

Material Engineers Organization

Spring 2012 Meeting

Day One Morning - District Materials Engineers

Attendees:

- | | | |
|-------------------|---------------------|------------------|
| a. Curt Turgeon | f. Tom Meath | j. John Hager |
| b. Jamie Hukreide | g. Graig Gilbertson | k. Greg Ous |
| c. Keith Voss | h. Dave Van Deusen | l. Keith Shannon |
| d. Rod Garver | | |
| e. Jim Bittmann | i. Chris Kuefner | |

1. Alternate Bid Issues

- Discussion on alternate bid issues
- Curt Turgeon's new position will address some of the current issues with Alternate Bid Design. It is his intention to go through the STIP and verify all of the Alternate Bid Projects, to verify that they are viable candidates.
- Greg Ous discussed some future scenarios
- We need to develop what are the must do things on alternate bids.
- Documentation of decisions is very important in any alternate process.
- One issue discussed is not having one person in charge of the process and consistency.
- Question if the 4" and 7" are reasonable numbers. The thought was that as Curt goes through the STIP to select project, this will not be a hard and fast rule.
- The extra amount of time to develop, layers of approvals was brought up as a concern.
- The need for an update Pavement Design Manual was express. This would help with consistency and a formatted process to follow. Right now there a lot of documents and pieces that is not in a consistent place and format.
- Concern about doing Alternate Bid on projects where the LCCA is not close. This is a lot of extra effort with little payback. Curt's review of the STIP and projects should alleviate some of this.

Day One Afternoon - Materials Engineer Organization Meeting

Attendees:

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|-----------------------|---------------------|-----------------|
| a. Curt Turgeon | i. Chris Kuefner | q. Tim Clyne |
| b. Jamie Hukreide | j. John Hager | r. Tim Anderson |
| c. Keith Voss | k. Greg Ous | s. Mark Watson |
| d. Rod Garver | l. Keith Shannon | t. Maria Masten |
| e. Jim Bittmann | m. Dave Christensen | u. Bill Lohr |
| f. Tom Meath | -Audit | v. Ben Worel |
| g. Graig Gilbertson | n. Jim Kochiek | w. Dave Janisch |
| h. Dave Van
Deusen | o. Shongto Dai | x. Steve Grover |
| | p. Jerry Geib | y. John Garrity |

1. Alternate Bid/Mobility Assignment

- Curt Turgeon - Curt went over a spreadsheet that dealt with projects in the STIP and how this is covering the pavement needs.
- Maintenance – We may need to look at lower cost Preventive Maintenance project strategies to extend the pavement life. We need to accomplish more miles with less.

2. Office Update

- Keith Shannon – 7 out of 8 District visits are done
- Discussed public survey on pavement conditions. Smooth surface is rated (how well we are doing) one of the lowest as for public perception. This is based on a maintenance point of view.
- Discussed long term program including risks and future outlook on pavements.
- Flexible design standard update.

3. Exception Summary Form

- Dave C. and Bill Lohr - Dave's interpretation was that Materials Engineers role is advisory (had input).
- Dave C. encouraged a deeper look into test data.
- State Aid Form has been changed without input from the Materials side.
- Ron Bumann explained that the original Materials Exception Form did not have a Materials Engineers signature. It was added with the IA check offs to cover the IA compliance.
- ***Sub-committee to work on the form and meaning Jim Bittmann, Graig Gilbertson, Chris Kufner, and Bill Lohr (FHWA)***
- Discussion on what the Materials Engineers signature mean on both the Mn/DOT and the State Aid Form.
- State Aid Form process is discussed in the State Construction Manual.

- Ron Bumann will discuss with the State Aid Engineers on what they need as for review on Materials Exception Summary Form.

4. Tech Memo 1-SA-01 – State Aid Schedule of Materials Control

- *Presentation*
- Joe Macpherson – State Aid in the field south region
- 1500 ADT and Less, non-federally funded projects.
- Discussion on issues related to the Schedule.

5. Mn/Road – Tim Clyne

- *Presentation*
- Discussed some possible fixes on Mn/Road cells
- There are several on the mainline that need work, along with a section on the low volume road.

6. Mn/Road – Jerry Geib

- *Presentation*
- 1st National Preservation Partnership – Nashville Aug 27 – 30, <http://nationalpavement2012.org/>
- Krayton SBS Polymer - PG 76 – 34, 25% RAP next to PG 64 – 28 25% RAP. Similar reflective cracking. 7.5% polymer, try modified microsurfacing project in D3
- Permeability Test – looking at permeability testing pertaining to joint density. Need about 92% to obtain reasonable permeability. Will continue to look at.
- Jerry Geib is going to try and start up some training classes for Soils/Materials Engineers.

Day Two - Materials Engineer Organization Meeting

Attendees:

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|---------------------|------------------|------------------|
| a. Curt Turgeon | i. Chris Kuefner | r. Dave Janisch |
| b. Jamie Hukreide | j. John Hager | s. Steve Grover |
| c. Keith Voss | k. Terry Beaudry | t. John Garrity |
| d. Rod Garver | l. Jerry Geib | u. Darrin Nelson |
| e. Jim Bittmann | m. Tim Anderson | v. Rebecca |
| f. Tom Meath | n. Mark Watson | Embacher |
| g. Graig Gilbertson | o. Maria Masten | |
| h. Dave Van Deusen | p. Bill Lohr | |
| | q. Ben Worel | |

7. Mastic Patching

- *Presentation*
- D3 is to some trials or research on this product, D7 has also tried this product (Tom Zimmerman)

8. R-value, Design Thickness

- Dave Van Deusen discussed TH 95 issue on meeting R-value on reclaim on an alternate bid project. He was finding large deviation on R-values and how can we be accurate on design using a highly variable test. Dave will email some graphs.

9. Pavement Design – Tim Anderson

- *Presentation*
- Do we need a rounding procedure? Condenses to make one for all design procedures.
- Mn/Pave use the actual R-value, Flexpave, Rigid, UBOL, and Whitetopping use 85% FWD or lab tests – one standard deviation.
- Recommend using Mn/Pave as the standard and want to start phasing out Flexpave
- Concrete use RigidPave, Looking at developing a new program, UBOL use spreadsheet program.

10. Bituminous – John Garrity

- *Presentation*
- New fine gradation on the A – gradation
- New vs. old oil – make sure we follow during production.

- Put a note on MDR's about the new vs. old oil, if it is too high for -34 oil
- Contractor can request Mn/DOT actually do the cores
- JMF adjustment on 10% cumulative adjustment
- Keep an eye on mix temperatures
- Low AC mix < 5% do TSR's, make sure good density, make note and track performance.
- Test Turnaround
- Would like to see joint enhancements used on projects
- Joint heater – John has info on it
- Keep track of warm mix asphalts including foaming

11. Concrete – Maria Masten

- **Presentation**
- Requiring spreadsheet for plant gradations
- Went over dowel bar alignment issues and equipment to investigate.
- Update on W/C ratio study

12. Grading and Base – Terry Beaudry

- **Presentation**
- Discussion on a new drainable base to replace CL 5 and CL 6. Maria and Terry will explore.
- New Random sampling technique, one station, no offset, 3 portions taken from the quarter points across the road.

13. Grading and Base – Mark Watson

- **Presentation**
- Updated on FDR, SFDR, and CIR
- Will be working on HIR (Hot In Place Recycling) Specification

14. Moisture-Density Stiffness – Rebecca Embacher

- **Presentation**
- Intelligent Compaction – training is going to be part of the specification, requiring uploading to the cloud, data management is one of the most difficult piece
- Went over new Veda software for mapping test data
- Sonic test rolling – for area lighter application than a test roller

15. Liaison Reports

- IA – Tim Sinclair – Discussed IA meeting minutes, uniformity sheets are almost complete, the rates on concrete will be going down, IA database need and will get improvements
- Lab – Mike Daniels – Not Present
- Construction – Dave Schwarting – Concern about course mixes
- Soils – Darren Nelson – soils automation committee will be restarted.
- ADE – Craig is not present

F. FHWA – Bill Lohr – June 4-6 FHWA will have their pavement engineers at Mn/Road

16. Next Meeting – Keith Voss is the President for the next meeting