

MINUTES:

DRAFT

When: Wednesday, May 2, 2018 12:00 – 1:00 AM (Mountain Time)

Where: Web-conference

I. There were 23 attendees to the WBPP regional web meeting. Attendees included:

Andrew Blower – Oregon, ODOT
Brandon Henning – Nevada, NDOT
Chis Hardan – Montana, MDT
Chris Keegan – Washington, WSDOT
Clay Christiansen – Dayton Superior
Dan Patacca – E-Chem
Darlene Lane – NCPP
David Hoyne – Greenman-Pedersen Inc
Earl Franks – New Mexico, NMDOT
Ed Welch – NCPP
Gregg Freeman – Kwik Bond Polymers
Herbert McDowell – Idaho, ITD
Jun Goto – MFS
Mark Libby – HDR
Mike Bezner – Clackamas County, Oregon
Patte Hahn – NCPP
Paul Jensen – Jensen Engineering
Raj Ailaney – FHWA
Scott Choate – Agile Assets
Thad Pinkerton – Utah, UDOT
Travis Kinney – Oregon, ODOT
Troy Martin – Nevada, NDOT
Judy – NCPP?

II. Welcome/Introductions

Vice Chair Chris Hardan ran the meeting. He welcomed everyone to the meeting and went through the attendee list.

III. Working Group Updates

Local Outreach – Gregg Freeman reported that this working group is working to include Local Agencies into the Partnership. Currently work is being done to share the preservation pocket guide with Locals. This pocket guide is being transitioned into a Mobile App and the intent is to roll that out to be accessed by anyone. Additionally, work is being done to upload and manage presentations into modules for similar access. Victoria Peters (Local Technical Assistance Program, LTAP) is working with the working group to help share these resources to LTAP and other Local Agencies.

There was a discussion that the Partnership is working to formalize how Local Agencies can contribute and attend functions. AASHTO at the moment is hesitant to call Local agencies members to the partnership. Partnership is based on volunteer contributions by the States and thusly full member privileges are based as such. TSP2 sees the value and supports Local participation in our activities. There may be a vehicle to include them as Associate Members, Partners or Friends. Currently there is a meeting scheduled for later this May with NBPP and the Feds and one of the discussion items is how Locals could participate and if there would be a cost to them. We should know details of this meeting by the end of the month.

Deck Patch Matrix – Clay Christiansen reported that as part of the National Bridge Deck Working Group the Deck Patching Matrix is nearing completion. If anyone has specific material properties they want included in the Matrix contact Clay ASAP so those can be included. The matrix should be finalized in the next few months. The document will be emailed to the WBPP for review soon.

The National Bridge Deck Working Group has developed a Deck Database that is presently being populated with Overlays and Sealers. Once the Deck Database is populated for States usage of Overlays and Sealers the Deck Patch Matrix be included as well.

IV. Technical Topic – Thin Bonded Overlays – Thad Pinkerton, UDOT

Background: UDOT has been placing thin bonded polymer overlays on bridge decks throughout the state for approximately 20 years. Some have been placed during initial construction, some placed one season later, and others placed during various stages of a deck life. UDOT has put a main focus on surface preparation to try to limit debonding, but delaminations are still occurring. There hasn't seemed to be any pattern as to what might be causing this. UDOT is evaluating the use of a prime coat prior to the placement of a thin bonded polymer overlay.

Discussion Items:

What could be causing this delamination? Several ideas were batted around to why these delams have occurred. Surface prep is always a suspect, especially in the early life of a deck. If improper prep is done with curing compounds still on the deck, even if not visible, the bond suffers. Poor quality aggregates and overlays with solvents could also lead to delam. Delam could also be due to extreme thermal cycling and environmental conditions.

A too early return to traffic could also be a problem as cross-linking may not have completely occurred. The industry folks certainly would like to see additional curing time. Although aggregates may appear set, the polymers could still be setting and any stresses could affect the final product. It is also recommended that metal bristle broom **not** be used to clear excess aggregates.

A discussion occurred that potential testing might be beneficial to verify bond using a direct pull off test. Someone mentioned that overlays with good initial bond may still delaminate and testing doesn't necessarily ensure performance.

Are there any states using prime coats? A few states have had projects using prime coat but the placement has been recent and not enough time has passed to evaluate if the prime coat is a benefit.

Does a prime coat provide better adhesion of the polymer overlay to deck, reducing the potential to debonding? Everyone seemed to agree that a prime coat would certainly help with bond. It was noted that it is highly important that the prime coat be compatible with the thin bonded overlay system and that it be designed specifically as a prime coat. A deck sealer should not necessarily be considered a good candidate for a prime coat.

Do the benefits of a prime coat justify the increased cost? There didn't seem to be enough experience with prime coats to make any initial determinations if prime coat was worth the added cost. However industry folks noted that the addition of a prime coat might only increase the constructed square foot price \$0.75.

Are there any negative impacts to using a prime coat? The only negative comment is the potential for the placement of the overlay would take more time. It was stated that the first layer could be placed while the prime coat was still wet. The prime coat would have a similar cure time and additional construction time might be negligible.

What is being done to mitigate for these types of failures? Overlay sounding is imperative to see if delaminations are isolated to visible failures or if the whole overlay is in question. If the overlay is suspect, it can be heated and scraped off. Grinding doesn't seem to be a good removal method as it can gum up the blades.

If the remaining overlay seems to be competent, then spot deck-prep and repair using overlay material is recommended. An additional layer could also be added to cap the whole surface. There is some concern that increasing the layers too much, might lead to more delam as the thin bonded overlay is intended to be thin. As layers add up, internal stresses at the bond line become higher and it becomes more susceptible to delamination.

V. Treasury Items

Darlene reminded everyone who has not completed the reimbursement process for the NBPPC in Orlando to do that ASAP.

Ed noted that the WBPP's balance is around \$45,000.

Ed said all of the states in the WBPP have their yearly contribution in except California, Hawaii and Wyoming. If you are from these states and can affect any action, please help get those in.

Ed stated that some of the other regional partnerships were sending their officers to SCOM & SCOBS. If officers are interested in attending either of these two meetings they need to make arrangements ASAP. If officers cannot attend, then the other state directors would be good candidates.