WACA/WSDOT Meeting
Minutes for Wednesday, June 13, 2012

Attendees:

<table>
<thead>
<tr>
<th>Mike Polodna, WSDOT</th>
<th>Rob Shogren, Lafarge</th>
<th>Steve Ford, Miles Sand &amp; Gravel</th>
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<tr>
<td>Allan Kramer, Lehigh NW</td>
<td>Robert Raynes, Cemex</td>
<td>Eric Clark, Corliss</td>
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<td>Tamson Omps, CalPortland</td>
<td>Dave Germer, CalPortland</td>
<td>David Burg, Ashgrove</td>
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<td>Craig Matteson, Oldcastle</td>
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Location: WACA Office in Des Moines

Next WACA Meeting Date:
Wednesday, September 5, 2012 at WSDOT HQ Mats Lab, Main Conf Room, 9:30 AM – 12:00 Noon

Future WACA Meetings Dates:
Wednesday, December 12, 2012 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 6, 2013 at WSDOT HQ Mats Lab, Main Conf Room, 9:30 AM – 12:00 Noon
Wednesday, June 12, 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.

Meeting Minutes are available at:
http://www.wsdot.wa.gov/Business/MaterialsLab/WACAMinutes.htm

Issue: Degradation for concrete Aggregate/Base Course – Kurt Williams
A research study is on-going to test the effect of using aggregate with low degradation values in concrete mixes.

6/13/12 – Mike Polodna reported that the draft report has been reviewed and WSU is working on some revisions.

Action Plan: Continue to give updates at quarterly meetings.

Issue: Water for Concrete – Kevin Wolf (for Bob Raynes)
WSDOT Standard Specification 9-25.1 Water for Concrete requires that in order to use recycled water the lab that tests their water must meet R-18. No one is currently using recycled water because of the R-18 requirement.

6/13/12 – Further discussion was held regarding the maximum water density requirement of 1.03 g/ml. Bob Raynes spoke in favor of setting the maximum at 1.03. Allan Kramer also supported that limit, and no one spoke against it. WACA members wanted to review Sections 5 and 6 of AASHTO R-18 before moving forward with the specification.
Action Plan: Continue the discussion at the next meeting.

Issue: Standard Specification 9-23.8 Waterproofing – Jason Brewer
Are changes needed to this specification? Should WSDOT be specifying ASTM C 1585 instead of ASTM C 642?

6/13/12 – Jason was not in attendance. Comments on this specification should be sent to Scott DiLoreto prior to the next meeting.

Action Plan: Provide WSDOT and WACA comments at the next meeting.

Issue: Trial Batches for Concrete Overlay Mixes in WSDOT 6-09.3(3)B & C – Craig Matteson
Discussion on prescriptive mixes in 6-09.3(3)B and C. Both these mixes are prescription designs right down to the coarse & fine aggregate ratios, cement contents and W/C ratios. Are we required to run a trial batch for 5-28 day compressive results, as there is no compressive strength specified?

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: Qualification of Concrete Suppliers and the NRMCA – Kurt Williams
Colin Lobo of the NRMCA has contacted WSDOT regarding WSDOT Standard Specification 6-02.3(4)A Qualification of Concrete Suppliers, and the use of the NRMCA Plant Certification checklist by people other than those working through the NRMCA. WSDOT proposes deleting options 2 and 3 of the specification and allowing certification only through the NRMCA.

6/13/12 - Mike Polodna reported that a WSDOT checklist is in development and will be submitted to WACA for review once complete.

Proposed Specification:

6-02.3(4)A Qualification of Concrete Suppliers

Batch Plant Prequalification may be obtained through one of the following methods:

1. Certification by the National Ready Mix Concrete Association (NRMCA). Information concerning NRMCA certification may be obtained from the NRMCA at 900 Spring Street, Silver Springs, MD 20910 or online at www.nrmca.org. The NRMCA certification shall be valid for a 2-year period from the date of inspection. When this method of certification is used the following documentation shall be submitted to the Project Engineer.
   a. A copy of the current NRMCA Certificate of Conformance, the concrete mix design(s) (WSDOT Form 350-040), along with copies of the truck list, batch plant scale certification, admixture dispensing certification, and volumetric water batching devices (including water meters) verification.

2. Independent evaluation certified by a Professional Engineer using WSDOT Concrete Batch Plant Inspection Checklist (DOT Form 350-010). The Professional Engineer shall be licensed under title 18 RCW, state of Washington, qualified in civil engineering. The independent certification using the WSDOT Concrete Batch Plant Inspection Checklist shall be valid for a 6 month period from the date of inspection. When this method of certification is used the following documentation shall be submitted to the Engineer.
a. A copy of the Professional Engineer’s stamped and sealed WSDOT Concrete Batch Plant Inspection Checklist, the concrete mix design(s) (WSDOT Form 350-040), along with copies of the truck list, batch plant scale certification, admixture dispensing certification, and volumetric water batching devices (including water meters) verification.

**Action Plan:** The spec change is on hold until the WSDOT checklist can be completed.

**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.*

6-13-12 Bruce was not in attendance and the topic was tabled until his next meeting.

3-7-12 There was further discussion of the topic. WSDOT stated their intention of continuing to test at the end of the pump. The March, May, June, and July 2003 AGC/WSDOT Structures Team Meeting minutes indicate that the requirement for pumper certification was discussed and it was removed from the WSDOT Standard Specifications at that time. The reasons stated were that it had not been enforced and that it added no value to the quality of the concrete.

**Action Plan:** Table until Bruce Chattin’s next meeting. WACA to develop a specification that includes requirements for prequalified pumpers and equipment for WSDOT review. WACA will meet with AGC to discuss the topic. Continue discussion at the next meeting.

**Discussion Item: 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."

6-13-12 Bruce and Greg were not present to state whether Mike’s response satisfied their concerns. Craig Matteson would like to delete the requirement to have the forms signed.

3-7-12 Mike Polodna distributed copies of WSDOT Standard Specification 6-02.3(5)B Certification of Compliance and explained that it is the specification that applies to concrete, not 1-06.3 above. The requirement is for a signature “… by a responsible representative of the concrete producer, affirming the accuracy of the information provided”. Bruce Chattin will forward the handout to Greg McKinnon to determine if this satisfies his concerns on this issue.

**Action Plan:** Continue the discussion at the next meeting.
New Issue: Aggregate Source Approvals for Sources to be Blended with Others – Dick Boss
An Aggregate Source Approval is required for each pit. Since WSDOT is now sampling and
testing only processed material instead of pit run or blended material, source owners have issues
supplying samples of processed, non-blended aggregates.

6-13-12 Dick was not in attendance and the topic was tabled until his next meeting.

Action Plan: Table the topic until Dick’s next meeting.

New Issue: LEAN Process – Kurt Williams
LEAN is an improvement system and philosophy that will help us deliver excellent services and
programs. WSDOT is asking for WACA to identify opportunities where we can maintain value
with a reduction in cost.

6-13-12 The following suggestions were made:

- Concrete mix design submittals could be centralized to greatly reduce the paperwork
  required for each contract and to provide uniformity in the approval process.

- Instead of conducting sampling and testing of aggregate stock piles on each project,
  combine the efforts and apply the results to multiple projects.

- Reduce the frequency of testing.

- Use the ODOT process to control information. WACA will email further information on
  this to Mike.

- Use the design/build QC/QA/QV process on all projects.

- Eliminate having WSDOT inspectors verifying batch tickets by recalculating batch
  weights on their own computers. Industry’s batch tickets are computerized and do not
  make computation errors.

- Uniformly enforce the requirement for providing RAMS for items already on the QPL.
  Some PEOs require this and others do not.

Action Plan: WSDOT will forward suggestions for consideration. Topic concluded.

New Issue: 4000A and 4000D Mixes with Slag and Fly Ash – Kurt Williams
WSDOT SS 6-02.3(2) Proportioning Materials inadvertently allows up to 40% cement
replacement when both slag and fly ash are used in a mix. Are there any concerns with changing
the specification back to the intended 30% maximum? Can any WSDOT projects be identified
where we have used 40% replacement?

There were no WSDOT projects identified where 40% replacement was used in 4000A or 4000D
mixes. Rob Shogren reported that 30% slag and 10% fly ash was used at Fairchild AFB. Tamson
Omps reported that the Corp of Engineers uses up to 50% slag, and that they used 30% fly ash at Lewis/McChord.

One concern with limiting replacement to 30% is that it may not be enough to mitigate for ASR.

Action Plan: WSDOT to consider revising specification to limit cement replacement to 30% for 4000A and 4000D mixes and will report back at the next meeting.