**TRAFFIC CONTROL TECHNICAL COMMITTEE (TC2) MEETING MINUTES**

**9:00am – 10:15am**

**August 25, 2021**

**TEAMS MEETING**

1. **Introductions:**
	1. **Representatives confirmed from the following:**
* **WisDOT**
* **Century Fence**
* **Mega Rental**
* **Safemark**
* **Barricade Flasher Service**
* **Crowley Construction**
* **Others?**
1. **Topics:**
	1. **Marking:**
		1. **Liquid Material Items & Supply Chain Flow Issues:**
			1. (WisDOT) Supply shortages ongoing since March 2021, WisDOT has been having regular check-ins with Ennis Flint the state’s waterborne contract. Still at 4-6-week lead times on waterborne products for our county contracts.
			2. (WisDOT) 3M has also submitted notices regarding tape shortages.
		2. **Provisional Temporary Approval for Pavement Marking Materials:**
			1. (WisDOT) If contractors have suitable replacements for TEMPORARY MARKINGS in improvement projects, they may send a request to use it to Linette Rizos at WisDOT for review and approval of provisional use. All permanent markings still need to be on WisDOT’s current APL.
				1. If there are other states that have the temporary product on their APLs, please note that on the request – WisDOT will follow up with the respective state to get their feedback on the product and it may help speed along the approval process if feedback is favorable.
			2. (WisDOT) WisDOT has been in contact with project staff and have been advising that they may need to work with contractors regarding material shortages regarding logistics, timeline, and other product options.
			3. (WisDOT) Contrast tape, both temporary and black mark-out tape, is nearly impossible to get and the shortage is expected to last throughout the 2021 construction season. May need to replace temporary contrast tape with standard tape – which should be more readily available.
				1. (Century Fence) Seeing waterborne paint with 6-8-week lead times (longer than the states 4-6-week lead times), epoxy is at short supply. What are the contingencies if materials (paint, epoxy, and/or tape) is not available yet needed to complete projects?

(WisDOT) Guidance is to work with project engineers on options, but one thought is to install temporary materials until spring if available (although WisDOT understands those are on short supply as well).

(Mega Rentals) The issue is there’s shortages on all materials, and projects/contractors/states are working against each other as “more available” products are being used in replace of what should be other temporary/permanent products, to the “more available” material supplies are stressed as well.

(WisDOT) Doing everything we can to find solutions.

* + - 1. (Mega Rentals) Noted they submitted a request for a temporary material to Linette the morning of 8/25 – Linette to review
			2. (Century Fence) Will WisDOT consider deferring their paint contracts to contractors so projects can get paint on the roads if needed?
				1. WisDOT will review maintenance operations and will look into options.
			3. (Mega Rentals) Who does WisDOT meet with weekly?
				1. (WisDOT) Meets with Ennis Flint regarding the state’s waterborne procurement contract.
			4. (Mega Rentals) Some concerns:
				1. At the end of the year with the Epoxy shortage, they will not have enough time to paint and install products before the roads need to be open to traffic?
				2. They’re only seeing slow-set materials available, and it will not dry when they must paint at night in colder temperatures before the road needs to be re-opened. What happens if/when they can only get products at the end of the year when the weather cools down?
				3. Based on their experience and what they’re hearing from vendors, two of the major epoxy suppliers are basically out of supply and are not an option.

(WisDOT) Will develop a contingency plan to make sure contractors can get the work done.

(WisDOT) From Project Development’s stance, the more contractors can provide guidance that a shortage is industry-wide, and not a vendor-specific issue, that will help with WisDOT making decisions on alternate products.

(WisDOT) BTO can provide that information regarding industry-wide shortages to BPD as well.

* + 1. **MMA Pilot:**
			1. (WisDOT) WisDOT has installed MMA products in two RAB locations as part of a pilot program: 1.) Contractor installed in NW Region; and 2.) County installed in NE Region
				1. (WisDOT) Both locations installed in late August/early September, and WisDOT has taken initial readings and will monitor the performance over the next year or so.

(WisDOT) Focusing on durability more than retros at this point, the locations where MMA was installed are in high-truck traffic RABS where durability & presence have been issues.

* + - * 1. (WisDOT) Just wanted to give attendees a general FYI that WisDOT is looking at MMA to see if it’s something we want to expand the use of in the future – no plans to install additional MMA at this time until more observations can be made on the pilot locations.
	1. **Signing:**
		1. **EC Film Supply Issues (Slowly Improving):**
			1. (WisDOT) Regarding the EC film shortage, sounds like the supply is starting to rebound. Sounded like it was more of a 3M issue, which is getting better, but Avery did not see any shortages.
		2. **Aluminum Extrusions for Type I Signs:**
			1. (WisDOT) WisDOT is seeing 6-8-month lead times to get extruded aluminum panels. Have been in contact with project staff and advised them to order signs as soon as they can to get a head start.
				1. (WisDOT) In speaking with the two suppliers, sounds like improvement projects are in OK shape to get the signs in for 2021 completion dates.
	2. **Work Zones:**
		1. **Requirements When Installing and Removing Temporary Traffic Control:**
			1. (WisDOT) No requirements established currently, but WisDOT will be developing a standard detail drawing regarding setting up and removing traffic control on Freeways and Expressways (high speed routes)
				1. (WisDOT) For example, do you need a TMA when setting up a lane closure? Based on the Work Zone Field Manual, the answer should be YES.
				2. (WisDOT) Illinois DOT has a standard detail drawing (simplified, may not cover everything)

(Century Fence/Mega Rentals) One initial reaction is that contractors often have many more lane closures in process than counties do, so the question is how do they get enough TMAs cover all the locations if that is the expectation WisDOT will be dictating?

(WisDOT) Looking to expand on guidance for these situations, will start developing drafts in Fall 2021.

* + - 1. **(WisDOT)** **WisDOT is looking for input from industry in developing this standard detail drawing**
				1. **(WisDOT)** **Contractors can email or call Andy Heidtke if they have input**
				2. (Barricade Flasher Services) In the past, WisDOT has not wanted to dictate how to do things (i.e. set up a lane closure) – so what will these requirements do if they are not enforced across contractors and counties?

(WisDOT) We are concerned about dictating this process, but we feel safety will trump those concerns and point to a need to establish process on how to install/remove traffic control.

(WisDOT) There has been a heavy focus on traffic control with the counties the last couple years, but that focus may now switch to contractors to get everyone on the same page. WisDOT wants to establish and enforce standards across all entities that are involved in traffic control.

* + 1. **Findings from the 2021 FHWA Process Review:**
			1. (WisDOT) A process review is done every couple of years between WisDOT and FHWA (the topic in 2021 was Temporary Markings).
				1. (WisDOT) There are several issues brought up on Temporary Markings per year.
				2. (WisDOT) Standard Specs 643 and 649 are planned to be merged (649 will be moved to 643)
				3. (WisDOT) WisDOT has a lot of internal knowledge now after NTPEP test deck.
				4. (WisDOT) Annually, WisDOT spends about $4M on temporary marking and removal costs (improvement program).
				5. **(WisDOT)** **Temporary Marking Issues Identified:**

**Four-Foot Skips:**

Speed, Volume, etc. are not taken into consideration. WisDOT wants to include more guidance and update the standard detail drawing (15c8).

**Lane Closure Markings:**

Application of temporary pavements markings is inconsistent in the SDDs, will look clarify.

**Edgeline Requirements in Work Zones:**

SDD does not require edge lines (i.e. when to install them), does not factor in speed or volume, will look to clarify.

**Early Season Cold Weather:**

No provisions in specs for maintenance markings, WisDOT will work to update and clarify.

Impacts early start projects, such as bridge deck replacements.

**Late Season Cold Weather:**

Maintenance of markings for when a project cannot get permanent markings down until Spring

Sometimes not included in the plans

Looking at clarifying the language in projects for when this may occur.

**Application Rates/Specifications:**

Potential issue with concrete pavement and visibility.

How do we determine drop rates on temporary applications in work zones?

If they will be in place days/weeks/months, need to address application rates – WisDOT to work on updating specifications.

**Lane Shift Markings:**

Need to make sure these markings last to reduce crash potential.

WisDOT will look at updating guidance, factoring in duration of shifts, marking options, pavement, etc. to get better durability.

**CAVs:**

Looking forward, need to develop guidance regarding CAVs – are they focusing on markings or drums in work zones? Not many studies available currently, but something WisDOT is looking at. What we do know is retroreflectivity does help CAVs pick up markings.

**Narrow Pavement Markings:**

This problem has occurred a lot in 2021, even on markings that are intended to last multiple weeks.

One example showed edgelines less than 2” wide.

May be related to the 2021 material shortages as contractors tried to make short supplies last longer, but lines need to be at the full 4” widths (unless otherwise noted).

**Removal of Temporary Markings:**

Temp marking bid items include removal – may be an issue at the end of projects if the contractor that installed them are not be the ones removing them or installing the permanent markings (creates a blended price)?

Regardless, WisDOT intends to keep the bid item language as-is.

**Same Day vs Temporary Marking Confusion:**

All 649 Temp Marking items are same day

646 same day items are separate

**Centerline Rumble Strips – Epoxy Markings:**

Sometimes plans have waterborne for temporary markings in cases where the permanent marking will be epoxy.

Temp marking needs to be epoxy if the permanent marking is epoxy

WisDOT plan checkers are trying to correct any of these discrepancies prior to the LET.

**Removal of Permanent Tape Prior to Milling Operations:**

2022 Spec includes removal of grooved-in permanent tape.

Concern is if a contractor wants to remove all the markings at once (tape, epoxy, etc.).

WisDOT looking to clarify the language.

**Markings Not Removed:**

Saw some examples where markings were not removed as needed, led to confusion in work zones.

**Temporary Crosswalks:**

Will create a standard crosswalk item for work zones, will be two 6” lines.

**Mobilization:**

WisDOT is looking at the stages of pavement marking as part of plan development (i.e. removal, temp install, removal, permanent install, etc.), understand that trucks are not always available and that logistics/timelines needs to be considered.

* + 1. **Work Zone Data Exchange Grant and Smart Arrow Board Update:**
			1. (WisDOT) WisDOT applied for a work zone data grant exchange, which we were awarded. Project will kick off on Sept 1, 2021.
				1. (WisDOT) Project will include developing a data share with third parties (Google Maps, Waze, etc.) and utilizing smart arrow boards with lane closures. Device testing will be taking place Spring 2021 (WisDOT purchased two smart arrow board adaptors).
				2. Looking at incorporating more smart arrow boards in projects going forward to provide a better driver experience through work zones.
	1. **Other Topics:**
		1. **(Crowley Construction) No Passing Zone Locating:**
			1. (Crowley Construction)When roads are being reconstructed, should there be a locating item? They have been asked to re-install the markings the way they were, is that correct?
				1. (WisDOT) WisDOT will be adding guidance in the FDM as to when to include the No Passing Locating item in projects – the item will be included if there is a road re-alignment, shoulder work, etc. that may impact sight distances, but if it’s just a resurfacing project the guidance will be to install the zones as-is.

(WisDOT) WisDOT just completed a 5+ year project to spot all conventional roadways, so unless there is a realignment, shoulder work or a safety issue, the zones should be put back in as they were (assuming the zones were correctly painted to match the most recent spotting log; if not, then they should be painted to match the most recent spotting log and not necessarily re-installed as they were).

* + - 1. (WisDOT) If contractors have questions on whether the roadway needs to be re-marked or spot checked (or if they question the accuracy of a passing zone), they should notify and work with project staff. In plan development, project designers should be working with regional staff to make sure the road does not have safety issues that need to be addressed regarding passing zones.
		1. **(Crowley Construction) Water Blasting:**
			1. (WisDOT) Contractors should work with project staff if there are questions/clarifications regarding water blast removals, and if project staff have any questions, they can follow up with BTO (Matt Rauch and/or Jeannie Silver).
		2. **Temporary Removal Items:**
			1. (WisDOT) WisDOT looking at the language/spec regarding when to include removal items in work zones.