

## TEO TTC Committee – Quarterly Meeting Minutes

### August 5, 2014 - Arden Hills Training Center

CO Members:	Greater MN Members:	Metro Members:	Guests:
X - Ken Johnson X - Ted Ulven X - Michelle Moser X - Craig Mittelstadt X - Leigh Kriewall - Bob Vasek X - Sue Lorentz X - Kathy Schaefer X - Todd Haglin	X - David Mavec D1 - Todd Larson D2 - Jerilyn Swenson D3 - Tim Janski D3 X - Les Bjerketvedt D4 - Jeff Rieder D6 X - Adam Wellner D6 X - Scott Thompson D7 - Brad Bruegger D7 - Ryan Barney D8 - Jeff Knofczynski D8 X - Rachel Guan D8	X - Tiffany Dagon - Jonathan Re - Scott Meier X - Kevin Farraher X - Sheila Johnson X - Dave Tody - Jeff Gibbons - Rod Clark - John McClellan	X - Tom Dumont X - Bill Pirkl X - Jeff Morey X - Janelle Anderson

#### **DISCUSSION TOPICS (Updates, new business, and questions for the committee):**

##### **Minutes from the May meeting:**

The minutes and action items from the May 6<sup>th</sup> quarterly meeting were reviewed and approved. The membership list will be updated.

##### **Temporary Portable Rumble Strip information:**

Road Quake Portable Temporary Rumble strips have been used by MnDOT Maintenance for many years. The Company has continually improved the design, material composition, and installation methods to improve the products performance. It has been successfully used by MnDOT as has a competitor's similar product.

Road Quake believes their product to be superior and has asked MnDOT to exclude others from our APL. They suggest a side by side test, at high speeds, to prove their product does not move or creep as others might.

There was discussion and comments from the districts that have used this type of product. All agreed that these would not normally be used on high speed (70+mph) roadways. Most applications would be the approach area of a Flagger Station, a detour, a temporary Stop, and when approaching a lower speed zone. The purpose of the APL is to assure that products meet a minimum standard and fulfill the required need. Maintenance is not required to purchase only products on the APL. The APL is more applicable to construction projects and this product has not been used much in those situations.

**Action item: MnDOT will continue to determine the test method for a products acceptance to the APL. The task force for APL review could discuss if any further testing of this item occur. The Districts that utilize this product will talk to their crews regarding the performance of the rumble strips.**

##### **D8 would like to discuss Layout 53 and relocating the FAB to the end of the taper due to minimal size of the left shoulder.**

Rachel presented a situation where their Maintenance forces do not find it practical to place the FAB at the beginning of a left lane closure taper. Narrow left shoulders and the vulnerability of the FAB to

traffic at the beginning of the taper are concerns. They suggested switching locations of the Type III and the FAB which would also protect the FAB by moving it downstream.

Our layout and the FHWA layout for a lane closure were reviewed. It is a standard to place the FAB at the beginning of the taper except when there is no room to do so. In that case it is to be moved downstream in the taper until it fits. Since Maintenance typically uses Truck mounted FAB's this often occurs. "L" is the distance for the length of the taper and is not always the distance between the FAB and the Type III. The committee also stated that instead of substituting the items, it could be enhanced with an additional FAB.

**The AASHTO Road Design Guide has a table of values for Roll-Ahead and Following distances that differ from ours. Discuss if we need to consider changes.**

It was discussed if we need to review our "R" and "F" distances we specify in the MN MUTCD. The "R" values are close to the AASHTO table but our "F" is much longer. Some practical issues brought up include traffic intrusions between protection vehicles and the need to tighten up spacing on ramps. The "F" distance is sometimes shortened in the field due to conditions and the practice is covered in training. It was pointed out that our "F" is actually the range of distances for the advance warning "A" and the decision sight distance. This is appropriate since these shadow vehicles are used for the advance notice to move over. The "R" distance is broken into Moving and Stopped. Other considerations could include if air brakes are applied, if a TMA is attached, the mass of the host vehicle and if it is loaded.

**Action Item: OTST will research this issue, verify "R" distance, and determine if a TMA will change "R".**

**Inspection and maintenance of Traffic Control Devices: is a daily check enough? Should it be more frequent and specified better in the construction documents?**

Is a daily check of Traffic Control Devices adequate given the sometimes severe weather that can occur during the construction season? The need to reset cones and other devices will depend upon the weather conditions encountered each day, highly windy days will require more attention. Even if the TC subcontractor is not on hand, the prime contractor or MnDOT inspector may call to report needed maintenance. Another thought is that some other contractor be delegated for maintenance when the TC subcontractor is not present. The 1404 spec states that deficiencies shall be corrected immediately and a monetary deduction will occur after 1 hour of notice. The list of 3 names and phone numbers for traffic control device maintenance is not just for "after hours" but can be used anytime.

**Action Item: At the Special Provision Committee Meeting in October, Craig will discuss this concern.**

**Post mounted detour sign assemblies too close to existing sign posts affecting its crashworthiness.**

Road Work on freeways that affect ramps typically have designated detours that require signing. For longer term projects detour signs should be post mounted so they stay in place and visible to the motorist. Often these are installed near existing guide sign assemblies. Some have been observed to be installed too close to existing sign posts such that more than two posts are within the space of 84 inches. This spacing adversely affects the crashworthiness of the entire structure. It was discussed if this spacing requirement should be made more explicit to the contractor and how to best accomplish that. An alternative to the lateral spacing requirement would be to mount the temporary sign downstream maybe 5 or 10 feet so that a vehicle strike would not be encountering too many sign posts in one event.

**Action Item:** An additional note will be added to the sign installation detail sheet to better communicate the crashworthiness design requirements.

### **Work Zone Speed Reduction:**

Legislation that took effect August 1<sup>st</sup> requires the use of a Workers Present Speed Limit on projects meeting certain criteria. The fines for speed violations in any work zone change from double fines to a \$300 minimum. The legislation and interpretation were discussed. On a roadway with a work zone lane closure and a speed limit of greater than 50mph, a 45 mph Workers Present SL will be required when workers are adjacent to traffic unless:

- the traffic control devices are deployed less than 24 hours
- Positive protection exists for the workers
- Another SL is determined for the project

As a result of the change in the state law, the “fines double” plaque is no longer appropriate and should be removed from existing installations. Other plaques that would be appropriate and may be used are the blk/org “Work Zone” and blk/wht “\$300 Fine”. The committee was interested in these plaques as a way of communicating to the motorist of the presence of a Higher Fines Area. They did decide to keep the plaque use optional at this time and let the MN MUTCD committee determine if it should be required.

Sign size minimums will remain as the current guidance states. For a R2-1 “Speed Limit” on a freeway, that means using the expressway size signs. Since this signing is usually used with a lane closure, the existing multilane is reduced to a single lane and the sign size is appropriate for that traffic.

The state law requires us to inform the motorist of the end of the Higher Fines Zone. There is a Minnesota specific sign R2-6c “End Work Speed Zone” available only in a 24”x30” size that is somewhat undersized for a freeway. The committee agreed to replace that sign with the FHWA sign R2-12 “End Work Zone Speed Limit” that is available in a larger and a small size. This change will be made in the next update of the Standard Signs Manual/Summary.

**Action Item:** Chapter 6H will be updated to reflect the legislation and committees decisions to be presented to the MN MUTCD committee for review and approval.

### **Round Robin:**

- Ken Johnson pointed out that the “move over” law applies to all work zones with flashing warning lights. It does not mention slow down but only to move over if it is safe to do so. There is existing permanent signing to inform the motorist of this and the committee thought maybe something could be done to increase conspicuity. There are options in the MN MUTCD to do this if a district is interested.
- Dave Mavec says that their maintenance crews are interested in using truck mounted DSD signs in moving operations. Metro has some of these and used them years ago but they suffer a lot of wear and tear and are currently down for repair which is a low priority to the mechanics. D1 would use them with an advisory SL sign and appropriate warning sign.
- Tiffany discussed the difficulties in correctly using the Workers Present Speed Limit. Will Construction see that it is installed as shown in the layouts, taken down when appropriate, and enforce monetary deductions when needed? Construction has to make clear the cooperation between contractors to get this right. There have been problems because crews are spread out,

move thru the WZ, and especially at night when visibility is poor. Template sheets that clearly show where to place the signs and devices correctly will help.

- Leigh is involved in the filming of the new Flagger Training Video. She shared some information they discovered, including the requirement that a pilot car must be used with a flagger and not temporary signals. The pilot car sign is usually mounted atop the vehicle but sometimes on the back of it. They were questioning if that met the minimum height requirement. The MN MUTCD guidance shows only that a vehicle mounted sign be 1 foot above the roadway. It seems to most that atop the vehicle would be the preferred placement.
- Sheila has ordered some GOPRO cameras for her Traffic Control crews. These will be used in various locations such as on a Flagger and on the fore/aft of the cone-setting truck. It was discussed that a Flagger wearing a GOPRO camera may get better compliance and less road rage due to the recorded video.
- Rachel asked about how frequently to install confirmatory detour signing on a long detour. They would usually put them at major intersections but are concerned about motorist expectations. D7 said they place confirmatory signs at intersections with paved roads or every 5 miles. D6 would normally place them at intersections with paved roads. D2 would sign at major traffic generators.
- Ken Johnson asked the committee about the purpose of the APL. To clarify that it is not a buy list for maintenance but rather a tool for what contractors may use on construction projects that meet minimum standards. It is also of use for maintenance to specify what permanent products it wants and is capable of maintaining.

**Next Regular Meeting:** October 28, 2014 at Arden Hill Training Center Rm 11, 9:00 AM