

Statewide Work Zone Safety Committee Meeting

October 28, 2008 – Arden Hills Training Center

Attendees:

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

Announcements:

A few changes in the membership listing:

- Bernie Arseneau has become a Division Director and Susan Groth has been promoted to the position of Office Director for the Office of Traffic, Safety & Technology (formerly OTSO). Sue will take Bernie's former role as co-chair of this committee meeting.
- Rick Arnebeck (Division Director for Engineering Services) has retired and Mike Barnes will take his place on the Executive Committee. Bernie will be included on the Executive Committee with the addition of the Policy, Safety & Strategic Initiatives Division. Bob Winter will continue to represent the Operations Division for the committee.
- A few members announced that this will be their last "official" meeting with this committee. Rick West from Otter Tail County will be turning his duties over to a new county representative that will be determined by MCEA after the first of year. Judy Melander will be retiring in March of 2009. Doug Haeder (District 7 State Aid) will be ending his 2 year term as a District State Aid representative and will be replaced with Tom Behm from District 8.

State Patrol:

- Major Al Smith reported that the State Patrol likes the late merge concept, but they are seeing confusion between drivers for the proper time to use the procedure. The confusion has resulted in more "Road Rage" incidents during congestion situations when lane closures are encountered. The Patrol would like to see more statewide publicity on what the late merge concept and more explanation that "using both lanes" is legal and is safer during backups. See the TEO WZSC Report for details on the use of more signage to promote the late merge concept.
- Al reported that electronic speed trailers, Dynamic Speed Display (DSD) signs or aka "Your Speed" signs, have been working out fantastically. He feels they are the next best thing to actually having a patrol car present. See the IWZ Seed Program Report for more details on DSD equipment purchases for the Mn/DOT Districts.

TTC Services - Northland ATSSA:

- Tim Lewis reported that Northland ATSSA will be conducting its annual "How-To" Conference in Fargo North Dakota on March 17-18, 2009.
- National ATSSA has published "ITS Safety and Mobility Solutions – Improving Travel Through America's Work Zones", which is overview of the commonly used ITS applications that are easily implemented into any work zone. The booklet can be found on the ATSSA website at:
http://www.atssa.com/galleries/default-file/2008July21_ITS_Safety_and_Mobility.pdf

Worker Safety:

- Todd Haglin reported that the Division Directors have approved the usage of a new defensive driving course for employee training and that the new course will become mandatory for all Mn/DOT employees. Todd demonstrated a small portion of the e-learning course to the committee.
- Todd demonstrated the AccTrak database which contains all motor vehicle crashes involving Mn/DOT vehicles or mobile equipment statewide. The database may be queried by type of crash and by type of equipment within limits. Todd felt most of the IT bugs have been worked out. The challenge is to get better/complete data on the crash report form. This data will be utilized in the review of TMA usage and their previous crash performance.
- Todd stressed the need for individual safety training plans which combines with other position related training plans. EDMS can track all employee training and each position should have a training plan which needs to be kept current.

Anatomy of a Winter Storm: Public Awareness Campaign

- Mark Meohlenbrock from D-3 Safety presented the crash data for snowplowing incidents statewide and used D-3 as an example of a growing trend of crashes which appear to be caused by driver inattention and inexperience around plows. Mark suggested that Mn/DOT partner with DPS, MDTSEA, SCSU, MTA, FHWA and others to develop a new campaign to improve snowplow safety.

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.

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.

Public Affairs:

- Judy Melander reported on the various activities that the Communications Office have been participating in recently, including involving the Commissioner in an Elementary School visit, participation at a U of M football game and Welcome Week, distribution of 2009 calendars with a safety message, and plans for upcoming Snow & Ice Kickoff campaign.
- It was reported that the statewide Work Zone Safety campaign budget has gone down from \$250K two years ago to near zero today.

Maintenance:

- At the March 2008 meeting, the SWZSC proposed that Steve Lund issue a memo to all District Area Maintenance Engineers that would recommend a review of their current fleet for equipment which is non-compliant to the MnMUTCD, TEM, or other state policies/standards/specifications. A plan of action should be made by each district to replace deficient equipment within a timeline with special attention made to flashing arrow panels.

Steve reported that the letter was distributed to every District with a deadline of December 31, 2008 for their information. The letter requests an inventory of electronic traffic control devices including PCMS and arrow panels. The letter also asked for each district's plan to upgrade their fleet with a target compliance date of June 30, 2010. It was pointed out that only equipment models listed on the Approved Product List are considered compliant. Sue Lorentz had concerns regarding Metro's aging fleet of arrow panels. Most are older than 1995 models and are not on the current APL. It was noted that the devices may be old, but still meet standards. Steven will turn the inventory over to OTST for review and non-complaint equipment will be studied. Marv reported that OSTs is willing to review older models and may expand the list with those models if they are "proven" to be acceptable. From discussion, it appears that the districts may have misinterpreted the need for the inventory or what a plan should include, and additional guidance may be necessary.

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 AME's soon.

- Steve requested that the issue of Test Level (TL) 2 vs. 3 attenuators requirements needs to be resolved. The districts need a statewide policy for developing their equipment replacement programs.

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

- LED Beacons have been requested by District 6 for trial usage on several medium duty vehicles. Steve asked about the status of the issue. It was presented that a 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. It was discussed that while LED may never be as bright as strobes, but perhaps they do not have to be that bright to be effective. It was suggested that a literature review be conducted and possible further research to determine the "required" light level needed (human factors), which should include issues conspicuity in bright daylight, whether the "full 360o" 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.

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.

Maintenance Training:

- Ken Nelson noted that enforcement of training requirements for the field manual has been a problem from the supervisor on down in some areas. The supervisors have skipped training or continue non-complaint practices regardless of training. Ken does not have the authority

to enforcement training requirements or adherence to the standards. Steve Lund encouraged Ken to get more involved with the Superintendents and report issues to them for resolution.

- Randy Reznicek noted that many state employees who work construction have not been attending various safety and TTC training. Training schedules tend to be scheduled during construction's busy time and time commitments are difficult. Rescheduling has not been practical in most cases. It was requested that a training plan be developed and that they be followed.

ACTION ITEM: Tom Ravn and Craig Mittelstadt will address the issue to the resident engineers that they need to determine the training needs of their staff and emphasize that the TTC safety training be attended.

Metro Maintenance:

- Sue Lorentz reported that Metro trained 80 new maintenance employees in the last month.

Construction – OCIC:

- Tom Ravn reported that OCIC has issued a letter to all normal TTC suppliers for the State of Minnesota which has given them notice that Mn/DOT will no longer tolerate non-complaint TTC devices.
 - Three issues have been noticed among the previous year's projects.
 - The proper retro-reflective sheeting on devices including signs, channelizers and barricades. Compliance to the Approved Product List for devices as they apply.
 - Devices that have a corresponding APL, must be on the list before being allowed on the project.
- Compliance to the crash testing provisions which requires all Category I and II devices to pass NCHRP 350 testing requirements. Category II includes portable sign supports and barricades. Non-compliant devices found on projects will be considered "Unacceptable and Unauthorized Work" and failure to remove and replace the devices will result in no payment for the devices. As a follow up for the compliance issue, Jon Jackels reported that next construction season, Marv Sohlo and John Benson will audit some of the TTC devices on random projects to monitor TTC contractors' compliancy for various specs & standards, APL, quality standards, and crashworthiness requirements.
- 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, but any one working in the field with knowledge of the problems and a determination to correct issues may be appropriate for the committee. Tom Krier was also suggested as a possible candidate.

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.

Special Provisions:

Craig Mittelstadt reported that the Special Provisions Committee met in October of 2008, and several issues were addressed and many changes to the 1404 Special Provisions will be made prior to the next construction season. Some of the issues included:

- Any Portable Concrete Barrier (PCB) which has been crash-tested may be allowed on Minnesota Projects. This would allow PCB that is currently allowed in North Dakota and

South Dakota to be used here. The old MN design PCB has never been crash-tested and will not be allowed after December of 2008.

- Interim striping will be Lump Sum, but not tied to Traffic Control.
- Related to flagging operations, the provisions for Pilot Car Operations will have more details added, including specs for beacons on the pilot cars and the “Pilot Car – Follow Me” sign. The requirements for radios for flaggers will be re-written to require hand-held units such that we eliminate the usage of truck-radios and having a trucked parked next to the flagger.
- Several work zone operations, such as rumble stripe grinding, has sparked arguments as to the proper TTC layout to be used in the field. The Special Provisions will need to designate the proper layout for various operations.
- Traffic Control Supervisor has been over-used and miss-used on various projects. The optional language will be removed from the boilerplate and Districts will need to request the use of a TCS prior to adding the language. The duties will need to be defined properly before inclusion in the project provisions.
- Boilerplate for TMA requirements will be added. We wish to stress that several operations could be improved with TMA usage besides pavement striping.

Training:

- Leigh Kriewall reported that the total attendance for all Work Zone Training courses is 2273 people. This includes courses given by OCIC, Maintenance, Mike Leaf, and Metro. The courses are for flagger training, flagger trainer-training, traffic control supervisor, field manual courses, and traffic control overview. Despite the amount of training given, it is suspected that some workers still may have inadequate levels of training. It was suggested that training plans be developed for each position on a construction project. Tom Ravn asked whether the Inspector Academy needs to be restored.

Speakers Bureau:

- Leigh Kriewall reported that she had a Speakers Bureau booth at both the Spring Maintenance Expo and at the TZD Conference in Rochester. The Office of Construction is looking for another office to take the lead in the program. The Office of Communications would be the best fit, but a technical advisory group should still have input on the issues and information given out.
- Judy Jacobs in Baxter is restarting the Speakers Bureau in D-3 and has received interest from 20 employees. D-6 and D-2 have been conducting presentations. The Speakers Bureau provides Mn/DOT an opportunity to meet with the public and give out valuable safety information.

ACTION ITEM: Steve Lund will ask Bob Winter if he thinks the Speaker’s Bureau should be elevated to a higher level – perhaps Commissioner’s staff – because of the new emphasis on safety, innovation, transparency, and rebuilding trust with the public.

Traffic Engineering:

Intelligent Work Zone (IWZ):

- Marv Sohlo reported that the “IWZ Seeds Program” has received requests for only 1 project for FY 2009. The project is in Detroit Lakes on the I-94 near Moorhead. The IWZ system is anticipated to be a “Travel Delay Time” system with the possibility of adding a “Stopped Traffic” warning system.

- Funding has also been requested for the purchase of Dynamic Speed Display (DSD) signs for several districts, as well as some other requests for TTC equipment which may be approved.

TEO Work Zone Safety Committee:

Marv reported that the TEO WZSC met in August and the following topics were discussed:

- **LATE MERGE:** Guidance for Late Merge signing was needed for future projects. D-6 has 2 projects in 2009 and more in following years where the static late merge signage should work great. The committee will develop a standard set of static signs to be used uniformly statewide in these conditions. The draft layouts were distributed at the SWZSC meeting for review. The committee discussed the late merge concept and how well it has worked on previous deployments. The following comments were made:
 - Marv said static signing with the right message should prevent “vigilantes” from clogging the dropped lane, because the motorists will learn that is “OK” to use both lanes.
 - Marv explained that the need to use the static signing versus dynamic signing is related to ‘fluctuations’ in traffic volumes more than the actual volume of the roadway. There are generally 3 traffic volume situations which need to be addressed: low volume, intermittent high volume and sustained high volume.
 - The signs for the D-6 projects will tell motorist to “Use Both Lanes During Backups” and to “Take Turns Merging”. These signs will be reviewed and modified in the future if found necessary.
 - Mike Robinson encouraged a statewide push for a standard, either for static signing, or a dynamic system.
 - Jon Jackels and Al Smith re-emphasized that statewide publicity would help, because most drivers think the drop lane drivers are “cheating”. A consensus was that we need more publicity for the late merge concept through driver’s education courses, public awareness campaigns, etc..
 - The late merge has only been used on 2 lane roadways, and we will only actively encourage it on 2 to 1 lane merges. It is assumed that the public will evolve to handle lane closures on multi-lane roadways on their own over time after they learn the new procedure for 2 lanes.

ACTION ITEM: The TEO WZSC will continue to 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.

- **QUEUE ESTIMATION:** Guidance is needed for determining the proper location for the advance warning signage such that the first sign is before the queue backup. It was pointed out that “late merge” will not relieve “backup” accidents, but in order to properly sign for late merge, we will be placing warning signs much farther in advance of the work zone and that may provide some warning to motorists that they may find stopped traffic ahead. A draft chart for estimating queue length was provided to the committee for review.
- **BUSINESS SIGNING:** The committee has developed new language for Chapter 8 of the TEM on Business Signing in Work Zones. The new language still needs approval from the TEO Executive Committee, but was distributed to the SWZSC for review.

- **MOVE OVER LAW:** Mn/DOT will be replacing existing signs and adding new sign locations with the new message “State Law – Move Over for Stopped Emergency & Maintenance Vehicles”. There will be a total of 23 sign locations statewide.

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.

District Feedback Meetings:

- Jon Jackels reported that 4 districts were visited during the summer of 2008. These were the Districts of Duluth, Rochester, Detroit Lakes and Baxter. These meetings gave us opportunity to explain the WZ Policy to the design, construction and maintenance staff. Jon presented a list of BEST PRACTISES that have been collected from the four districts. The list was distributed to the SWZSC for review along with a list of issues that need to be addressed. The meetings will continue in 2009 and we hope to visit the remaining 4 districts.

ACTION ITEM: Jon Jackels should prepare a presentation for the Districts and Locals to familiarize them with the new policy. Perhaps the presentation will be similar to the one given by the WZ Policy Feedback Discussion Team during the feedback meetings.

ACTION ITEM: Following the District Feedback meetings the Team will reevaluate the proper course of action for further training and policy development.

Traffic Technician Meeting/Conference:

- Among the topics discussed at the district visits, the concept of a Traffic Technician Meeting/Conference was suggested. The SWZSC approved the concept which would improve the training opportunities for our traffic engineering staff within the districts. The meeting/conference would give the technicians involved with a variety of traffic related issues, an opportunity to learn about new policies, standards, techniques, and tools, and to meet with their counterparts in other districts and build a working relationship with each other. It was suggested that local agencies might also be involved in the meeting/conference.

ACTION ITEM: The TEO WZSC will work on coordinating the meeting conference and developing a list of possible topics that may be addressed.

**Next SWZSC Meeting:
March 16, 2008 in Fargo North Dakota
A meeting notice will be sent out in the near future.**

ACTION ITEM: The SWZSC Coordinator, Jon Jackels, will be following up with each action item and providing a monthly status report to the Executive 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 – Oct 28, 2008

	name:	phone:	present:
Co-CHAIRS:	Mike Robinson (Duluth - Director)	218-725-2704	X
	Sue Groth (OTST - Director)	651-234-7004	X
EXEC. COMM.:	Bernie Arseneau (Division Director)	651-366-4838	<input type="checkbox"/>
	Mike Barnes (Division Director)	651-366-4825	<input type="checkbox"/>
	Robert Winter (Division Director)	651-366-4810	<input type="checkbox"/>
	Tom Ravn (OCIC - Director)	651-366-4228	X
	Steve Lund (Maint - Director)	651-366-3566	X
	Rick Kjonass (SALT - Asst Director)	651-366-3802	X
Committee Coordinator:	Jon Jackels (Mn/DOT/OTSO/WZ)	651-234-7377	X
EXTERNAL PARTNERS:			
Enforcement:	Major Al Smith (DPS – State Patrol)	651-201-7109	X
FHWA:	vacant (FHWA)		<input type="checkbox"/>
County:	Rick West (Otertail County)	218-998-8470	X
Municipal:	Gary Shannon (Rochester)	507-328-2430	<input type="checkbox"/>
TTC Services:	Jay Blanchard (NCATSSA - Safety Signs)	952-469-6700	<input type="checkbox"/>
	Ken Russell (NCATSSA - 3D Specialties)	701-293-8599	<input type="checkbox"/>
	Eric Johnson (Traffic Technologies)	612-363-7475	<input type="checkbox"/>
	John Story (Traffic Technologies)	612-770-9151	X
	Tim Lewis (Highway Technologies)	612-521-4200	X
	Mike Granger (Street Smart Rental)	651-653-4648	<input type="checkbox"/>
	Gary Clark (NCATSSA - 3M)	651-592-2062	<input type="checkbox"/>
	Fred Snyder (SignCAD)	952-544-9559	<input type="checkbox"/>
LTAP:	Jim Grothaus (LTAP)	612-625-8373	<input type="checkbox"/>
Consultants:	Larry McKenzie (URS)	612-373-6315	X
	Gary Thompson (URS)	612-345-2643	<input type="checkbox"/>
AGC:	Frank Weiss (Shafer Contracting)	651-257-5019	<input type="checkbox"/>
INTERNAL PARTNERS:			
Construction:			
	Speaker Bureau Leigh Kreiwall (OCIC)	651-366-4217	X
	Special Prov. Craig Mittelstadt (OCIC)	651-366-4222	X
	Resident Eng Steve Kordosky (Const/Metro)	651-366-4302	<input type="checkbox"/>
	Resident Eng vacant (Const/Outstate)		<input type="checkbox"/>
Maintenance:	Curt Gobeli (Maintenance)	651-366-3549	<input type="checkbox"/>
	Training Ken Nelson (Mn/DOT/Maint)	651-366-3568	X
	Metro Maint Sue Lorentz (Maint/Metro)	651-775-0309	X
	Outstate Maint Randy Reznicek (Maint/D3)	320-223-6568	X
	Permits Steven Maack (Permits/D4)	218-846-7949	<input type="checkbox"/>
Public Affairs:	Kevin Gutknecht (OPA)	651-366-4264	<input type="checkbox"/>
	District Judy Melander (Comm/Metro)	651-234-7505	X
PCMG	Mark Waisanen (Design/D4)	218-846-3606	<input type="checkbox"/>
CMG	Mark Panek (CMG/D6)	507-446-5903	X
OMG	John Howard (AME/Metro)	651-234-7904	X
SALT:	Mark Vizecky (Mn/DOT/SALT)	651-366-3839	X
	District Douglas Haeder (SALT/D7)	507-304-6105	X
	District Thomas Behm (SALT/D8)	507-537-2044	<input type="checkbox"/>
Worker Safety:	Todd Haglin (OMCS)	651-366-3079	X
	District Doug Thies (Safety/Metro)	651-366-5199	X
Traffic Engineering:	Marv Sohlo (Mn/DOT/OTSO/WZ)	651-234-7380	X
	District Mike Engh (Traffic/Metro)	651-234-7870	X
	District Kevin Schmidt (Traffic/D3)	218-828-5771	X
	District Jeff Rieder (Traffic/D6)	507-285-7381	X
GUESTS:			
Washington County	Adam Bruening	651-430-4398	X
D-3 Safety	Mark Moehlenbrock	218-828-5713	X
OTST – Pavement Markings	Mitch Bartelt	651-234-7373	X