MINUTES: <u>DRAFT</u>

When: Wednesday, October 2, 2019 11:00 – 12:00 PM (PDT)

Where: Web-conference

I. There were 26 attendees to the WBPP regional web meeting. Attendees included:

Becky Nix – Utah DOT

Benoit Cordoba - Wyoming DOT

Chris Keegan - Washington DOT

Chris Higgins – Oregon State

Darlene Lane - NCPP

John Hooks - NCPP

Travis Kinney – Oregon DOT

Brandon Henning – Nevada DOT

Remy Stern – EOPS?

Ed Welch - NCPP

Brent Schiller – Forsgren Associates

Herb McDowell - Idaho DOT

Gregg Freeman - Kwikbond Polymers

Jason Fogg - HDR

John Gillis – Cal Trans

Mike Collins – Colorado DOT

Scott Houston - Colorado DOT

Natasha Butler - Colorado DOT

Andrew Pack - Idaho DOT

Lorella Angelini – Angelini Consulting

Erol Kaslan – Cal Trans

Michael Hill

Mitzi McIntyre – CTS Cement

David Hoyne – Greenman-Pederson

Mark Libby - HDR

Clay Christiansen - Emseal

## II. Welcome/Introductions

Herb M. welcomes all and leads roll call, requests comments on minutes. Herb and attendees approved minutes.

## III. Working Group Updates

<u>Local Agency Outreach</u> – Gregg Freeman gives a working group update: Travis has developed a spreadsheet to track the presentation module development. We currently have 17 presentation modules, and we are looking for industry experts to help with modules. The goal is to have 2-3 slides for each bridge preservation activity. Introducing the activity, giving key talking points, and show them how to get in depth information.

Looking at Indiana local agencies as a case study for bridge preservation at the local level. The group supports developing a short (6-8 min) video that showcases this success story in Indiana. Using TSP2 Regional Partnership or FHWA funding was discussed. Due to the short timeline leading to the conference it was decided to see if Purdue would be interested in obtaining some of the video needed and possible using FHWA funding for future conference.

Ed Welch- Added that an article from pavement preservation was sent to Gregg and Herb, explaining that local agencies can now be full members of the TSP2 program partnership: <a href="https://www.pavementpreservationjournal-digital.com/fppq/0319\_fall\_2019/MobilePagedArticle.action?articleId=1515834#articleId=1515834">https://www.pavementpreservationjournal-digital.com/fppq/0319\_fall\_2019/MobilePagedArticle.action?articleId=1515834#articleId=1515834</a>

<u>Bridge Deck Chloride Testing</u> – Travis informed the group that the report is being reviewed by the group. There were some sections that needed additional content, so the group is getting close to finishing this task. Working on presenting the content and advertising the report. They are looking at a 30-minute presentation on the report. The report is around 80 to 90 pages, so they are also developing an executive summary.

# IV. Technical Topic

<u>Timber Deck</u> – Mike C. introduced Natasha B. to present the state of Colorado issue with split timber girders, with some areas having to be repaired 2 to 3 times per year. The repair that the Colorado maintenance crews implement is a lag bolt repair. Scott H. informed the group the lag bolt detail that the state uses has issues with stiffness. The girders stiffness is decrease with the lag bolt repair. The adjacent girders to repaired girders start to split, due to the decrease stiffness of the other girders. Do other state have different repair details or spec. that address the decrease stiffness?

<u>Travis</u> – Oregon has cast in place concrete decks over timber superstructures, some are semi composite. Thought short haul vehicles being the possible cause for the split members? Did Colorado evaluate those vehicles and load posted for those type of vehicles?

<u>Scott</u> – Colorado's concrete decks do better than the bridges with timber decks.

<u>Travis</u> – Oregon detail is <sup>1</sup>/<sub>4</sub>" plate at bottom and fish plating girders with through bolts. This could help provide better stiffness.

<u>Scott</u> – Is it the whole girder or just the area of the repair?

<u>Travis</u> – Area of repair, just past the crack. The lag bolt with plate added stiffness, the sandwich is better.

<u>Scott</u> – IS there a pattern of splits in girders?

Travis – Mostly in the wheel paths. Oregon is updating load rating for SHV.

<u>Erol Kaslan</u> – Caltrans said the local agencies are using lab bolt, doesn't help load rating. Concerns with effectiveness overtime with sandwich treatment. Doesn't help the load rating for the bridge.

<u>Travis</u> – Dr. Higgins coming up with better option to address split girders and better ways to evaluate.

<u>Mike C.</u> – Colorado hopes to improve spec to help local agencies with better designs and repairs.

<u>Erol</u> – Local agencies ask for help, but Caltrans is unable to give them full design. A spec would be useful to help the local agencies with repairs.

<u>Mike C.</u> – Colorado considering load test the strength of retrofits. The life cycle cost is not good on current repairs. Carbon fiber wraps have been considered. Is looking for a repair that is easy for maintenance crews to complete.

<u>Group discussion</u> – Crusoe timber has issues bonding with carbon fiber wrap. The following states have this issue – Oregon, Washington and Colorado. Pressure treated timber is used by California and Colorado.

<u>Erol</u> – Army Core of Engineers applied a carbon fiber wrap and broke it for a study.

<u>Wyoming</u> - Same through bolt detail with steel plate for full length, they do see the adjacent girders cracking, they post for the defects.

<u>Mike C</u>. – Are you over engineering wheel path girders?

Wyoming – Unzipping hasn't been an issue.

<u>California</u> – We don't have SHV on California highways and add more elements to resist unzipping affect.

<u>Colorado</u> – Keeping parts of removed bridges to use in future repairs on other timber bridges.

<u>Idaho</u> – Not much to add, no timber bridges on state inventory.

<u>Gregg</u> – Has anyone done epoxy injections? There has been successful timber repair using epoxy injection. Gregg provided contact info for someone who knows how to do this.

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<u>Colorado</u> – Trouble getting full penetration, hard to get equipment to the bridge.

<u>Herb M.</u> – Showed details on Idaho repair that has worked in Idaho, it is a hanger method.

Becky N. – Utah has used epoxy injections for columns that are rooting inside out.

Washington – Has used fiber wrap and epoxy injection

<u>Becky N</u>. – Has a good cost-benefit, compared to replacing structure.

## V. Administrative Items

<u>2020 WBPP Annual Meeting</u> – The next annual meeting is Tuesday May 12, 8am through Thursday May 14<sup>th</sup> noon at the Renaissance Glendale Hotel in Phoenix. We are looking to get a picture from Arizona to use for the save the date. A survey will be sent out for presentation topics. We will also be starting to look for presentations. We encourage everyone to attend. We would like a few more people on the call, especially from Arizona and would like Clay on the call from industry so we can get industry representation on the steering committee.

### New Business:

<u>Vacancies</u> – Looking to fill some positions, as we have had some people step down. We have a position for state agency and one local agencies. There was a nomination for Natasha Butler to replace Mike Collins. Herb is going to send out an email for nominations for positions.

<u>Chris Hardan Steps Down as Chair</u> – Chris H. announces this will be last meeting as chair as he is moving to private industry. Herb has volunteered to be chair. Ed explained he could be acting chair until next in person meeting or be voted on the next call. Chris will work with Herb offline on details.

<u>Budget</u> – Was shown on screen and budget is healthy.

Herb M. thanks all and the meeting is adjourned.

Next Meeting November 6<sup>th</sup>, looking for technical topics for the meeting.