

WACA/WSDOT Meeting Minutes for Wednesday, June 12, 2013

Mike Polodna, WSDOT	Kurt Williams, WSDOT	Anthony Sarhan, FHWA
Robert Raynes, Cemex	Scott Diloreto, BASF	Tamson Omps, CalPortland
Neil Guptill, CalPortland	John Harris, Lafarge	Craig Matteson, Oldcastle
Bruce Chattin, WACA	Keith Muhich, Miles Sand & Gravel	

Location: *WACA's Office in Des Moines*

Next WACA Meeting Date:

Wednesday, Sept 11, 2013 at WSDOT HQ Mats Lab, Main Conf Room, 9:30 AM –12:00 Noon

Future WACA Meetings Dates:

Wednesday, December 11, 2013 at WACA's Office in Des Moines, 9:30 AM – 12:00 Noon

Note that this meeting has been moved to the 2nd Wednesday of the month.

Wednesday, March 5, 2014 at WSDOT HQ Mats Lab, Main Conf Room, 9:30 AM –12:00 Noon

Wednesday, June 11, 2014 at WACA's Office in Des Moines, 9:30 AM – 12:00 Noon

Note that this meeting has been moved to the 2nd Wednesday of the month.

Meeting Minutes are available at:

<http://www.wsdot.wa.gov/Business/MaterialsLab/WACAMinutes.htm>

Issue: Standard Specification 9-23.8 Waterproofing –Jason Brewer/Scott Diloreto

Are changes needed to this specification? Should WSDOT be specifying ASTM C 1585 instead of ASTM C 642?

6/12/13 – Scott and Mike will work on the specification and send to WACA for review at the next meeting.

3/6/13 – Neither Jason or Scott were in attendance so the issue was tabled. Bruce Chattin will contact them.

12/12/12 – Scott reported that the WSDOT concerns with the proposed specification require further review.

9/5/12 – Mike Polodna had some concerns regarding the BASF proposed specification for waterproofing. Scott Diloreto will review his concerns and address at the next meeting.

Action Plan: Continue the discussion at the next meeting or drop from the agenda.

Issue: Trial Batches for Concrete Overlay Mixes in WSDOT 6-09.3(3)B & C – Rob Shogren

The original concern about trial batches has been resolved. The remaining issue is whether a slag overlay will be included in the specifications.

6/12/13 – John Harris will forward Monica Jones’s thesis on slag overlays to WSDOT to aid in the decision on adding slag overlays to the standard specifications.

3/6/13 – WSDOT will discuss internally to determine how to proceed.

12/12/12 – Prior to today’s meeting, Mark Gaines reported to Mike Polodna that he was not able to get a copy of the CTL report. At the time this was discussed, no representative of the WSDOT Construction Office was present and the topic was tabled until next meeting.

9/5/12 – John Harris reported that there was no debonding on the SR 97 Omak and Tonasket projects. Mark Gaines was not in attendance to provide more information on the reported debonding on the Nalley Valley overlay.

6/13/12 – There was discussion regarding the reported debonding along a joint between adjacent lanes on a slag overlay job completed last year. Rob Shogren requested a copy of the CTL report.

Action Plan: Continue the discussion at the next meeting.

Issue: Acceptance of Pumped Concrete – Bruce Chattin

It is well known that pumping can change the air content of the concrete. WSDOT requires that sampling be conducted from the end of the delivery system, after the concrete is pumped, and leaves it to the contractor to determine how to get it there within the required specification.

6/12/13 – Two handouts from the 4/19/13 AGC & WACA Tech Committee Meeting were distributed (see attached). Bruce gave an update on the meeting. Bob Raynes reported that they had a good discussion with the pumpers. WACA will identify variables from the summer 2013 pumping season and develop a “best practices” list for discussion at the September AGC meeting. Bruce reported that Stuart Bennion was looking into research to test the air in hardened concrete and is working to secure funding.

3/6/13 – Stuart will put this issue on the agenda of the next AGC meeting and WACA members will attend to discuss this with them. The meeting is scheduled for April 19 at the WSDOT Corson Ave office. Craig Matteson, Bob Raynes, Dave Germer, and Keith Muhich will be attending.

12/12/12 – Stuart Bennion is the new WSDOT Construction Office representative and we spent some time updating him on the issue. Stuart asked that WACA present their argument for changing the specification at the next WACA meeting. If he determines that WACA has a good argument then he would get WACA on the next AGC/WSDOT agenda. WACA agreed to prepare their argument and present it at the March WACA/WSDOT meeting.

Action Plan: Continue the discussion at the next meeting.

Issue: WSDOT Standard Specification 1-06.3 Manufacturer's Certification of Compliance – Greg McKinnon

Greg McKinnon of Stoneway Concrete inquired if the "corporate official" part of this specification applies to concrete.

The Manufacturer's Certificate of Compliance must identify the manufacturer, the type and quantity of material being certified, the applicable Specifications being affirmed, and the signature of a responsible corporate official of the manufacturer and include supporting mill tests or documents. A Manufacturer's Certificate of Compliance shall be furnished with each lot of material delivered to the Work and the lot so certified shall be clearly identified in the certificate."

6/12/13 – Kurt Williams inquired about commercial concrete and all agreed that would be a truck ticket only with no signature. Manual plants would require a signature. Anthony Sarhan will check what other states are doing with Minnesota a possibility. Kurt will edit the spec with the goal of getting it into the 2014 book in January.

3/6/13 – Mike presented an edited version of the proposed specification for review. All in attendance agreed on the language in this version of the specification.

12/12/12 – The topic was tabled to give WSDOT more time to review the proposed specification change.

9/5/12 – WACA will develop and submit to WSDOT specification language allowing no signature on fully automatic plants. Semi-automatic and manual plants will not be included in the proposal.

Action Plan: Continue the discussion at the next meeting.

New Issue: Type S Admixtures – Kurt Williams

WSDOT is considering limiting approval of Type S Admixtures to ASR-mitigating, viscosity-modifying, shrinkage-reducing, rheology-controlling, and workability-retaining admixtures.

6/12/13 – Mike emailed the proposed spec change (see attached) to WACA on 4-17-13 and received no negative comments. The spec will be implemented as proposed.

3/6/13 – Kurt will write a specification for review by WACA.

Action Plan: Topic concluded.

New Issue: Cement Acceptance Program – Kurt Williams

WSDOT is updating the CAP program to include project-specific sampling and testing.

6/12/13 – Testing will occasionally be conducted on samples taken from concrete facilities. WSDOT will meet with cement producers in July to go over recent issues since WSDOT began testing cement with the XRF.

3/6/13 – Kurt stated that WSDOT requirements for monthly mill certs and quarterly samples must be met and that WSDOT will begin project sampling on a random basis.

Action Plan: Topic concluded.

Discussion Topic: Kurt Williams reported that WSDOT will be reviewing the tolerances allowed for concrete aggregate and may make changes to bring in conformance to industry standards.

Discussion Topic: Bruce Chattin requested that WACA be in the loop on the LEAN process. Kurt stated that he will involve WACA as he gets involved with any issues.

Discussion Topic: Bruce Chattin inquired on the status of ASTM C 595 Type IL cement being approved by WSDOT. Kurt replied that WSDOT is awaiting additional research results on potential for sulfate attack.

**4/19/13: WSDOT / AGC & WACA Tech Comm:
Sampling & Acceptance in Pumped Concrete**

Premise of discussion:

Industry concerned with exposure and liability for rejected loads, cost of acceptance testing, current testing and sampling practices, condition of pump trucks and operators that can adversely affect concrete properties at end of pump. WSDOT requires very specific QA assurance on mixes, trucks, plants, QC testing, but allows any pump in any condition to be used. Contractor elects method of conveyance, industry becomes responsible for making adjustments.

Points of collaborative discussion:

- Having the discussion is a first step; positive
- Define what the issue is to us
- Identify concerns with specs, with sampling being done, equipment on job
- Examples of how it effects us
- Identify possible solutions: change spec (not likely), we hire pump trucks (not likely),
- Pre cons- (RM "required" to be invited) advance pumping discussions at that meeting
- identify spec language that assigns quality acceptance practice, acceptance or sampling prerequisites- are they being followed ?
- Assign shared responsibility for making adjustments
- Identify construction practices of concern
- Identify preferred or best practices for sampling and testing parameters
- Provide review of certified pumps equipment and operators: Per ACPA list; not many around state. Criteria in which certification is issued primarily centered around safety, safe operations, hose whipping, equipment as it relates to types of mix designs, operation and maintenance. Not on affects of pumping on product characteristics.
- Provide a collaborative approach to suggested solutions or remedies
- Stuart eventually would like to educate the overall industry in whatever solutions are accomplished

Suggested approaches may include

- Identify examples of good sampling / bad sampling, good pump / bad pump based on operating condition
- Identify concerns with sampling variances due to pump angles, bridge geometry, multiple pumps on job, pump positioning etc.
- Be able to identify good operating conditions for pump equipment
- Consider this summer; pilot program to evaluate live projects and practices and establish one or two controls of agreed upon / implemented and improved practices.
- Provide suggested language changes

Testing Pumped Concrete for Bridge Decks

1. Deck pre-placement meeting should be used to clearly identify who is responsible for the “in-place” properties of the concrete. The R/M supplier can only control the concrete up to the discharge of the truck mixer (end of chute). Contractors need to have a plan as to how to manage changes to the concrete mix with their method of placement. The R/M supplier can work in cooperation with the contractor to deliver a concrete mix that is either within or other than the acceptance tolerances for slump and air content with the understanding that the properties of the concrete will be changed by passing through the pumping system. However, the R/M supplier cannot be held responsible for variables outside of their control.
2. Pre-testing the concrete prior to actually placing bridge deck is very informative to the contractor to determine the input into pump properties required to achieve the correct concrete properties after pumping onto the deck. The contractor should use the same pump for the pre-placement test as actual deck placement.
3. It is recommended to start the process by delivering in- tolerance concrete (as near to middle of range for slump and air content) and determining if the slump and air content increase or decrease through the pump.
4. The boom angle for pre-test should represent actual placement conditions.
5. Pre-test should include priming the pump as per intended for actual placement.
6. Determine volume of concrete to clear line of primer materials. Pump priming material should not contaminate concrete for acceptance testing.
7. Pre-test should include pump input and output testing for slump and air content. If slump or air content increases try to establish why. Typically you would expect air and slump to decrease through the pump. Water box?
8. Establish expectation for loading sequence and spacing for placement. Batch one or two loads initially to make adjustments prior to production batching. Allow time for testing, admixture adjustments, remixing, clearing pump line, sampling and retesting first two loads. Inadequate spacing resulting in stacking trucks on jobsite will affect properties of the concrete; which can result in variable results and unnecessary lost loads.
9. Have adequate labor to procure sample efficiently. Train sampling personnel appropriate procedures for representative sampling.

10. Establish how samples are going to be obtained; sample should be from uninterrupted flow. Concrete should not be sputtering or stopped pump. A smooth flow of output concrete will increase likelihood of consistent results. Both wheelbarrows of concrete (Contractor's & WSDOT) should be procured together without interruption.
11. If agreed, initial acceptance testing for slump, temperature and air content can be shared or run concurrently by contractor's ACI certified technician and WSDOT personnel to speed up the process and lessen delays of production of concrete.
12. Establish where testing is going to be set up. Samples should be initially stored in an area free of vibration. Samples should be cured in proper curing conditions.