. It should be soon.

Epoxy thickness for construction applications – should it be thicker?

We tabled this discussion to allow more time to research manufacturers' specifications.

Pavement Markings Under Challenging Conditions – Phase 2

- Change in scope
 - The Pavement Markings Under Challenging Conditions – Phase II and Best Practices for Marking Rumble StripEs projects are underway. Ken J and I intend to make a scope change to the Pavement Markings Under Challenging Conditions – Phase II in order to set up a test section during next year's construction.
- Request for projects to study
 - I think we have a good long microseal in Metro on US 52 that Paul Nolan recommended for next year.
 - We still need a two-lane two-way microseal project and a two-lane two-way chip seal project.

Best Practices on Rumble StripEs: Evaluation of Retroreflectivity and Installation Practices update

- We're also looking for certain rumble stripE projects this year that Iowa State will volunteer to let the Contractor use its Zero-Velocity Bead Gun to see how that affects rumble stripE performance, particularly with respect to retroreflectivity.
- We're requesting projects to utilize zero-velocity bead gun and be recorded with high speed camera.

Wet-reflective markings

OTST is completing its evaluation of 3M Series 70E All Weather Elements for epoxy. We asked District personnel if they would like to add any comments .

I also noted that Potters Visimax Plus Type IV was placed on a high-build WR latex project in D8. TH 4 south of Cosmos for about 18 miles. CL is Potters Visimax Plus Type IV with High Build; SB edge line is also the Potters Visimax Plus Type IV. NB edge line is 3M AWP.

D2 has used a lot of WR epoxy on the Governor's Initiative a while back. They generally like it so far. It is all on the centerline.

D4 and D8 mostly use AWP, not epoxy.

D3 has used some WR epoxy, but uses rumble stripEs in many cases because they're wet-recoverable. They got good feedback on SB US 169 south of Onamia.

D1 hasn't had wet-readings on the WR epoxy, but has had dry readings, and they've come out well.

Ken J mentioned that because there are no good accepted minimum retro standards at this point for wet-reflective markings, that makes it complicated to evaluate them.

Round Robin

NTPEP Test Deck

Minnesota is being considered for another NTPEP test deck in 2013. Ken J would like to add a grooved-in wet-reflective test deck as part of it. We also want to make it a condition of being on the MnDOT QPL for pavement markings to be on the test deck.

Preformed thermoplastic messages

Many attendees had good things to say about their experiences with these. D1 had a preformed thermoplastic demonstration done at a Rest Area in Grand Portage. It cost them \$300 for 4 handicap space messages. Tim Lang from Flint Trading was present during the demo. Jim M noted that it went down easily, but needed a primer on concrete. There hadn't been any markings previously, but a truck had knocked over the new handicap sign. They also installed some message arrows. Flint Premark, not Vizigrip, was used.

Jim M also e-mailed me some pictures of this installation. Refer to the attached file [E120120926 Photos of Preformed Thermoplastic.pdf](#).

Heather G noted the strong performance of Flint Premark preformed thermoplastic arrows at the TH 61 roundabout at Jamaica Ave in Cottage Grove.

D2 and D8 have little to no experience with these markings.

DLS and MRM specification ready for use

Craig M asked if we still planned on going forward with the Data Logging Systems and Mobile Van Reflectometer Measurement requirements. Ken J responded that we're proceeding full-speed ahead on the DLS. It should be in all 2013 projects more than one centerline mile in length. Ken J has all of the new language put together and will add all of this into the Boiler Plate Special Provisions as soon as he can.

For MRM, we want Districts to pick and choose, but try a few projects in 2013. There was some concern from COIC whether industry would be able to keep up with the MRM portion. Ken J responded that's why we want to proceed more slowly with the MRM and experiment with it, in contrast with the DLS, where we're making it an explicit requirement on all jobs greater than one centerline mile in length.

Ken J and I noted that the DLS requirement is incidental to striping, but MRM will be a separate pay item within 2582.

Ken J showed the Excel spreadsheet he has put together for this. His spreadsheet notes the difference between the Tool data required to be submitted and extra data we're requesting (that will likely be included at a later date into an improved version of the Tool).

Bypass lanes

Jerilyn S had a question regarding bypass lane signing. She said turn lane signs used to be at the taper, and now they're at the full width of the turn lane instead. One drawback of this change was that she felt a driver doesn't find out as soon that there's a turn lane and where it begins. She was wondering if there was a way to notify the driver sooner with pavement markings.

Janelle said that an optional normal-width dotted lane line extension is the way to go. It would go only from the beginning of the taper to the beginning of the solid white line delineating the turn lane. Refer to [Figure 3B-13 in the 2011 MnMUTCD](#) for more details.

Hiring a bicycle/pedestrian engineer – Janelle A

OTST will be hiring a Pedestrian and Bicycle Safety Engineer. This person will report to Janelle A. OTST will fund 50% of the position and so will the Bike/Ped unit downtown. The reason it was chosen to have an engineer in this position was to have more of a technical expert.

Janelle said this person will work with the Bike/Ped unit downtown. She also said that crashes with pedestrians have been going up lately. Janelle said this person would be able to help with setting a crosswalk policy. She envisioned this person being involved in construction some, but more with permanent applications.

Crosswalk policy – should we develop one that applies statewide?

We've had various surveys at previous meetings that show some inconsistency statewide. When I broached this topic at the meeting, there was a unanimous desire to develop a statewide policy (though they wanted to see what it looked like before they unanimously adopted it).

The committee came up with the following things to consider in developing this:

- Crosswalk design
 - Blocks, diagonal, or two tranverse lines?
- Stop bars prior to crosswalks or not?
- Minor approaches - who pays for initial installations?
 - Different conditions for signalized intersection vs. unsignalized?
- Maintenance policy - including local legs
- Free rights at ramps

- School crosswalks – who maintains?
- Part of the TEM review? Or a standalone policy?
- State Aid considerations

Janelle recommended keeping minutes and bullet points of discussion. It is helpful from a tort/liability perspective. It can also provide immunity from social, environmental, economic, and political considerations.

Action item: develop a draft MnDOT crosswalk policy.

Markings in roundabouts – Ken J

Ken J noted that on design/build projects, some consultants have taken advantage of a lack of information in Chapter 7 of the TEM. Ken asked if the Districts desired more clarity or added guidance on this in the TEM. Some things to consider were more declarative guidance on left edgelines, message arrow placement, etc. Not all District members have roundabouts in their Districts, but they agreed with having more information.

Action item: We will add a multilane drawing for the Chapter 7 TEM review.

Meeting dates for 2013*

~~Tuesday, February 26~~ – rescheduled for March 6, 2013

Tuesday, May 21

Tuesday, September 10

Thursday, December 12

*All in St Cloud