



Midwest Bridge Preservation Partnership

Agenda – Monthly Teleconference

Tuesday December 1st, 2020

1:00 – 2:00 PM CST

• **Roll Call –**

Name	Organization		Name	Organization	
Darlene Lane	NCPP	X	Javier Romero	Cook County, IL	
Ed Welch	NCPP	X	Adam Post	Indiana DOT	X
John Hooks	NCPP	X	Scott Neubauer	Iowa DOT	X
Chris Keegan	NCPP	X	Joe Stanisz	Iowa DOT	
Bill Oliva (<i>Chair</i>)	Wisconsin DOT	X	Don Whisler	Kansas DOT	X
Sarah Sondag (<i>Vice Chair</i>)	Minnesota DOT	X	John Culbertson	Kansas DOT	X
James Leaden (<i>Secretary</i>)	Kansas DOT	X	Joe Molinaro	Missouri DOT	
Jeremy Hunter (<i>Past Chair</i>)	Indiana DOT		Jacob Creisher	Michigan DOT	
Sarah Wilson (<i>Director</i>)	Illinois DOT	X	Jason DeRuyver	Michigan DOT	X
Josh Rogers (<i>Director</i>)	Kentucky TC	X	Paul Pilarski	Minnesota DOT	X
Glenn Washer (<i>Director</i>)	U of Missouri	X	Kent Miller	Nebraska DOT	X
Patrick Conner (<i>Director</i>)	Indiana LTAP		Mark Traynowicz	Nebraska DOT	
Nick Graziani (<i>Director</i>)	Watson Bowman	X	Nancy Huether	North Dakota DOT	X
Tom Donnelly (<i>Vice Chair Non-State Agency</i>)	Transpo	X	Barry Kinnischtzke	North Dakota DOT	X
John Bunderson (<i>Social Media WG</i>)	Metal Fatigue Solutions		Mike Brokaw	Ohio DOT	
Scott Stotlemeyer (<i>Systematic Preventive Maintenance WG</i>)	FHWA		Bradley Noll	Ohio DOT	
Brandon Boatman (<i>Preservation Matrix WG</i>)	Michigan DOT		Walt Peters	Oklahoma DOT	X
Fouad Jaber (<i>Deterioration Modeling WG</i>)	Nebraska DOT	X	Todd Thompson	South Dakota DOT	
Tim Anderson (<i>Director</i>)	FHWA	X	David Coley	South Dakota DOT	X
Larry O'Donnell	FHWA		Richard Marz	Wisconsin DOT	
Raj Ailaney	FHWA		Tim Woolery	Adv. Chem. Tech. Inc.	X
Dick Dunne	GPI	X	Lorella Angelini	Angelini Consulting	
David Heilman	Jet Filter System		Pat Martens	Bridge Preservation and Inspection Svcs.	X
Greg Heilman	Jet Filter System	X	Travis Kinney		
Ed Liberati		X	Paul Jensen	Jensen Engr & Cnslt	X
Pete White		X	Dave Juntunen	Kercher Group	X
Derrick Castle	Sherwin Williams Co.		Drew Storey	Kercher Group	X
LJ		X	Kyle Bartfay	Phoscrete Concretes	X
Michael Nelson		X	Mike Stroia		X
Kristen Leier		X	Brian Mintz	Phoscrete Concretes	
Blake Liberati		X	David Brodowski	True Tech	
Kevin Stumpf	Uretek U.S.A.		Diana Hellman		X
Richard Huza		X	Allen Scarborough		X
Mark Swiderski			Dr. David Darwin		X

- **Approval of Minutes – November 10th, 2020 Monthly Meeting**

Bill went over the meeting minutes and asked if there were any needs for changes, corrections, or revisions. No changes were mentioned. Drew Storey made a motion to approve the meeting minutes from the November 10th, 2020 teleconference. John Hooks seconded the motion. The motion passed, and the minutes were approved. Bill Oliva thanked our FHWA partners for the InfoBridge presentation from last month's teleconference.

- **Assistance with Meeting Minutes – Outreach to Officers and Directors**

During the November MWBPP teleconference, it was announced that the Midwest Partnership has decided to hold-off from electing and advancing Officers and nominating Directors until the face-to-face meeting scheduled in September 2021. Part of the motion that passed recognized a need to ease the effort and time investment of the Secretary/Treasurer by sharing 50% of the Meeting Minutes preparation duties with other Officer /Director volunteers leading up to the fall, 2021 face-to-face annual meeting. The following list details those who will take-on the duties of preparing MWBPP Meeting Minutes for the upcoming monthly teleconferences.

Tuesday December 1st, 2020	Jim Leaden
Tuesday January 5, 2021	Jim Leaden
Tuesday February 2nd, 2021	Jim Leaden
Tuesday March 2nd, 2021	Sarah Sondag
Tuesday April 6th, 2021	Sarah Wilson
Tuesday May 4th, 2021	Sarah Sondag
Tuesday June 1st, 2021	Drew Storey
Tuesday July 6th, 2021	Jim Leaden
Tuesday August 3rd, 2021	Drew Storey
Tuesday September 7th, 2021	Jim Leaden

Great appreciation goes out to those who volunteered.

- **2020 MWBPP Annual Meeting (TBD) – John Hooks -**

- *Quick update on all four 2021 Annual Meetings (so far, MWBPP still is a go for Sep 9 – 11).*
- *Update on the 2020 TSP2 webinar plans including schedule for the 8 events (4 webinars, 4 panel sessions, the topics and confirmed presentations, confirmed presenters and panel members plus a discussion of how to reach the local agencies in each region's states with the announcement of the schedule.*

<u>Virtual Event Type</u>	<u>Topic</u>	<u>Event Date</u>	<u>Event Start Time</u>	<u>Moderator</u>
Webinar	Deck Preservation using Overlays	24-Sep	1:30 PM	Bill Oliva, Wisconsin DOT
Panel Session	Preservation by Eliminating of Bridge Joints	1-Oct	1:30 PM	Dick Dunne, GPI
Panel Session	Impact of COVID-19 & Budget Restrictions on Bridge Inspection & Bridge Preservation Programs	15-Oct	1:30 PM	Dan Muller
Panel Session	Preventative Bridge Maintenance/On-Demand Contracts	29-Oct	1:30 PM	Jeff Pouliotte, Florida DOT
Webinar	Local Agency Bridge Preservation	5-Nov	1:30 PM	Pat Connor, Purdue University
Webinar	Corrosion Protection for Steel Bridges	19-Nov	1:30 PM	Mike Hill, Arkansas DOT
Webinar	Steel Bridge Repairs	3-Dec	1:30 PM	Rod Thornton, MD SHA
Panel Session	Deck Preservation using Sealers	10-Dec	1:30 PM	Tom Donnelly, Transpo

Recordings are / will be available for viewing @

<http://bit.ly/2020BridgeWebinars>

<https://tsp2bridge.pavementpreservation.org/2020-aashto-tsp%c2%b72-bridge-webinar-series/>

John started off by noting that 6 of the 8 virtual events are now completed. The “Steel Bridge Repairs” webinar is scheduled for this Thursday December 3rd, 2020. The “Deck Preservation Using Sealers” panel session moderated by Tom Donnelly is scheduled for December 10th, 2020. Tom and Joe Molinaro of the Missouri DOT will make an opening presentation on the repair of an I-70 bridge using a high molecular weight methacrylate. Following that we will have panel remarks by 4 representatives DOTs (including Sarah Sondag of MnDOT) and then the usual question and answer session. That will wrap-up the entire schedule of the virtual events for 2020.

Videos of the first 5 virtual events of 2020 are uploaded on the attached link above. The 6th event will be up shortly (it takes about 2 weeks from the time of the event to get uploaded to the link).

Bill Oliva noted that when he followed-up with his DOT on their annual TSP2 contributions that these virtual events are good examples of why all our DOTs should continue to fund this program. Even through the pandemic, TSP2 and the 4 Partnerships provided meaningful, quality events that were made available to an even broader range of attendees.

John continued by stating that hope for the 2021 Annual Meetings for the 4 different Partnerships is starting to evolve. From a survey of all of the DOTs it's becoming more apparent that travel will not be approved through the Spring of 2021. As a result, TSP2 has decided to move the Annual Meetings originally scheduled for the Spring of 2021 to the Fall of 2021. Darlene Lane is hard at work on finding dates for the SEBPP Annual Meeting, which is looking like taking place the first week of November, and the WBPP Annual Meeting, which is looking like taking place the first week of December.

The Midwest BPP is still planning on having the Annual (face-to-face) Meeting in Lexington, KY in Late September 2021. In anticipation of this, the planning committee will reconvene on January 20th, 2021 to move forward with prep work for the 2021 MWBPP Annual Meeting. Preparations already tabled from the planning of the 2020 Annual Meeting will be used as a starting point for the 2021 Annual Meeting.

- **MWBPP Deterioration Modeling Working Group (Bill Oliva)**

- *Reoccurring monthly meeting Set up – Third Friday of each month at 9:00 AM CST Next is Friday December 18th.*
- *Task 3 Data Collection is complete with a few follow-ups with DOT's*
- *Task 4 Data Screening is moving forward and hope to wrap this up by end of December.*
- *Task 5 web meeting will most likely be end of January 2021 – TBD*

Bill Oliva started off by announcing that their next meeting is scheduled for Friday December 18th, 2020. He continued by stating that they are finished with the data collection. There will be some follow-up with a few of the DOTs. Data screening should be done in December. Task 5 on the analytics will probably be in late December or early January. That will be the basis of discussion for the next significant meeting (beyond the monthly meeting) (they are shooting for January 2021). That's where we're going to see some of the primary products from the researcher on deterioration modeling. Bill noted that the schedule has slid back because of data collection, but it is starting to get back closer to being on schedule. Bill opened it up to questions. There were none. And the meeting moved on.

- **Monthly Preservation Topic – Evaluation the Performance of Existing Reinforcement for Oklahoma Bridges (David Darwin, Ph.D., P.E, The University of Kansas)**
 - *Dr. Darwin has been doing rebar research for ODOT Studied Epoxy rebar, galvanized rebar (hot dipped & continuous process), MMFX rebar Study also included panels from Oklahoma's first epoxy coated bridge – 1979 construction*

Dr. David Darwin gave a detailed presentation on the topic noted above. That presentation will be part of the teleconference minutes.

- **Preservation Discussion: All –How states are verifying substructure capacity when adding overlay weight, barrier weight, or looking to re-deck. Paul Pilarski – Minnesota DOT**
 - *MnDOT has developed a scoping unit within our bridge construction unit over the last 5 years to vet bridges that will be seeing a repair project. The purpose is to make sure load ratings for the bridge are solid if we want to redeck or overlay, barrier upgrade policy is met, and in last 2 years we have new guidelines to look at pier caps as the detailing and design methods back in the day have changed. Many of these show cracking noted as shear cracks in the inspection reports, and when you analyze them with strut and tie...well, they just don't work out well. So we have been doing a lot of verification attempts on pier cap capacity using today's code and it remains challenging. Paul is curious how other states are verifying substructure capacity when adding overlay weight, barrier weight, or looking to redeck.*

Paul wanted to have a 10-15 minute conversation on how DOTs are treating their preservation projects and whether you are analyzing your substructures built in the '70s, '80s, and even '90s and with what method. When MnDOT does an overlay or a redeck, they look at if the substructure is still sufficient for the HL-93. It leads to interesting perspective because they detail differently. They didn't use the same crack control or serviceability reinforcement that would lend itself to strut and tie modeling. It forces you back in the corner on lower capacities. He knows that Ohio has done some research but was wondering if any other States were taking this approach of looking at substructures.

Bill Oliva stated that in Wisconsin, they've struggled with this in recent years for redecking and new superstructures. They required the substructure to rate out well for HL-93. That was prohibiting a lot of the work action on substructures that were in pretty good condition based on component and elements. They are re-evaluating that approach and giving that a second thought. Paul Pilarski (MnDOT) asked if they have developed any criteria of where you would analyze? If there was a condition that would warrant analysis? Or are you just waving the structure analysis all together? Bill said that in recent history even if the structure was evaluated using load-factor design and load-factor rating, it is being re-evaluated in LRFD, which was pushing a more stringent code, giving it less credit for capacity. And they were concerned that they were just throwing away a lot of good substructures out there. Because they were rating something with a new code that was designed under an older code that showed it to be in good condition (especially for piling/pile capacity). So, they are re-evaluating that. Bill Oliva said that he would share WisDOT's most recent policy with Paul. It's important to WisDOT to try to do what they can to salvage those old substructures that are in good condition.

Fouad Jabber (NebDOT) said that there is an FHWA Report allowing you to keep the substructure that is designed under Load Factor and put the superstructure as LFR that will save a lot of substructures. That is how they treat this. They won't really check it much unless they remove the superstructure completely

then they will load rate the substructure the best they can. They've been doing this since 1994 and haven't had any problems so far.

Paul Pilarski clarified that it is the piercaps that they are looking at, not the columns or the foundation. The piercaps have been targeted because reinforcement detailing has changed over the years, and they noted that a lot of those bars were not hooked, and they get a lot of inspection reports noting cracking. It may not be shear cracking, it could be flexure cracks that look like shear cracks. The inspectors find it difficult to discern if they have a shear crack of concern, or if it is something showing that the reinforcing is just doing its job. It has generated a policy at MNDOT a policy that if there is shear cracking noted in the inspection report that they have to go through this analysis. The analysis because difficult when the current LRFD steers you toward strut and tie, or some advanced analysis. Does it meet a beam theory criteria, or if it is a girder reaction?

Bill Oliva pulled up WisDOT policy and said that it contradicted what he had said. It says that a substructure unit that was designed in Load Factor Design (say a 20- or 30-year old structure), if they are going to incorporate it into a new superstructure (not deck replacements) but new superstructure maybe with significant widening, then they would rate it under LRFD. That is the thing that was pushing out a lot of "Good Condition" substructures. From their experiences, whether it is a superstructure or substructure component, they have way more capacity than they are giving it credit for. When they do various tests for whatever reasons, they see it often that their deck concrete is usually more than 4000 psi, their substructure concrete is at least 3500 psi. They've wrestled with this, it's a good concern to have especially from a preservation standpoint. If they can preserve and minimize the impact of new projects whether they be improvement or rehabilitation.

Paul then added that as MnDOT moves to scoping and vetting existing structures whether it be a redeck, or add 1-2 inches to the deck, that extra load trigger could take something that looked great and say that it won't work right now in today's capacity equations. He said that was why he was looking at other States to see if they were finding that a structure looks like it is performing adequately, but when you run the numbers and they would tell you to throw it away or do significant rehab to bring it up to a serviceability.

As time was running out for this call, it was decided that further discussion on this topic will be pushed to a future monthly teleconference call.

- **MnDOT completed a report on use of electrochemical chloride extraction and as a follow up excavated to some highly chloride contaminated regions of the pier caps without outward signs of deterioration. (Paul Pilarski – Minnesota DOT)**
 - *While there was some minor corrosion at one site, the corrosion was insignificant despite chlorides at least 3X chloride threshold. It makes me think we need a research project on chloride levels and corrosion rate for service life modeling.*

This topic was not addressed during this teleconference due to time constraints.

- **Other New Business**
 - *Monthly Preservation Topics for January - volunteers*

Forward any topics on to Bill Oliva or Sarah Sondag.

- **Next Monthly Meeting**
 - *January 5, 2021*

- **Meeting Adjourned**

There was an abbreviated adjournment at 1:03 PM (CST) when the call ended inadvertently because of another GOTO Meeting which used the same link as this teleconference. No big deal. Had he had time, Bill Oliva would have wished everyone a happy holiday season and would've closed out by saying "See ya all next year"!