

Wisconsin Department of Transportation

Date: December 19, 2022

Subject: Agenda for Aggregate Technical Committee Meeting

Location: Galena Conference Room, Truax and Teams Meeting

Time: 8:00 AM to 10:00 AM

Attendees:

WisDOT Members:

- Barry Paye – BTS Director
- Erik Lyngdal – BTS Chief Materials Engineer
- Tirupan Mandal – BTS Concrete Materials Lab Supervisor
- Adam Albers – BTS Materials Lab Coordinator
- Dan Reid – BTS Hydrogeologist
- Josh Seaman – BTS Aggregate Specialist
- Mark Kray – BTS Soils and Aggregate Specialist
- Leslie Hidde – BTS Concrete Quality Assurance Engineer
- Adam Johnson – BTS IA Program Coordinator
- Craig Smits – NCR TSS Chief
- Rebecca Rooyackers – NER TSS Supervisor
- Andrew Zimmer – SER TSS Supervisor
- Greg Brecka – SWR PDS Project Manager
- Jaime Cynor – NER Concrete & Aggregate IA/QMP Coordinator
- Orville King – NWR Materials Engineer
- Wayne Chase – BPD Local Program and Construction Project Oversight Unit
- James Parry – BTS Quality Assurance Supervisor

FHWA Members:

- James Pforr – FHWA Pavement & Materials/Asset Management Engineer

Industry Members:

- Jack Peterson – Yahara Materials
- Jr Ramthun – Michels Corporation
- Mark Sander – MTE Services, Inc
- Matt Grove – Wisconsin Transportation Builders Association
- Mike Kleist – James Peterson Sons, Inc
- Erin Longmire – Erin Longmire Consulting, LLC
- Jeremy Barron – Walbec Group
- Bruce Brown – USGS subject matter expert

- David Hose – MTE Services, Inc
- Erik Olson – MTE Services, Inc
- Neal Atanasoff – Walbec Group
- Paul Eggen – Westwood
- Jason Weiker – Milestone Materials
- Deb Schwerman – Wisconsin Asphalt Pavement Association
- Kevin McMullen – Wisconsin Concrete Pavement Association
- Jackie Spoor – Wisconsin Concrete Pavement Association
- Paul Minneti – Lannon Stone Products
- Steve Bloedow – Rock Road Companies, Inc.
- Tod Pauly – Aggrecon Ltd
- Travis Kurey – MCC, Inc

Agenda Items:

1. Welcome and introductions (**Mandal**)
 - Mark Kray is the new soils and agg specialist.
2. Source approval lab testing status (**Mandal**)
 - Displayed source approval tests performed and labs participated in 2022.
3. CMM, FDM, and Spec changes (**Mandal**)
 - No issues from committee on these specs. They are already in the 2023 edition of the SS.
 - QMP Base Changes
 - CMM 815.12.1 Use of Nuclear Density Gauges on Soils, Base Course
 - CMM 834.2.1 Verification Testing
 - FDM 19-21-5 5.2.1 QMP Base Aggregate Dense 1 1/4-Inch Compaction
 - SS 730.3.1 General
 - SS 730.3.3 Department QV Testing
 - SS 730.3.4.1 Contractor QC Testing
 - Aggregate Source Approval
 - CMM 860.2 Aggregate Source Approval
 - ❖ Action Item from Feb 2022 Tech Meeting: Host meeting to gather feedback about removing stockpile method (CMM 860.5.4.2)

- ❖ Dept will not use the alternate stockpile method, but we want to keep the method in the spec so contractors have flexibility to use this method if they need.
- ❖ Discussion was raised since the alternate method has safety and sample bias issues.
- ❖ This method will be included in the curriculum but will be noted that it shouldn't be used if representing the DOT.

4. Adding ASR testing to the aggregate list for certifying aggregate sources
(McMullen)

- Recent let prop 27 (hwy 29 Abbotsford and Wausau) is in the geologic region that is susceptible to ASR.
- F-ash or slag to mitigate the ASR if it's found. Contractors struggle to properly include the risk of ASR and testing into their bids with the current testing guidelines in the SS. ASTM C1260 (quality screening test) and C1567 (project level test with MD) as part of the agg cert process.
- Industry would like ASR testing to be upfront and included in the agg certification process.
- FAA wants this testing done regardless of geochemistry or use.
 - DOT: 0.15% for for 14 days, FAA: 0.1% on 21 days. If it passes the FAA specs than it could be approved for DOT projects.
- 8 counties in the central part of the state where we know there is risk of ASR with quarried material only.
- BTS lab technician to perform this test still needs to learn the procedure and gain proficiency with the mortar bar test.
- ACTION: Move this to an ASR specific subcommittee to work on spec changes, find method to use FAA data, consult with BOA, discuss the TFAST test.
 - UW-P and UW has access to the tfast test equipment needed for the test.
 - Potential ASR Subcommittee Members: Erik Olson, Jr. Ramthun, WCPA (Kevin), BOA rep, Tom Sweeney, Jim Parry, Mike Hammet

from Triweiler Mark Kray, Dan Reid, Tirupan Mandal (Chair), Adam Albers.

5. Virgin aggregate on top of RAP (**Ramthun**)

- Section 305.2.1 describes the use of virgin over RAP.
- Industry would like more ways to use RAP.
- Subcommittee is brainstorming methods to improve the use of virgin over RAP without having performance issues.
 - Sliding between RAP and virgin
 - ❖ Scarifying the rap before placing virgin.
 - Permeability issue. Needs to be addressed.

6. Aggregate quality round robin (**Albers**)

- The issue with the RR samples was presented and discussed.
- Sample issues are being addressed by provided a raw sample that will need to be dried and screened by participating lab, and more material will be provided so there is enough to run all tests.

7. Base compaction job (**Lyngdal/Mandal**)

- We've maximized the number of HMA projects that we want the base compaction spec on. Next step is getting it on a concrete job.
- Looking for mainline concrete jobs to test the base compaction stsp in 2023 or 2024.
- ACTION: Need to get it into the PSE now so it's in the bid letting process.
- If it's found that there are no issues, then we can increase the use of that spec.
- Avoid doing a change order to a current project.
- Kevin will look into contracts coming down the pipe that meet our criteria and discuss their merits for the purpose.

8. Spec re-org (**Lyngdal**)

- Erik presented general structure of the re-org draft.
- ACTION: Establish taskforce to review reorganized spec and meeting quarterly.

- Potential review members: Paul Minneti, Erik Olson, Mike Kleist. Adam Albers (chair), Josh Seaman, others.
9. Tech team charter update (**Mandal**)
- Hybrid meetings going forward.
 - Add virgin on RAP research as a goal.
 - Box folder location will be shared with committee members.
10. WHRP Freeze-Thaw project (**Mandal**)
- Summary presentation in next meeting after the final report if released.
11. MSE Wall Backfill Tests (**Minneti**)
- AASHTO T 291 and AASHTO T 288
 - Test showed varying results depending on how the material size was reduced. When processed from a clear stone to a P10 there was too much surface area, and they were more likely to fail the chloride and resistivity test. When tested as-is (as it would be placed) they passed those tests.
 - Currently impacting 3 jobs.
 - The test is designed for soil and not aggregate. There isn't a specific aashto test for aggregate.
 - ASTM G57, needs an as-placed sample and could serve as a replacement.
 - WHRP project to investigate performance of in-service MSE wall is beginning soon and should be considered while addressing this topic.
 - ACTION: assemble a MSE wall subcommittee to address the science and engineering implications of these tests.
 - Potential members: Dan Reid (chair), Paul Menneti, Hans, Paul Eggen, Andy Zimmer, others.
12. Lucky strike extras
13. Next meeting
- Hybrid: March 22, 2022.