

Meeting Minutes: Statewide Work Zone Safety Committee

Date: November 20, 2020 10:30 am – 3:30 pm
Chair: Duane Hill- MnDOT D1 District Engineer
Location: Skypeland

Mission, Purpose, & Meeting Methods

- **Mission** – The SWWZSC will influence the actions of those involved with work zones through the information that is shared through the innovations and best practices that are identified so that we achieve safer work zones and fewer fatal and life changing crashes.
- **Purpose** to provide a forum for
 - Identifying work zone safety problems, safety areas, and help set priorities
 - Brainstorming ideas
 - Recommending direction to our functional offices and committees
- **Meeting Methods**
 - Committee, partner, and group reports with discussion. Representatives will give
 - Status report on Action Items (from previous meeting if assigned)
 - Update report on work zone safety issues

Welcome/Introductions (10:30-10:40)

- **Duane Hill – District Engineer-D1**
 - **Introductions/Mic check**
 - **Previous Action Items:**
 - Portable Rumble Strips – pay item and special provision have been added
 - One stop shop work zone training – Work group is working on a comprehensive training program.

Committee Reports (10:40-11:40)

- **Executive Committee:** Michelle Moser, OTE
- **Statewide WZ Training Initiative**
 - Phase I is completed and provided insight and direction on how to develop a robust training program that addresses the needs of all public agencies and private companies that work on or near the roadway in Minnesota.
 - Phases II and III will work on needed modifications to existing curriculum and develop additional training based on what was found out in Phase I.

- Before identifying funds to conduct the next phase, MnDOT leadership wants to compare the effort required:
 - for MnDOT to complete the training through a consultant contract, conduct the training and maintain course materials for each of the course listed in the training matrix in the phase I report
vs
 - partnering with third party (e.g. ATSSA) to deliver the training

- *WZ training Needs Assessment Task Force*
 - Based on this request, the **WZ Training Needs Assessment Task Force** was created to determine who from MnDOT would need what specific training course(s) as identified in Phase I.
 - Has met a few times and information is being summarized by Ken Johnson of OTE, to be reviewed by Mark Vizecky of State Aid.

- *Minnesota Work Zone Safety and Mobility Policy*
 - At the last meeting, OTE was pursuing the direction of converting the Tech Memo into a MnDOT Policy. After further research and reflection, OTE will continue this as a Tech Memo combined with elements being included in the TPDP.

- *Status of PE Signatures Requirement for TTC plans*
 - Found on [MnDOT Traffic Engineering TTC Manuals and Guidelines](#)
 - [Requirements for Temporary Traffic Control Plans Submitted to MnDOT](#)
 - At the last couple of Executive Committee meetings, it was clearly stated that MnDOT let projects need to include a TTC Plan. Industry has mentioned that MnDOT projects have gotten better at including TTC Plans. There have been a couple of exceptions, but these have been discussed at the SWWZS Liaison Group Meetings.
 - Industry is a little frustrated that local agencies are still not typically letting projects with an included TTC plan, but MnDOT has been clear that we set our policy for MnDOT projects and are not telling local agencies what they should be doing for their roads.

- *Discuss major WZ elements from:*
 - OTE & TEO
 - Crashworthiness of TTC devices
 - Michelle has been working on problem statements for the pooled funds. Type III barricade with sign mounted has been funded for testing by TTI. Problem statement will be developed for non-proprietary portable sign stands.
 - In service performance of Type III barricades that are NCHRP 350 compliant
 - Maintenance - what can be purchased now?
 - Will test Type III with plastic panels. Concerns are durability and usability of plastic panels, handling and storage, how to mount signs.
 - Steve Blaufuss has developed a list of MASH compliant devices
 - Procurement process needs to be looked into for purchasing MASH compliant devices
 - Developing new standard plans (overall OTE effort)
 - Automated Speed Enforcement

- Brian is working with Nancy about meeting with DPS to pull together a group between DOT and DPS to have a common stance. In general, staff within MnDOT are somewhat supportive.
 - Proposed legislation is to do a pilot.
 - Big effort - from issuing a ticket to going through the judicial process.
- APL/QPL update effort (including DF(YS) signs)
- IWZ Toolbox Update and Draft Special Provisions - published
- TMA Flagger - close to a solicitation for someone to construct 2 TMA Flaggers. Two companies are known that could construct.
- Office of Maintenance
 - Intrusion module for eSafe - under final development
 - There is a research project that is developing a mobile app
 - Expected to be included in Kathy's training
 - Likely develop an e-learning module to tell workers how to use it
 - Adopt a Highway Volunteer Safety
 - AAH Volunteer Guidance is being updated
 - Developed consistent layout to follow
 - Determining how to deploy signs
 - Leading candidate is a foldup sign permanently attached to existing AAH signs
 - AAH coordinator should work with District Traffic Engineers to determine if any road segments should not be available for AAH due to safety concerns
 - Extraordinary Enforcement
 - Agreement for FY 21 is in place for districts to get dedicated Extraordinary Enforcement on specific maintenance projects
 - Requests come up intermittently
 - Added benefit for districts - if they get to a situation where enforcement needs to be out there, this agreement allows a method to pay enforcement appropriately
 - Working on e-learning modules related to dealing with unsheltered
 - With Kristie Billiar for ways to work with unsheltered people safely
- TSMO
 - ATMA (Autonomous Truck Mounted Attenuator)
 - CAV-X has been leading the charge on the pilot
 - Pooled fund effort between MnDOT and other states
 - Travel Alert System - being led by Mike Kronzer
 - Using current AVL data to engage CMS signs to let drivers know that workers were present
- **Traffic Engineering Organization Temporary Traffic Control (TEO TTC) Committee:** Jeff Morey & Michelle Moser, both of OTE
 - Adopt a Highway Traffic Control and Segment Modification
 - Group is working on options to add work zone sign to AAH signs. Possible permanent foldable sign and mechanism. Funding still needs to be determined.

- Segments may need to be modified. 20 years since last segment review. Review ADT and compare to standards.
- IWZ Toolbox and Special Provision Update-published on [OTE website](#)
- Updated TTC Design Tools
 - See <http://www.dot.state.mn.us/trafficeng/workzone/ttcdestools.html>
 - Changed names of some details-LTTA matched MUTCD language
 - Alternate Pedestrian Route (APR) and Temporary Pedestrian Access Route (TPAR) Devices Standard Plans coming soon
 - Updated 8000(K) Standard Plate coming soon. Revised notes, updated MASH language, Surface mount delineators/tubular markers combined into only Tubular Markers to match MUTCD.
 - Portable/Temporary Rumble Strips-details, special provisions, pay items updated.
 - DSD (DF(YS)) Requirements, APL, details are being updated.
 - Color changes: no more black on white. Black on orange for work zones.
- **Resident Engineers Work Zone Safety Advisory Committee:** Troy Strassburg, District 2 Construction
 - Eventually will be new person in this role.
 - Portable rumble strips were discussed a lot this year. D2 has used a lot in mobile and static applications and feel they work really well. Good to have details and special provisions.
- **Time and Traffic Special Provisions Committee:** Ted Ulven, OCIC
 - Met early October. Attendance down. Not a lot of hot topics. Flagging items were moved to Resident Engineer committee: Pilot car drivers need to be trained as flaggers. Added prompt for engineer to detail major crossroads that need flaggers so that its easier to determine number of flaggers needed.
- **Statewide Maintenance Work Zone Safety Committee:** Steve Blaufuss, OM
 - Haven't met in some time to cut back on duplicate topics. Next meeting is on 12/1/20.
 - Possible statewide contract development for cat 1 devices (cones, barrels, other lightweight TTC devices).
 - Info sharing: how is info being shared beyond just the meeting, and ensuring info is shared.
 - Incident response task force-effort with D7. Need to quickly respond to an incident or accident as traffic control-create a "kit" or list of what is needed that can be quickly deployed.

- **SWWZSC Industry Liaison Group**
 - Reed Liedle, NLCATSSA
 - Michelle did a good job getting involved with this group. Continue to discuss training clearing house. Industry needs this.
 - Worker present speed signage. Discussing MASH compliant option for covering devices. Thinking shift toward electronic speed signs.
 - Metro projects: lane shifts/chutes utilizing attenuators that get hit frequently. Trying to improve devices and warning systems. Possible options are pavement marking shields and temporary overhead sign structures.
 - ATTSA How To has been canceled again due to COVID. National Expo will be online. Agency registration is \$49 for training.
 - Michelle Moser, OTE
 - 4 years (end of 2024) for MASH implementation of WZ devices. Lots of existing equipment, contractors want to maximize investment.
 - Consultant update: Designers are looking for guidance related to winter suspension
 - TTC Contractors update: Have discussed recent technology to see if MnDOT would like to implement on some projects.
 - AGC and MAPA: Provided COVID response updates and legislative updates.

Presentation and Discussion

- **COVID Traffic Data Trends**
Derek Leuer, MnDOT OTE

Lunch (noon-1:00)

External Partner Reports (1:00 - 2:00)

- **Law Enforcement:** Major Sean Meagher, State Patrol
 - Derek's presentation mirrors what law enforcement is seeing. Speed is kind of out of control.
- **Minnesota Local Technical Assistance Program:** Kathy Shaefer, LTAP
 - 9-10 modules of field manual training have been recorded-all are on LTAP website for free.
 - New virtual real time training sessions will be added this winter.

- Attendance is recorded through registration with LTAP-multiple people on crew can attend and be recorded

- **Engineering Consultants:** Jon Jackels, SRF; Jeff Hilden, TKDA
 - Jon: no update.
 - Jeff: No MOT specific update.
 - 13 mile reclaim outstate, significant shoulder windeing, some segs of recon, amish traffic, geogrid and fabric overlap, “supercharged” innovative reclaim project. MOT will be challenging and contractor will need to maintain local traffic. Some MnDOT districts (D1,D2) may have good experience to share on that type of project.

- **Northland Chapter of ATSSA:** Reed Leidle, Jay Blanchard, Ken Russell
 - National ATSSA will be virtual and low cost.
 - How-To has been cancelled.
 - MnDOT will be using TCT and TCS ATSSA trainings this winter.
 - MnDOT OTE will be working with ATSSA on MASH TTC devices and options, timelines.
 - Have something like 10K signs. 50% of inventory at shop now. Huge investment to change to new structures. End date of useful life needs to be defined. Establish difference in application between 6” vs 4” drum stripe. Contractors need to be able to determine how manage inventory.

- **Contractors**
 - Doug Swenson, AGC; Woody Bear, Shafer; Brad Drews, Egan
 - No updates

- **TTC Providers**
 - Matt Kregel, Street Smart Rental; Eric Johnson, Salander Tech; Reed Leidle, Safety Signs; Tim Lewis, Warning Lites of MN
 - Industry needs to self-police device quality better
 - PE signatures on TTC plans are happening. Costs and timeline are catching contractors a bit off guard.

- **FHWA**
 - Jason Spilak, FHWA
 - No update

- **Counties**
 - Wayne Sandberg, Washington County; Adam Bruening, Washington County; Vic Lund, St. Louis County
 - No update
- **Municipal**
 - James Koslucher, City of Fridley
 - No update
- **Utilities**
 - Dale Anderson, Center Point Energy; David Haedtke, Century Link
 - No update

Presentation & Discussion

- **Speed Management Strategies in Work Zones**
Shauna Hallmark, Iowa State ITRNS

MnDOT Internal Partners (2:30-3:30)

- **Management Teams**
 - PCMG & CMG – Mark Panek
 - Noticed increases speeds on the system this summer. Work over the winter to make sure that speeds decrease entering the work zones. A good reverse curve works well, like that on 494.
 - OMG – Sue Lodahl
 - Tech memo on vehicle lights in process of being updated. Ryan Sodd and Lisa Yeager from central shop are working on that.
 - Traffic Control Truck had everything needed to set up work zone quickly. Put together for incident response. Anything innovative like that out there today? Also PSA “meet the driver” on facebook-maybe “meet the flagger/worker” in the summer for work zones? Anything to highlight the importance of workers and work zones.
 - Metro – automated cone setting, but going away from those and utilizing truck like the ATMA traffic control truck.

- **Transportation Systems Management Operations:** TSMO –Jed Falgren
 - 34 implementation ideas-7 are around WZ, 6 more touch on WZ
 - Coordination of WZ across districts and routes. I-94 is a great example with 3 projects along the corridor, staying connected, using same technologies
 - ITS/ IWZ use is another-queue detection and travel time
 - Traveler info and sharing of data
 - Snow plows will light up message board if they are moving slower than traffic I35 S is test corridor
 - Cell phone app that has customized alert when approaching snow plows will also be tested
 - 511 data/updates manually input initially by State Patrol, then by maintenance, now will be automated. Testing happening now. Using data from RWIS.

- **Construction**
 - OCIC – Tom Ravn
 - COVID affected how projects were done and some were done more quickly, or did not need elements like widening etc due to decreased traffic conditions, etc.
 - ASE possibly used in the future in MN. So far extraordinary enforcement has been good, but it isn't as effective as it used to be. Also talking about other options-HEAT, etc.
 - Trying to come up with low cost daefy solutions, such as rumble strips, and get drawings, specs and get industry ready
 - Solutions for chutes on projects, such as temp OH signs or pavement markings
 - Training/WZSAP – Jackie Brown
 - TCT and TCS will be offered through ATSSA virtually in 2021
 - TCS recertification will be in e-learning module
 - Flagger training will be moving to online virtual training, still in conjunction with MAPA
 - Flagger trainer recertification is online
 - Districts – Troy Strassburg
 - Was on Mathewitz job and temporary OH signs really help.

- **Maintenance**
 - OM – Bob Vasek
 - AAH signs-need to provide more warning as it is a work zone. Permanent vs. roll-up is still being discussed, costs and funding need to be determined.
 - Enforcement agreement for maintenance with State Patrol.

- E-safe system has an added module for intrusions. Hope to get better idea of where and why intrusions are happening. U of MN is working on a mobile app.
- Working with other groups on more innovative ideas fro WZ safety.
- 4 striper (mobile op) rear end hits this year-are these rear end crashes increasing across the board?
- Training – Kathy Schaefer
 - Just did field manual/ flagging classes this last week. Most are on demand, so no more are scheduled at this time.
 - LTAP training-under CTAP on LTAP site you can find the online modules
- Districts – Sheila Johnson
 - Lower volumes have helped metro maintenance get more stuff done during the day.
 - Assistance with civil unrest took up some time in May-June.
 - Metro has hired outreach group, peoples inc, putting together training modules for workers that may encounter people that are unsheltered.
- **Communications**
 - Statewide – JP Gillach
 - One of the challenges in communications is knowing the issues that they could do communication/education on from their office. If you have ideas, trends, etc. connect with them and they can start to work on ways to get info out to public.
 - Plug for new safety recognition program-of there is anything that is increasing safety out there let him know.
 - Statewide action team for safety-maybe team up with TZD to get message out. (Brian/Rashmi)
- **State Aid for Local Transportation**
 - Statewide – Rashmi Brewer
 - Rashmi will provide education and outreach along with local perspective on work zone safety
 - Districts – Kelvin Howieson
 - To add to communications topic: D3 had put together a work place safety video that interviewed people that were in incidents, one of which was rear end. Maintenance worker had personal story as part of that crash. Those types of stories could really make an impact.
- **Worker Safety**
 - Statewide – Todd Haglin

- Phone app to document WZ intrusions-maybe next meeting demo. U of MN has met with field staff to get feedback.
- **CAV-X**
 - Cathy Huebsch
 - WZ data initiative: Finished Phase 1-utilizing technology to connect work zones, and applied for grant in August. Once we know whether we received we will move forward with phase 2.
 - TH52 research corridor: year long research project with different stakeholders to look at technologies to use in WZ on projects that are on that corridor.
- **Traffic Engineering**
 - OTE – Brian Sorenson
 - ASE- We are preparing for it to come up again this legislative session
 - Can be very political topic.
 - Citizens for WZ safety would like pilot project. They have lobbied and will continue to.
 - Study was done in 2017-stakeholder, non-enforcement, enforcement, government, etc.
 - Public backlash can be directed toward law enforcement agencies
 - Major increase in volume of citations-increase in resources needed
 - Perceived constitutional issues-data use, privacy
 - Perception that it is done to increase revenue, rather than increase safety
 - Would take picture of license plate, which is already technology used by bus drivers etc. This is not the type of citation that would go on record (petty misdemeanor), it is like a parking ticket.
 - Goal is safe speeds, safety of workers.
 - Other states-Maryland, Pennsylvania have used or are starting to use ASE so we are getting information from them that shows promise in speed reductions, but not showing clear data for reducing fatal/serious injury crashes.
 - Presented data from the I-94 corridor speed study.
 - If not ASE-what else can we do to decrease speeds?
 - Camera assisted system for enforcement downstream
 - Full closures, nighttime work, reduced lane widths, and other solutions
 - [2020-2024 Strategic Highway Safety Plan](#) was released
 - Putting together action teams in different focus areas. If interested in being on a team, let Brian know.

- Districts – Ron Rauchle, Morris Luke, Jeff Rieder
 - Morrie: When TTC contractors supply signs for projects to make sure they let them know that signs should be removed when the work zone is not active.
 - Accountability and enforcement issue, shared between contractor and road authority.
 - Someone responsible for a weekend, or day-end drive through? Metro tries to do this.
 - Is there a contractual obligation to do this? Yes on construction projects.
 - **ACTION: Form task force to look at this issue.**
 - See something/say something approach-people need to call
 - Temp OH signs are great idea. Spanning many lanes and needing large sign may be an issue in Metro.
 - **ACTION: Form work group to work on design for wider lane configurations.**
 - Closure coordination committee working to get more work, including maintenance work, done during weekend full closures. Maintenance would like to do full corridor closures for just maintenance activities.

Adjourn (3:30)