

May NRRRA  
Flexible Team  
Meeting



5/11/2022

# Agenda

- Welcome and Introduction: Curtis Dunn  
Dunn, Curt G. [cdunn@nd.gov](mailto:cdunn@nd.gov)
- Minnesota Transportation Conference & Expo Update (Lauren Dao)  
**Flexible Team Presentations and Speakers**
- 2022 MnROAD Test Section Construction and Contracting Updates (Ben Worel/Emil Bautista)
- Upcoming “Research Pays Off”
- Ideas for Future Flexible Meeting Presentations
- Flexible Team Presentations: **North Dakota Update/Highway 32 Mill and Overlay**

## New Attendees Today

Melissa Korby (Interstate Engineering)

Oak Metcalfe (Montana DOT)

## Meeting Notes

### **Minnesota Transportation Conference and Expo - Lauren Dao**

May 17-19, 2022 - Friday, May 20, 2022 – Tour of MnROAD.

Lunch and transportation will be provided as part of tour. A survey will be sent out to get an accurate count for the MnROAD tour.

The tour is free of charge. Leave at 8am from the River Center and arrive at MnROAD around 9AM. Will be back at the River Center around 1:30pm.

NRRA will have a booth at the conference. Need to have individuals (at least one person) at the NRRA booth at all times. Signup for the booth is at: <https://signup.com/go/TDhHoUC>.

The Innovation Show Case Stage will provide shorter presentations throughout the duration of the conference.

The Show Case will be located in the exhibit hall. Please visit and support some of our NRRA members. This is the first time providing the Show Case Stage.

We are hoping it will be a success.

## Meeting Notes (continued)

### **MnROAD update - Ben Worel/ Emil Bautista** (See next slide)

Need to do repairs on the low volume road. Finds ways of taking out all of the concrete and replacing it with new concrete mix to reflect studies not already included for the mainline reconstruction.

Looking for ideas from members. One option may be reclamation or different types of overlays, etc.

The goal is to repair the section, but also be focused on research as well. Like to repair it this summer because the section is severely distressed and rough riding.

Contact Ben Worel if you have any thoughts or ideas.

MnROAD re-construction contract has a Contractor on-board (C.S. McCrossan). PCI will be paving the concrete. Caterpillar will partner to complete the milling. Milling will start this month on the 23<sup>rd</sup>. Milling will take about 2 weeks. After the milling operation, removals of concrete and base material will start. Around the middle of June, the new base materials will be installed. Asphalt paving will commence in August and concrete paving as well. Instrumentation work is being worked on now and testing of the sensors.

# “2022 Call for Construction” MnROAD Low-Volume Road Sections Available

## Looking for new partnerships / research ideas

- Low Volume Road allows greatest risk/innovation
- Need for immediate repairs
- Could be Concrete / Asphalt / Reclamation
- Want to maximize research opportunities

## Open Test Sections (550 feet each)

- Existing HMA – Cell 31 (2004)
  - 4” Taconite HMA / 12” granular base / Clay
- Existing PCC – Cell 32 (2000)
  - 5” PCC / 7” granular base / Clay

Contact - [ben.worel@state.mn.us](mailto:ben.worel@state.mn.us)



## Meeting Notes (continued)

**Tyler Wollmuth (Assistant Materials and Research Engineer)** presented on what NDDOT is currently doing to address the current challenges with their asphalt pavements. Tyler discussed on-going and future research and the recent procurement of several types of performance testing equipment including the I-Fit, Ideal CT, Ideal RT, Hamburg Wheel Tester, DCT, and the Texas Overlay Tester. Tyler also reported on the Mobile Asphalt Technology Center (MATC) visit to North Dakota and the results of the testing done. New guidelines were discussed as they relate to RAP and asphalt mix design procedures and HMA binder selection. The recent organization of the HMA Advancement Group to address asphalt pavement concerns. North Dakota has two Percent Within Limits asphalt projects bid this season along with a SuperPave 5 project. New specifications to encourage the use of more binder in the asphalt mixture was also presented.

**Melissa Korby (Interstate Engineering)** assisted by Curt Dunn presented on the Highway 32 Mill and Overlay Project in Finely ND constructed in 2021. Melissa was the Project Engineer on this project. This project had several Intelligent Construction technologies including IC, PMTP, DPS, LWD, & Ride profile. The Veta software was used to conduct a post analysis of the new pavement and compare the technologies. Melissa and Curt researched the data and found correlations between roller passes, mix temperatures, segregation, paver stops, & construction methods and how each affected the outcomes of mat density, Ride profile (MRI), and uniformity of the asphalt mat. The Highway 32 project also included binder test sections where two binders (PG58S-28 & PG58H-34) were used on the project. Each of these 3000' test sections will be evaluated to determine their resistance to Thermal/Reflective cracking. Mix was sampled from each test section for performance testing.

Thank You Melissa and Tyler for your excellent presentations and contributions to the meeting!

# Minnesota Transportation Conference & Expo Update

- May 17-19 at St. Paul River Center
- MnROAD Tour May 20
- NRRA Track
- ISIC Track
- Equipment Showcase
- Web registration available now
- [www.mtcexpo.com](http://www.mtcexpo.com)
- Booth [sign-up](#)





# Minnesota Transportation Conference & Expo

- **Session - Thursday at 9:30 am – 10:30 am**

1. Cold Asphalt Recycling Technologies using Rejuvenating Asphalt Emulsion: Impact, Implementation, Specification – PI = Dr. Hassan Tabatabaee
2. An Innovative Practical Approach to Assessing Bitumen Compatibility as a Means of Material Specification – Dr. Hassan Tabatabaee
3. Novel Methods for Adding Rejuvenators in Asphalt Mixtures with High Recycled Binder Ratios – PI= Dr. Fan Yin, P.E.
4. Impact of Polymer Modification on IDEAL-CT and I-FIT for BMD – PI = Dr. Fan Yin

- **Session -11:00 am – Noon**

1. Panel Discussion on Stabilized Full Depth Reclamation
2. Discussion on Future Needs and Goals for Asphalt Pavement Research

## Upcoming Research Pays Off

<http://dot.state.mn.us/mnroad/research-pays-off/index.html>

- **May:** No session—we hope to see many of you at the Minnesota Transportation Conference & Expo.
- **June 21:** A rescheduling of the planned March presentation: "ICT as a Service and for Compliance How ICT Research has led to the Removal of Technicians from Construction Sites in the UK" presented by Ruairi Charlesworth of Highway Data Systems. This talk will discuss HDS technology, how ICT can be delivered as a service and explain how ICT is being used for asphalt testing compliance in the UK and Ireland.

## Ideas for Future Flexible Meeting Presentations

### June NRRRA Flexible Meeting Agenda

Missouri Center for Transportation Innovation (MCTI)

- Collaboration for Reflective Cracking Challenge!!!

### Idea to Consider for Future Meetings:

Agency Highlight – (Each month one NRRRA State, may volunteer to give an update on what their State is doing to address Flexible Challenges in their State).

## Flexible Team Presentations

Presenter: Tyler Wollmuth – Assistant Materials and Research Engineer

Topic: “NDDOT HMA Overview” (Performance Testing, On-going Research, Mobile Asphalt Trailer Center Visit, New Specifications)

Presenter: Melissa Korby – Project Engineer (Interstate Engineering)  
Curtis Dunn - Highway Materials Engineer (Grand Forks District)

Topic: “Hwy 32 Mill and Overlay” (Asphalt Binder Test Sections and Comparing Intelligent Construction Technologies)

Next meeting Date: June 1, 2022

Time: 10:00-11:00 AM CST

**See You Then!!**