

Statewide Work Zone Safety Committee Meeting

March 16, 2009 – Fargo, North Dakota

Attendees:

The attendance roster is listed at the end of these minutes. The list includes guests.

Guest Presenters:

Laura Dennis, ATSSA Director of Government Relations, was the guest speaker for the combined ATSSA and SWZSC luncheon. Her topic was the national stimulus package and how it will be impacting the highway safety industry. Her presentation will be available online on the Northland ATSSA website: <http://www.northlandatssa.com/>

Tim Cox, Government Relations Manager for Plastic Safety Systems, Inc., presented a new rumble strip product to the committee. The product is unique from anything available on the market since it does not require any fastening to the roadway, and is held in place by its weight and design characteristics. Each piece weighs 105 lbs and it is anticipated that 3 sections would be placed in each rumble strip location. PSS will be studying the sound levels with associated spacing patterns as well as effects on motorcycles. This may be a mitigation solution for inattentive drivers approaching work zones.

Mike Engh and **Kent Barnard**, Metro Traffic & Metro Communications respectively, presented a summary report on the Intelligent Work Zone Systems utilized on the Hastings Bridge project during the summer of 2008. Kent told about the various public relations issues associated with the project and Mike reported on the TTC plan and how Mn/DOT worked with the locals on providing for emergency services during the project. The project utilized temporary surveillance cameras, stopped traffic detection and warning signs, and a delay time system which displayed wait times for the bridge crossing. The delay time displays were located such that motorists could decide to take an alternate route.

The following status reports were presented for Previous Action Items and Round-Robin Topics:

Maintenance:

- **PREVIOUS ACTION ITEM:** **Marv Sohlo** will work with **Steve Lund** on the additional guidance for the Electronic TTC Device Inventory which may be needed and they will get a note to the AMEs soon.
STATUS: Steve sent out additional guidance to the districts on the inventory needs. He has received 6 of the 8 districts' information to-date, and forwarded the reports to Traffic for evaluation. We are waiting for the remaining districts to respond. Marv presented a spreadsheet showing the inventory summary to-date. With 6 Districts reporting, we have 292 Flashing Arrow Panels, of which 204 are not currently on the Approved Product List, and 95 Changeable Message Signs, of which 31 are not currently shown on the APL.
ACTION ITEM: John Benson and Ken Nelson will be visiting districts to review several models that represent the majority of units not listed. It is assumed that some of these older models may be approved to be included on the APL. They will also be visiting contractor's yards upon request to review other models for inclusion on the APL.

- **PREVIOUS ACTION ITEM:** The **Statewide Maintenance WZS** committee should deal with the TMA Test Level requirement issue for replacement programs.

STATUS: **Randy Reznicek** reported the committee recommends that the following policy be implemented for the replacement of Truck/Trailer Mounted Attenuators (TMA):

Background: Utilizing NCHRP 350 testing procedures, TMAs may be approved at two levels of crash testing based upon speed of the crash vehicle in relation to the TMA. The test levels are TL-2 crashed at a speed differential of 45 mph and TL-3 which uses a speed differential of 62 mph. Currently, Mn/DOT utilizes both TL-2 and TL-3 TMAs in its fleet.

Recommendations: It is recommended that Mn/DOT start a program to reduce the number of TL-2 TMAs in its fleet and utilize its growing number of TL-3 TMAs on higher volume and higher speed roadways. The program's final goal is to upgrade Mn/DOT's fleet of TMAs to TL-3 or higher before **December 31, 2020**. Therefore, it is recommended that:

- All TMAs damaged beyond repair shall be replaced with a TL-3 TMA.
- TL-2 TMAs currently in the fleet may continue to be utilized until all TMAs have all been brought up to TL-3 standards.
- TL-2 TMAs damaged beyond repair assigned to a two-lane road shall be swapped with a TL-2 off a freeway or expressway. A freeway or expressway assignment should have first priority for the replacement TL-3 TMA.
- Mn/DOT's fleet of TMAs should be totally upgraded to TL-3 TMAs on vehicles assigned to freeways and expressways prior to **December 31, 2015**.
- TL-2 TMAs shall be removed from Mn/DOT's fleet prior to **December 31, 2020**, except where TL-2 TMAs have been approved for special purpose assignments following a risk analysis study.

ACTION ITEM: The recommendation to upgrade Mn/DOT's fleet of TMAs to TL-3 will be presented to the District AMEs for their comments and upon approval the recommendations will be processed in a Tech Memo. **The dates stated in the proposal shown above are open to discussion and change**, although there is not an immediate concern to upgrade the fleet, the SWZSC wants a compliance date be included to ensure that the upgrade process is accomplished.

- **PREVIOUS ACTION ITEM:** **Steve Lund** will ask Bob Winter if he thinks the Speakers Bureau should be elevated to a higher level perhaps Commissioners staff because of the new emphasis on safety, innovation, transparency, and rebuilding trust with the public.
STATUS: Steve had discussions with Bob Winter, and it was decided to bring this to the Communications Office. This is being considered as part of the "Mn/DOT Marketing" discussion currently underway.
- LED Beacons have been requested by District 6 for trial usage on several medium duty vehicles. Recent research study concluded that LED Beacons are not as bright as our standard strobe beacons, and the study recommended that we continue with our current standards until LED technology continues to improve. While LED may never be as bright as strobes, but perhaps they do not have to be that bright to be effective. A literature review should be conducted and further research to determine the "required" light level needed (human factors), which should include issues conspicuity in bright daylight, whether the "full 360 degrees" is necessary (or if small gaps in coverage would be adequate), the required vertical viewing angle. It is possible that LED beacons may supply "adequate" brightness although they are not "equal" to a strobe beacon.
PREVIOUS ACTION ITEM: **Jon Jackels** will request a literature search for information and will follow up on the human factors needs for beacons/strobes in general (LED or other).

Steve Lund will survey other states to determine what states may be using LEDs on their maintenance vehicles, and what standards did they use to approve the usage.

STATUS: Jon received a listing of various literature and reports on LED beacons and very little information was found on the subject with no useful data on human factors research for work vehicle beacons concerning LEDs. Steve has asked some key maintenance personnel/states (Iowa and Virginia) to comment on this, but he has not yet received a response. There was a discussion between OTST, OCIC and Maintenance regarding D-6's request to experiment with LED Beacons on light and medium duty trucks starting in 2009. D-6 was given permission to equip several light & medium duty trucks with LED beacons.

ACTION ITEM: **Ryan Otte** in the Office of Maintenance will work with D-6 on their request to experiment with LED beacons. The LED beacons will be studied by the **Maintenance, Construction and Traffic Offices** for possible inclusion in Mn/DOT standards for vehicle lighting packages. They should confer with State Patrol on lessons learned regarding LED beacons during winter conditions and visibility issues.

- **Sue Lorentz** reported that Metro has recently spent \$670K for traffic safety equipment improvements. Metro will be training in 65 new maintenance hires in the next months.

Communications:

- **Kent Barnard** reported that Mn/DOT will be observing Worker Memorial Day on April 28th.
- April 7th will be the kick-off date for Work Zone Awareness with PSA for television and radio.

Worker Safety:

- **Todd Haglin** reported they have a committee currently working on a new contract for high visibility garments because the current contract expires in April. They are working on uniformity of the garments and determining what may be needed such as shirts, hats, vests, pants, etc. One issue noted by the committee included the availability of more orange on the garments for use during the corn season. The yellow-green blends into the corn fields at times of the growing season and alternative garments must be available.

State Aid:

- Taken from OCT 2007 Minutes: Jon and Bill reported that it has become an increasingly larger problem that local governments are funding projects that involve state highways (directly or in-directly). Since projects using local funds generally are not required to follow the TEM (state standards) or our typical special provision language, they have substandard work zone practices when they are on state R/W. It is proposed that all state standards, and current tech memos not currently included in state manuals, should apply to all projects within state R/W regardless of the funding source.
PREVIOUS ACTION ITEM: **Mark Vizecky** and **Marv Sohlo** will draft a Tech Memo to cover all current tech memos and manuals, where the implementation jurisdiction applies to the project funding (such as, State and State-Aid, etc), be changed to the projects' limits (such as, "within state R/W"). The issue must be researched and proper language drafted.
STATUS: No progress has been made on this issue to-date.

Construction – OCIC:

- The Resident Engineer representative for SWZSC is currently vacant since Jeff Perkins, Steve Kordosky and Kevin Kosobud have all taken different positions. It was suggested the Trudy Kordosky could possibly become the representative.
PREVIOUS ACTION ITEM: OCIC will work with the Resident Engineer's Committee and appoint a new representative, who should be able to attend the next SWZSC meeting in March 2009.
STATUS: **Trudy Kordosky** has been asked and accepted the duties as representative for the Resident Engineers. Steve Kordosky will also remain on the committee although he currently is working in a different position. Trudy attended this meeting.
- **Craig Mittelstadt** reported that the OCIC has developed a template for a flyer which can be modified for any project using Pilot Car Operations. The flyer has information describing pilot car operations such that residents and business owners in the vicinity of such an operation will become familiar with the procedure. The Project Engineer may enter project specific information into the flyer such as dates and project description. The Contractor would be required to distribute the flyers to residents in the area prior to construction. The details for the distribution would be added to the special provisions for the project.
- Non-complaint sheeting and TTC devices will NOT be tolerated on construction projects and will be rejected from the project. **Tom Ravn** re-emphasized the message to the committee and Craig handed out copies of the letter sent to every Traffic Control Contractor in October of 2008.

Traffic Engineering:

- **PREVIOUS ACTION ITEM:** The **TEO WZSC** will develop a statewide standard for late merge signing and guidance for its usage. They will also work with the PACs and Office of Communications to promote an informational campaign for late merge.
STATUS: The committee determined that the signage should be standardized for statewide uniformity and warrants should be developed for appropriate deployments of the late merge strategy. Draft layouts were developed and distributed to the committee for review and comments. The proposed layout and signage will be used on several projects in 2009.
ACTION ITEM: The committee will continue to develop guidance which should have basic warrants for implementation to supplement the typical layouts.
- **PREVIOUS ACTION ITEM:** **Jon Jackels** will work with Lt. Mark Peterson from State Patrol to incorporate the maintenance vehicles into his standard "Move Over" message in future presentations.
STATUS: Jon discussed the safety message with State Patrol and they agreed to include maintenance and construction vehicles in their future messages regarding the "Move Over Law".
- **PREVIOUS ACTION ITEM:** The TEO WZSC will work on coordinating the meeting conference and developing a list of possible topics that may be addressed.
STATUS: The topic has been elevated to the entire TEO Committee and all subcommittees to develop a suitable meeting/conference. The TEO Work Zone Committee submitted the

following topics as possible candidates: Approved Product List, Temporary Speed Limits, Field Markings, and TTC plans for unique projects such as bridge painting, etc.

- **Marv Sohlo** distributed the draft Summary Report for the 2008 Feedback Meetings and asked the SWZSC for recommendations on 3 issues within the report. The committee gave recommendations on the 3 issues.

ACTION ITEM: Marv will incorporate them into the Final Report and will finalize and distribute the “**Feed-Back on the Process – 2008 Summary Report**” (Improving the Process for Providing Mobility and Safety in Work Zones). The final version will be sent to the Division Directors and all District Engineers. The Districts that were visited will also get a copy of their own summarized district report. The DTEs have already reviewed the District Summary Reports and received the rough notes from their meeting.

State Patrol

- Major Al Smith, reported that there has been improved coordination with Maintenance for the repair of temporary barrier in work zones.
- The Patrol recommended that Mn/DOT make contact with the Patrol about Extra Enforcement on construction projects. They need time to schedule troopers for the assignment and need all the contact information for the project for emergency situations prior to the start of the project.
- There has been a statewide study of the State Dispatch system and how it may be streamlined into fewer locations which could provide improved staffing capabilities. The system would utilize the 800 MHz radio system and could combine multiple agency dispatching including Patrol, DOT, Health & DNR.

Permits

- **Steve Maack**, the permits representative from Detroit Lakes, passed away last summer and a replacement representative from the Statewide Permit Committee must be contacted.
ACTION ITEM: Marv will contact **Tom Streiff** from District 6 as suggested by the SWZS Committee.

**Next SWZSC Meeting: October of 2009 at the Arden Hills Training Center
A meeting notice of the exact date and time will be sent out in the near future.**

ACTION ITEM: Midway between meetings, the SWZSC Coordinator, Marv Sohlo, will follow up with each action item and provide a status report to the committee for review.

Refer to the following link for all current Work Zone information, standards, and documents, including the SWZSC information, such as previous meeting minutes and announcements.

<http://www.dot.state.mn.us/trafficeng/workzone/index.html>

Statewide Work Zone Safety Committee Attendance – March 16, 2009

name:	representing:	email:	phone:	present:
Michael Barnes	Division Director	michael.barnes@dot.state.mn.us	651-366-4825	<input type="checkbox"/>
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VACANT	Minnesota Cities			<input type="checkbox"/>
Jay Blanchard	ATSSA - Safety Signs	jayblanchard@safetysigns-mn.com	952-469-6700	X
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Gary Thompson	Consultant - URS	gary_thompson@URSCorp.com	612-373-6852	<input type="checkbox"/>
VACANT	Minnesota Utilities			<input type="checkbox"/>
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VACANT	Permits			<input type="checkbox"/>
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