Meeting minutes: NRRA Intelligent Construction Technology (ICT) team monthly meeting

Date: 04/07/22
Minutes prepared by: Rebecca Embacher, MnDOT
Location: Microsoft Teams

Attendance

Angerhofer, Paul
Baris Salman
Bautista, Emil (DOT)
Blanchette, Andrea L
Brakke, Chris
Brandon Brever
Brett Williams
Calhoon, Thomas (DOT)
Chris Trboyevich
Clark, Jason (MDOT)
Cooper, Stephen J (FHWA)
Dai, Shongtao (DOT)
Dao, Lauren (DOT)
David Ford
De Vries, Jeff
Dunn, Curt G.
Embacher, Rebecca (DOT)
Engstrom, Glenn (DOT)
Full Name
Haaland, Nathan A.
Heim, Michael P (DOT)
Hill, Brian C.
Hoegh, Kyle (DOT)
Jim Preston
Joe Korzilius
John Donahue
Jonathan C. Varner
kmaser
Kottke, Drew - DOT
Lee, Sheue
Maskey, Deepak R@DOT
Mike Gallant (Guest)
Narsingh Laikram
Nazarian, Soheil
Podolsky, Joseph (DOT)
Raheem, Adeeba A
Ruairi Charlesworth
Sabouri, Mohammad
Siekmeier, John (DOT)
Signe Reichelt
Steyn, Lynnette
Supraja Reddy (Guest)
Todd Mansell
Turgeon, Curt (DOT)
Vrtis, Michael (DOT)
Worel, Benjamin (DOT)
Zegeye, Eyoab (DOT)

Decisions made

- None

Action items

- Work with planning committee for the Minnesota Transportation Conference and Expo to get agendas posted, registration feature for Veta training, increased advertisement, etc. /Glenn Engstrom

Agenda

- Minnesota Transportation Conference and Expo Hall (Engstrom)
- MnROAD Construction (Worel)
- Solicitation for Pooled Fund Study “Continuous Bituminous Pavements Stripping Assessment through NDE Technologies” (Zegeye)

Next meeting

Date: May 5, 2022
Time: 10:30-11:30AM CST
Location: Microsoft Teams
Agenda items: * AASHTO PP114 “Standard Practice for Data Lot Names for Use with Intelligent Construction Technologies”
* TBD

Meeting notes

MnROAD update (Worel)

Contractor has been selected. Currently, negotiating contract.

Working with Caterpillar on milling which will be completed during the last two weeks of May. Milling efforts will also be coordinated with NRRA project “Understanding and Improving Pavement Milling Operations”.

Construction starts the beginning of June. Work will include removal of concrete and unbound materials, and placement of unbound materials.

July/August – asphalt and concrete paving will begin.

The contract end date is 9/2/22.

Minnesota Transportation Conference and Expo (Engstrom)

May 17-19, 2022

May 20, 2022 – tour of MnROAD

NRRA is paying for 3 individuals from each state that is fully participating in NRRA. This will include all travel costs and registration.

For those states only participating in the ICT team, NRRA will pay for conference registration.

Continuous bituminous pavement stripping assessment through non-destructive testing (Zegeye)

NDE Stripping Evaluation Project - Materials & Road Research - MnDOT (state.mn.us)

MnDOT pooled fund solicitation TPF1569 https://www.pooledfund.org/Details/Solicitation/1569: The study will primarily focus on the early detection of stripping using NDE technologies (with limited or no coring). The tools developed in this study will assist engineers in detecting early the location, distribution and depth of stripping; critical information in choosing proper rehabilitation strategies. The study will also be a good opportunity for states to be exposed to and trained using new NDE technologies such as 3D-GPR and TSD. Having different states join the study will allow us to see the issue from different perspectives (for example, the causes for stripping in Mn may differ from Idaho). We could also leverage and build on previous studies and assets by your state. Below is a summary of the overall objectives. Please let me know if you need additional information or to want to discuss the financial commitment.

1. Developing a methodology for rapid and automatic stripping detection based on 3D-GPR (or 1D-GPR) data and validating the output using other NDE technologies such as Falling Weight Deflectometer (FWD), Traffic Speed Deflectometer (TSD), Impact Echo (IE), and Thermal Imaging. The development will be based on experience and needs from participants so that the developed methodology can effectively and efficiently support their pavement evaluation program.
2. Verifying and validating the developed methodology on actual projects selected by the participating agencies. The more states, the stronger the methodology.
3. Providing participating agencies guidelines on data collection and analysis protocols.
4. Drafting AASHTO specification.
5. Facilitating and supporting communication between experts of NDE technologies, state engineers and vendors to advance the use of GPR for inspecting pavement subsurface issues.
6. Providing training and technical assistance that includes providing support for specification development and strategies for agency full implementation.
7. Conducting technology promotion for the technologies.