WAQTC EXECUTIVE BOARD SPRING MEETING MINUTES

MEETING CALLED BY: GREG STELLMACH,

CHAIR

FACILITATOR: GARTH NEWMAN, QAC

CHAIR.

ATTENDEES:

RECORDER: DESNA BERGOLD, COORDINATOR

ABSENT:

Noon

GREG STELLMACH, CHAIR, ODOT
MIKE SAN ANGELO, AKDOT & PF

GARTH NEWMAN, QAC CHAIR BRIAN IKEHARA, HDOT

BILL SCHIEBEL, CDOT MIKE SANTI, ITD

MATT STRIZICH, MDT

JAMES GALLEGOS, NMDOT

SCOTT ANDRUS, UDOT MICHAEL VOTH, CFLHD

DAVID JONES, WSDOT HOWE CROCKETT, WFLHD

JOHN BILDERBACK, ITD SEAN PARKER, QAC VICE CHAIR

RANDY MAWDSLEY, WSDOT INVITED GUEST:

CASEY SONEIRA, AMRL

DATE: APRIL 10^{TH} AND 11^{TH} , 2017

TIME: 1:00 PM TO 5:PM AND 8:00 AM TO

LOCATION: VANCOUVER, WASHINGTON

AGENDA ITEMS / OBJECTIVES:

1. Report on outstanding 2015 AASHTO proposals

- a. R 25; Technician and Qualification Programs (TS 5c) Champion Scott Andrus
- b. *T 11; Materials Finer Than 75-μm (No. 200) Sieve in Mineral Aggregates by Washing* (1c) Champion Greg Stellmach– *task force* report Garth Newman

2. Report on 2016 AASHTO proposals

- a. *R XX; Sampling Aggregate Products* Champions Mike San Angelo and Greg Stellmach (TS 1c) returned to QAC
- b. *T 23; Making and Curing Concrete Test Specimens in the Field* (TS 3c) Champion Greg Stellmach
- c. T 99, Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop (TS 1b) Champion Garth Newman
- d. T 121; Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete (TS 3b) Champion Scott Andrus
- e. T 152; Air Content of Freshly Mixed Concrete by the Pressure Method (TS 3b) Champion Scott Andrus
- f. T 176; Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test (TS 1a) Champion Bill Schiebel
- g. T 180, Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop (TS 1b) Champion Garth Newman

3. 2017 Proposed AASHTO revisions from QAC:

- a. AASHTO T 272; One-Point Method for Determining Maximum Dry Density and Optimum Moisture (TS 1b) oversize reference and report section
- b. *T 355; In-place Density of Asphalt Mixtures by Nuclear Methods* (TS 2c) alternate method

- c. *T 119, Slump of Hydraulic Cement Concrete* (TS 3b)– clarification of removing large aggregate and step method
- d. *T 23; Making and Curing Concrete Test Specimens in the Field* (TS 3c)– removing reference to cardboard molds
- e. RXX; Sampling Aggregate Products (TS 1c) revisions to 2016 proposal
- f. R XX; Sampling Asphalt Mixtures (TS 2c)- new standard practice
- g. T 308; Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method (TS 2c) request AASHTO to editorially change title to Asphalt Materials
- h. TP XX, Determining Constant Mass (unknown) new standard practice
- i. T 113; Lightweight Pieces in Aggregate (TS 1c) response to 2015 balloted revisions
- j. T 209; Theoretical Maximum Specific Gravity (G_{mm}) and Density of Hot Mix Asphalt (HMA)— report of status from 2014 proposal
- k. R 18, Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories (AASHTO Re:Source) revision in 6.7.2.5
- 4. AASHTO revisions list and T 224 Garth
- 5. Process for proposing AASHTO revisions from member agencies that may not be directly related to WAQTC Garth Newman
- 6. Roles and Responsibilities of a QAC Member revision proposal Dan Gettman
- 7. Roles and Responsibilities of an Executive Board Member
- 8. Revision to Administration Manual options
- 9. Style Guide revision Desna Bergold
- 10. AASHTO 'C' method letter responses?

From Fall Teleconference

- 11. T 310 task force Greg Stellmach
- 12. List of SCC test methods for potential module Scott Andrus and Mike San Angelo
- 13. Copyright and Copyright permissions form Garth Newman and Mike San Angelo
- 14. Copyright and the website report Desna
- 15. Reciprocity Questionnaire results and report
 - a. Reciprocity Audits of Member Agencies workplan from planned work
- 16. Who from the QAC will attend the AASHTO SOM meeting?
- 17. New TPF

WAQTC Spring Business

- 18. 2017 Strategic Plan
 - a. Revise 'Evaluate training materials every 5-years' to 'yearly' QAC
 - b. Guidance on 'Evaluate the need for WAQTC training on equipment calibration, standardization and checks process' QAC
- 19. On-line training interest Matt Strizich
- 20. Method to become a member Matt Strizich
- 21. UDOT Learning Portal Scott Andrus
- 22. Partnering with ACPA for training and qualifications Scott Andrus
- 23. Discussions with James Gallegos, NMDOT, and Greg Millburn, WYDOT Greg Stellmach

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Topic	Discussion / Decision	ACTION REQUIRED BY:

Greg Stellmach, ODOT and the Executive Board Chair, called the meeting to order.

Greg Stellmach,	ODOT and the Executive Board Chair, called the meeting to order.	
The meeting beg	gan with a review of the status of AASHTO proposals from 2015 that	at have not been
	tanding 2015 AASHTO proposals	
R 25	R 25; Technician and Qualification Programs (TS 5c) — Champion Scott Andrus, UDOT Revisions were proposed and balloted before the 2015 AASHTO Subcommittee on Materials (SOM) Technical Section (TS) annual meeting. According to the meeting minutes, the revisions were adopted. The adopted revisions are not in the 2016 AASHTO Manual. The meeting minutes stated that Dennis Dvorak (FHWA), the new steward, had additional revisions to be balloted. Scott contacted Curt Turgeon, TS 5c Chair, and Curt supplied the revisions that Dennis will be balloting. The WAQTC revisions were not included. It is unknown why the approved 2015 revisions have not been published. Scott will contract Curt again to follow up. Scott Andrus will contact Curt Turgeon, TS 5c Chair, and Dennis Dvorak, FHWA, to follow up.	SCOTT ANDRUS
Т 11	T 11; Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing (TS 1c) – Champion Greg Stellmach Revisions were proposed and balloted in the TS (members of the TS were balloted) in 2015. There were two no votes. A task force was formed to study the effects of the mechanical washer. Garth Newman, ITD and Qualification Advisory Committee (QAC) Chair, is a member of the task force and reported that a report has been completed and the revision has been resubmitted for a TS ballot. Greg volunteered to find out when the ballot will be sent and inform the Board. Greg Stellmach will find out when the revisions will be balloted and report.	GREG STELLMACH

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Topic	Discussion / Decision	ACTION REQUIRED BY:

Report on 2016	Report on 2016 AASHTO proposals		
	WAQTC's proposed replacement practice for <i>T 2; Sampling of Aggregates</i> , which is an ASTM method which AASHTO references.		
R XX Sampling Agg.	R XX; Sampling Aggregate Products (TS 1c) was balloted in the TS in 2016. There were several comments and two no votes. The practice was rewritten by the QAC to address these responses. Champion Greg Stellmach sent the new version to Scott Seiter, the TS Chair, and Don Streeter, NYDOT, who had originally voted no. Both reviewed and approved the revised proposal.		
	See 2017 R XX Sampling of Aggregates proposals.		
	T 23; Making and Curing Concrete Test Specimens in the Field (TS 3c), Champion Greg Stellmach		
T 23	Revisions were proposed and discussed at the 2016 SOM TS meeting. The proposed revisions, with an additional revision approved at the meeting, were moved to concurrent ballot (all AASHTO voting members). These revisions are in Release Group 1 (April publication) of the AASHTO manual.		
	No action required.		
	T 99, Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop (TS 1b) — Champion Garth Newman T 180, Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop (TS 1b) — Champion Garth Newman		
T 99 / T 180	WAQTC's proposed revisions to these methods were TS balloted and comments were addressed in the 2016 SOM TS 1b annual meeting. The revisions were moved to full ballot.		
	If approved the revisions should be included in Release 3 (August publication).		
	Garth Newman will follow up on the results of the concurrent ballot.	Garth Newman	

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Topic	Discussion / Decision	ACTION REQUIRED BY:
	T 121; Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete (TS 3b) – Champion Scott Andrus T 152; Air Content of Freshly Mixed Concrete by the Pressure Method (TS 3b) – Champion Scott Andrus	
T 121 & T 152	The revisions to these methods were moved to full ballot at the annual SOM meeting. They were on the mid-year full ballot. Scott recalls that there were some additions and comments.	
	Scott Andrus will follow up on the results of the full ballot.	SCOTT ANDRUS
	T 176; Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test (TS 1a) – Champion Bill Schiebel, CDOT	
T 176	Bill verified that the WAQTC proposed revisions will be included in T 176 in Release 3.	
	No action required.	
AASHTO r	revisions from QAC	<u> </u>
Garth Newn	nan, ITD and QAC Chair presented the 2017 revisions proposed by the	QAC:
	AASHTO T 272; One-Point Method for Determining Maximum Dry Density and Optimum Moisture (TS 1b)	
	QAC proposal:	
T 272	Revisions to include references to T 99 and T 180 when oversized particles are removed while performing the one-point determination and additions and corrections in the Report section.	
	Bill motioned to approve the proposed revisions and submit to AASHTO, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Garth volunteered to champion the proposal.	
	Garth Newman will submit the proposed revisions to James A. Williams, TS 1b Chair.	Garth Newman

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Topic	Discussion / Decision	ACTION REQUIRED BY:
	T 355; In-place Density of Asphalt Mixtures by Nuclear Methods (TS 2c)	
	QAC proposal:	
	Include an alternate method to determine in-place density: a single direction/location with a four-minute test and other editorial revisions.	
T 355	Dave Jones, WSDOT, motioned to approve the proposed revisions and submit to AASHTO, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Dave recommended Kurt Williams, WSDOT, to champion the proposal.	
	Kurt Williams will submit the proposed revisions to Allen H Myers, TS 2c Chair.	KURT WILLIAMS
	T 119, Slump of Hydraulic Cement Concrete (TS 3b)	
	QAC proposal:	
	Revise Section 4.2 in Significance and Use, to clarify removing aggregate retained on the 37.5 mm [1.5 in.] sieve.	
	Revised procedure to have 'Steps' instead of paragraphs.	
Т 119	The proposed steps of the procedure were derived from the WAQTC FOP for this test method. The board noticed that there were some style inconsistencies and proposed corrections.	
	John Bilderback, ITD, motioned to approve the proposed revisions with the Board corrections, and submit to AASHTO, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Scott Andrus volunteered to champion the proposal.	
	Scott Andrus will submit the proposed revisons to Mick Syslo, TS 3b Chair	SCOTT ANDRU

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Topic	Discussion / Decision	ACTION REQUIRED BY:
	T 23; Making and Curing Concrete Test Specimens in the Field (TS 3c)	
	QAC proposal:	
	Remove the final sentence referencing cardboard molds from Section 10.1.2; M 205 does not allow paper molds.	
	Make Note 8 into two paragraphs because it discusses two distinct topics.	
T 23	The board noticed two more references to cardboard molds. These references were removed. All of these revisions could be considered editorial.	
	Dave Jones, WSDOT, motioned to approve the proposed revisions with the board edits and recommend to the TS Chair to revise editorially, and submit to AASHTO if necessary, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays. Motion as edited to recommend to Dave, second Bill, all ayes.	
	Matt Strizich, MDT, recommended Oak Metcalfe, MDT, to champion the proposal.	
	Matt Strizich and Oak Metcalfe will submit revisions to T 23 to Charles A. Babish, TS 3c Chair	MATT STRIZICH OAK METCALFE
	R XX; Sampling Aggregate Products (TS 1c)	
	QAC proposal:	
	Resubmit revisions that address comments from 2016 AASHTO SOM TS ballot.	
R XX Aggs.	Revisions include changing the name to Sampling Aggregate Products, to indicate that the practice is not intended to address sampling at sources or for preliminary site investigations.	
	Adding reference to ASTM D 75 for sampling at sites and for preliminary site investigations.	
	Removing definition for Nominal Maximum Size, any accepted definition will result in the same size sample.	

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Topic	Discussion / Decision	ACTION REQUIRED BY:
	John Bilderback motioned to approve the proposed revisions, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Greg said he would like to remain champion but that he would like to have a backup in case he is unable to attend the AASHTO SOM annual meeting. John will act as co-champion.	
	Greg Stellmach will submit revised new practice to T 272 to Scott Sieter, TS 1c Chair.	GREG STELLMACH
	R XX; Sampling Asphalt Mixtures (TS 2c)	
	T 168; Sampling Bituminous Paving Mixtures is an ASTM method that is referenced by AASHTO (C method).	
	QAC proposal:	
	R XX, Sampling of Asphalt Mixtures, based on a WAQTC Field Operating Procedure.	
R XX Asphalt	The board made editorial revisions to the proposed practice.	
	Scott Andrus motioned to approve the proposal with the board edits, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Scott volunteered to champion the proposal.	
	Scott Andrus will submit the proposed new practice to Allen H. Myers, TS 2c Chair	SCOTT ANDRUS
	T 308; Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method (TS 2c)	
T 308	The QAC requests that the board ask AASHTO to change Hot Mix Asphalt (HMA) to Asphalt Mixtures editorially in the title and throughout the method.	
	The board agreed, Bill volunteered to follow up.	
	Bill Schiebel will ask Allen H. Myers, TS 2c Chair to make editorial revisions.	BILL SCHIEBEL

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Topic	Discussion / Decision	ACTION REQUIRED BY:
	TP XX, Determining Constant Mass (unknown)	
	Many AASHTO procedures and methods refer to 'constant mass' without a process to achieve the condition. The proposed practice gives guidance for 'determining constant mass.'	
	The board reviewed the proposal. They indicated that as this is proposed as a Provisional Standard Practice, not a Standard Method of Test, it should have the designation 'PP' as opposed to 'TP.'	
TP XX	Bill Schiebel motioned to approve the proposal with the change to PP, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	The board did not know to which Technical Section the practice should be proposed. Casey Soneira, AASHTO Resource, may be able to help. Scott volunteered to talk to Casey about the next step. If he cannot reach Casey, he will speak to Bob Lutz, AASHTO Resource, who he will be contacting on another matter.	
	Scott Andrus will contact AASHTO Resource to determine the next step for this proposal.	SCOTT ANDRUS
	T 113; Lightweight Pieces in Aggregate (TS 1c)	
	Revisions to this method were originally proposed and TS balloted in 2015. There were two no votes and the proposal was returned to the QAC for revisions.	
T 113	Sean Parker, ODOT and QAC Vice Chair, forwarded the most recent revisions to Ron Horner, ND, who had voted no and he indicated that he agreed with the revisions.	
	Dave Jones, WSDOT, motioned to approve the proposed revisions and submit to AASHTO, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Greg volunteered to remain as champion.	
	Greg Stellmach will submit the proposed revisions to T 113 to Scott Sieter, TS 1c Chair	GREG STELLMACH

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Торіс	Discussion / Decision	ACTION REQUIRED BY:
	T 209; Theoretical Maximum Specific Gravity (G _{mm}) and Density of Hot Mix Asphalt (HMA)	
T 209	Revisions to this method were originally proposed at the 2014 annual meeting and moved to TS ballot. The response to the ballot led to the formation of a task force, of which Garth is a member. Garth reported that the task force has made additional revisions and corrections to WAQTC's original proposal and may be balloting the result in 2017.	
	Garth Newman will determine if the proposals will be balloted in 2017, and report.	Garth Newman
	R 18, Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories (AASHTO Resource)	
	QAC proposal:	
R 18	Revise section 6.7.2.5 to read: 'Deviations from, additions to, or exclusions from the referenced test method.'	
	Dave Jones, WSDOT, motioned to approve the proposed revision and recommend to the TS Chair to revise editorially, and submit to AASHTO if necessary, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Dave volunteered Kurt to champion the proposal.	Kurt
	Dave Jones and Kurt Williams will submit the proposal to Robert Lutz, AASHTO Resource.	WILLIAMS DAVE JONES
AASHTO revisions list	In the 2017 Edition of the AASHTO Materials Web Publication, the Revision History Standards list indicates that <i>T 224; Correction for Coarse Particles in the Soil Compaction Test</i> , was discontinued in 2015 and under 'Reason Discontinued' it states, 'Lack of use (ASTM D4718 can be used instead).'	
and T 224	This statement is incorrect. T 224 was discontinued because the method was made an Annex to T 99 and T 180. There should be direction to use the Annexes instead of an ASTM method.	

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Topic	Discussion / Decision	ACTION REQUIRED BY:
	Matt volunteered Oak to discuss a correction with AASHTO and AASHTO publications.	
	Oak Metcalfe will ask AASHTO Publications to correct the entry.	OAK METCALFE
	Garth asked the board if WAQTC should establish a process for member agencies to seek WAQTC's support in revising AASHTO test methods and practices that may not be commonly used and proposing new test methods.	
	The board agreed that this is one of the benefits of WAQTC membership.	
	The board discussed possible processes for seeking such support.	
Process	Matt thought that this support was already part of being a member. He suggests that the interested agency should draft revisions and propose them to the QAC. Garth suggested that in some cases a coalition could be formed to address the first or second draft.	
	Some revisions / proposals may need to be presented to the board to determine further steps, such as the formation of a task force.	
	Bill motioned to have Desna draft a process and present it to the board, motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Desna Bergold will draft a process for seeking WAQTC support in proposing AASHTO revisions and new methods.	DESNA BERGOLD
Roles and Res. QAC	The QAC proposed revising the approved <i>Roles and Responsibilities of a QAC Member</i> . In the 'Meeting Specific Expectations,' one of the expectations is 'attend a meeting in person or electronically.' They would like to strike the 'or electronically.' Electronic attendance to a five-day working meeting is not viable and should not be suggested. The board agreed that as attendance in person is preferred it would be good to remove the other option.	
	Revision to the Roles and Responsibilities of a QAC Member is approved. Desna Bergold will incorporate the revision into the Operations Manual.	DESNA BERGOLD

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Торіс	Discussion / Decision	ACTION REQUIRED BY:
	Garth pointed out that the same language is in the <i>Roles and Responsibilities of an Executive Board Member</i> . The board agrees that although electronic attendance is not the	
Roles and Res. Board	preferred method, it still may be viable for the shorter board meetings. It was determined that the statement should be changed to 'Attend meetings.'	
	Revision to the Roles and Responsibilities of an Executive Board Member is approved. Desna Bergold will incorporate the revision into the Operations Manual.	DESNA BERGOLD
	During the Fall Board meeting, while discussing the proposed <i>Performance Exam Examiner Orientation</i> document, ODOT indicated that they were unable to meet one of the requirements, 'observe all steps' of a performance exams. As the document is consistent with the <i>WAQTC Administration Manual</i> , it was determined that the <i>Administration Manual</i> would need to be revised, not just the examiner orientation document.	
	Sean Parker had volunteered to draft a revision to the Administration Manual that ODOT would be able to meet and submit it to the QAC.	
	Sean proposed on page 9 that	
Admin. Manual	The performance examination will occur in the direct presence of the Examiner;	
	Be revised to:	
	The Examiner will provide direct oversight of the performance examination.	
	The QAC discussed this at length during their Winter meeting. Garth and Randy Mawdsley, WSDOT and QAC member, summarized the QAC discussions for the board.	
	The discussion focused on how to allow variations while still defining a process that is legally defensible.	

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Topic	Discussion / Decision	ACTION REQUIRED BY:
	The QAC proposed language is:	
	The performance examination will occur in the direct presence of the Examiner or the combination of performance samples and Examiner oversight at an Agency qualification facility.	
	With an additional section further defining what 'performance samples' and 'Examiner oversight.'	
	Although most members of the board agreed that Oregon's proposal is reasonable, Matt disagreed, he believes "direct presence" is more distinct. If it is changed to "direct oversight", it may open the interpretations up.	
	The board decided that the QAC proposed language should be	

approved with slight revisions.

New language: The performance examination will occur in the direct presence of the Examiner or the combination of performance samples and Examiner direct oversight at an Agency designated qualification facility.

Bill Schiebel motioned to approve incorporating the revised language in the Administration Manual, the motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.

With the language for the *Administration Manual* approved the Performance Examiner Orientation document was revised from 'Observe all steps.' To 'Verify all steps.'

Bill Schiebel motioned to adopt the *Performance Examiner* Orientation, the motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.

Desna will make the approved revisions to the Administration Manual.

The Performance Examiner Orientation is adopted for inclusion in the Operation Manual.

DESNA BERGOLD

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Topic	Discussion / Decision	ACTION REQUIRED BY:

Partnering with ACPA for training and qualifications	Scott wanted to discuss the possibility of allowing another agency, specifically American Concrete Pavement Association (ACPA) to conduct training using WAQTC training materials and assist in administering performance exams. WSDOT and ITD discussed how their agencies contract with and use consultant firms to train and conduct performance exams, and the steps taken to protect WAQTC's copyright. Scott thanked them for the information. No action required.	
Reciprocity Questionnaire results and report	While discussing the above agenda item the board reviewed the Reciprocity Questionnaire report. It contains information on member agencies' administration of the written exam and use of consultant firms for training. 'Develop a work plan for Reciprocity Audits of Member Agencies' is on the list of 2017 Planned Work. The frequency and distribution of the Reciprocity Questionnaire still needs to be finalized. Desna Bergold will put this on an agenda for the upcoming August meeting.	Desna Bergold
Style Guide revision	The QAC decided to reorganize the training documents' electronic files. The WAQTC Style Guide needs to be revised to reflect this. The QAC would like the board's approval of revisions to the Style Guide. The board approved. Desna Bergold will revise the Style Guide to reflect approved file reorganization.	Desna Bergold
AASHTO 'C' method letter responses?	This agenda item was tabled due to time constraints. This will be an agenda item for August meeting.	DESNA BERGOLD
T 310 task force	Greg has been in discussions with the Chair of TS 1b, James Williams, and intends to reopen the task force. Greg Stellmach will follow up on the T 310 task force	GREG STELLMACH

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Topic	Discussion / Decision	ACTION REQUIRED BY:	
	The board would like to determine what would be necessary to develop qualifications for SCC testing. As WAQTC qualifications are focused on field testing and not mix designing, field acceptance properties should be addressed. Last year the QAC polled member states to identify the SCC applicable test methods they specify.		
	The material properties that are common to plastic concrete: air content, density, and compressive strength; and SCC specific properties: slump flow and visibility index, a visual rating of the resistance to segregation.		
	The AASHTO methods for measuring air content, density, and compressive strength now contain steps to address SCC:		
	 T 152, Air Content of Freshly Mixed Concrete by the Pressure Method T 121, Density (Unit Weight), Yield, and Air Content 		
List of SCC	 (Gravimetric) of Concrete T 23, Making and Curing Concrete Test Specimens in the Field. 		
Methods	The agencies polled listed ASTM and AASHTO test methods to measure slump flow and visual stability.		
	The AASHTO procedure to measure slump flow and the visibility index are T 347, Slump Flow of Self-Consolidating Concrete (SCC) and T 351, Visibility Stability Index (SCI) of Self-Consolidating Concrete (SCC).		
	For WAQTC to pursue qualification on these methods, the member agencies need to agree that the AASHTO methods will be used for acceptance.		
	The board agreed that member agencies should be polled on using the AASHTO SCC methods for field acceptance.		
	The board asked Desna to draft and send the poll.		
	There was further discussion on whether qualifications for these methods would be incorporated into the current CTT qualification module. Many agencies use ACI or allow ACI reciprocity so adding SCC the WAQTC CTT may not be		

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Topic	Discussion / Decision	ACTION REQUIRED BY:	
	effective. Garth volunteered to find out what, if anything, ASTM and ACI are going to do about SCC testing certifications.		
	Another option is to create an SCC module with CTT or ACI as a prerequisite.		
	Desna will poll member agencies on using AASHTO SCC test methods for field acceptance.	DESNA BERGOLD	
	Garth will determine what ASTM and ACI intend to do.	Garth Newman	
Copyright	Garth revised the copyright statement and drafted a copyright permissions form, he is working with Mike on these documents. Mike is absent, Garth will follow up with him. Garth Newman and Mike San Angelo will continue working on	GARTH NEWMAN MIKE SAN	
	Randy and Dave said WSDOT would like to allow a consultant to use the WAQTC PowerPoints for training. Their consultant	ANGELO	
Copyright permission	trainer, as a WSDOT agent, has signed an agreement to protect the Copyright rules. Garth, as the Copyright Coordinator, believes that this is an		
permission	appropriate use. The board agrees. WSDOT has permission to allow their agent to use WAQTC training materials.		
Copyright and the website	During the 2016 Spring meeting, Desna was asked to determine what is necessary to require acknowledgement of the copyright statement on the WAQTC website before accessing the training materials. She contacted WAQTC's web host and was told that it would take about 3 to 6 hours (at \$150/hour) to require acknowledgement of a copyright statement. The user, using the same browser, would not need to acknowledge again for one year or another predetermined period.		
	The board asked if WAQTC would be able to know who or how many times the copyright statement is acknowledged. Desna did not have that information. Garth responded that legally WAQTC does not need that information; by requiring the		

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Торіс	Discussion / Decision	ACTION REQUIRED BY:
	acknowledgement before access, any misuse would be actionable.	
	This will be decided when the board approves the new copyright statement.	
	No action required.	
	Some agencies are developing some form of on-line training for their own use. Matt will survey the member agencies to determine if any are interested in consolidating this effort under WAQTC.	
	Scott invited Jeff Saddler, UDOT, to call and discuss UDOT's use of the web for training and exams.	
	Jeff said that UDOT has hired a training developer to develop interactive training using WAQTC's materials. They are currently focusing on Concrete (CTT) training and UDOT's Sampling, Reduction, and Density (SRDTT), a UDOT only certification which uses excerpted WAQTC training materials.	
On-line training interest	UDOT hopes to incorporate videos, both WAQTC's and UDOT's, to provide an overview of the test methods before qualification exams and as a reference after obtaining a certification.	
Learning Portal	Technicians will be required to complete the on-line training before being allowed to take the qualification exam.	
	Garth pointed out that training outcomes need to be addressed.	
	Scott said that UDOT is using a learning management system, a Learning Portal, to track training, quizzes, grades, and qualifications.	
	UDOT intends to use the Learning Portal for registration and administration of the written exams on-line. The technician will be provided with a tablet that is connected to the web with access to the portal site. The technician will then be given a code to open the exam, the code is valid once for a prescribed amount of time. UDOT and the Learning Portal are addressing additional exam security.	

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Topic	Discussion / Decision	ACTION REQUIRED BY:
	Scott will discuss the process with board the again before implementation. No action required.	
Other	Jeff also mentioned that the Transportation Curriculum Coordination Council (TC3) developed the <i>Understanding Materials Testing for Inspectors</i> course that was suggested by WAQTC. This course is now available on line. No action required.	
AASHTO SOM	The board needs to decide if the workload requires both the QAC Chair and Vice Chair to attend the 2017 AASHTO SOM annual meeting. Greg feels that it was a very good experience for Sean to attend the 2016 AASHTO SOM annual meeting and that the board should consider both attending even if the workload does not require it. He is afraid, however, that Sean will be unable to get ODOT permission to attend this year. If Sean can't go, perhaps the board should ask Misty Miner, MDT, another QAC member who had shown interest in being Vice Chair, if she would like to attend.	
	Perhaps the board could try to send two members of the QAC to the AASHTO SOM annual meeting whenever possible. The QAC Chair and Vice Chair, or other QAC member. Bill motioned to send at least two QAC members to the AASHTO SOM annual meeting, the motion was seconded. The Chair called for a vote, 6 ayes, 0 nays.	
	Two QAC members, the Chair and Vice Chair or other member, will be asked to attend the AASHTO SOM annual meeting.	
New TPF	Scott reported on the new Transportation Pooled Fund (TPF). He said that WAQTC is nearing the end of the old TPF and everything is getting moved to the new TPF. The old one will be closed soon.	
	No action required.	

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Горіс	Discussion / Decision	ACTION REQUIRED BY:
Strategic Plan	The QAC discussed the Strategic Plan and the 2016 Planned Work during the 2016 Summer meeting. The QAC would like to request that under 'On-going Activities' the item 'Evaluate training materials every 5-years' be revised to read 'yearly' to reflect current practice. The board approved this revision. The QAC also asked for guidance on 'Evaluate the need for WAQTC training on equipment calibration, standardization and checks process.' What would this entail since R 18 and a laboratory's QSM cover this process. Randy said that WSDOT asked about this, in part because he understood that WAQTC has a Laboratory Qualification Program (LQP). The WAQTC website has a page describing the LQP and a section on the Registries page labeled 'Qualified Testing Laboratory Registries,' UDOT's qualified laboratories list is linked. The board decided that the referenced evaluation should not be on the 2017 Planned Work list or as a short-term goal but does not want to delete it from the Strategic Plan altogether. This item will be removed from the Planned Work list and be changed to a 'long term goal.' Discussion of the LQP webpage is tabled due to time constraints. Bill made the motion to revise the Strategic Plan as discussed, the motion was seconded. The Chair called for a vote, 6 ayes, 0 nays. The Strategic Plan will be revised. Desna Bergold will put LQP page on the agenda for the upcoming August meeting.	Desna Bergold
Method to become a member	Matt will send his drafted method to the board members by email. Matt will distribute the drafted Method to Become a WAQTC Member Agency.	MATT STRIZIO

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Topic	Discussion / Decision	ACTION REQUIRED BY:	
DOT discussions	Greg has been discussing WAQTC membership with other Departments of Transportation. He spoke with Greg Millburn, WYDOT, who has decided that they are not interested. He has also been talking to Hames Gallegos, NMDOT. NMDOT had not decided whether to recommit to WAQTC or resign. Greg feels that the board should apply a deadline. The board decided that NMDOT should decide what they are going to do by the AASHTO SOM annual meeting. If they are not in attendance the board will discuss asking for their resignation. Greg also reported on his discussion with Tim Greitert from CalTrans. Tim indicated that they are interested in the work WAQTC does on the national level, and the strong influence WAQTC has developed with AASHTO. Greg Stellmach will inform NMDOT that WAQTC would like them to commit by the AASHTO SOM annual meeting. Greg will continue conversations with Tim Greitert, CalTrans. Bill moved to adjourn the meeting at 12:30 April 11th, the motion was seconded. The Chair called for a vote, 6 ayes, 0 nays. The meeting adjourned.	Greg Stellmach	

Meeting Attachment 1

Scott Andrus SCC comments for meeting:

Proposed Way Forward in WAQTC SCC module

UDOT currently uses the following tests in field acceptance of SCC:

AASHTO T 347 Slump Flow of SCC

AASHTO T 351 Visual Stability Index (VSI) of SCC

AASHTO T 152 Air Content of Freshly Mixed Concrete by Pressure Method (modification to not tap, rod, or vibrate the bowl)

AASHTO T 309 Temperature of Freshly Mixed Concrete

AASHTO T 23 Casting Compressive Strength Cylinders (modification to not tap, rod, or vibrate cylinder as well as filling cylinder from a height 6 inches above the mold top)

Only the T 347 and 351 are not currently covered in the required FOP's for the TTQP certification. Being that both test methods use slump cones, it should not be difficult to create the FOP's along with written and practical exams. A question to be resolved: should these be incorporated into the concrete module or as a stand alone module? UDOT is currently investigating ASTM C 1712 as another field test. As the test unique to SCC expand it would make more sense to cover SCC with its own module.

From: Scott Andrus
To: Desna Bergold

Subject: Fwd: FW: Draft SCC Module Discussion

Date: Monday, April 10, 2017 4:10:06 PM

Meeting Attachment 2

----- Forwarded message -----

From: San Angelo, Michael (DOT) < michael.sanangelo@alaska.gov >

Date: Mon, Apr 10, 2017 at 1:56 PM

Subject: FW: Draft SCC Module Discussion

To: "Scott Andrus (<u>scottandrus@utah.gov</u>)" <<u>scottandrus@utah.gov</u>>
Cc: "STELLMACH Gregory F (<u>Greg.F.STELLMACH@odot.state.or.us</u>)"

< Greg.F.STELLMACH@odot.state.or.us>, "Garth Newman (Garth.Newman@itd.idaho.gov)"

< Garth.Newman@itd.idaho.gov >, "Schiebel, Bill (Bill.Schiebel@dot.state.co.us)"

< <u>Bill.Schiebel@dot.state.co.us</u>>, "<u>Michael.Voth@dot.gov</u>" < <u>Michael.Voth@dot.gov</u>>, "'Mike

Santi' (mike.santi@itd.idaho.gov)" <mike.santi@itd.idaho.gov>, "mstrizich@mt.gov" <mstrizich@mt.gov>, "Gallegos, James M., NMDOT (James.Gallegos@state.nm.us)"

<James.Gallegos@state.nm.us>, "Howe.Crockett@dot.gov" <Howe.Crockett@dot.gov>,

"Jones, David M (<u>JonesDa@wsdot.wa.gov</u>)" <<u>JonesDa@wsdot.wa.gov</u>>, "John Bilderback (<u>john.bilderback@itd.idaho.gov</u>)" <<u>john.bilderback@itd.idaho.gov</u>>,

"csoneira@aashtoresource.org" <csoneira@aashtoresource.org>

Scott:

Last year we had a plant that was fabricating MSE walls and Sound walls concrete panels that included an artist's high relief design. SCC was the method of choice due to the form liners high relief details. During the first two days of panel fabricating Rich thought the mix was segregating, the only way to really determine that segregation existed (the slump flow test didn't help much) was to use the AASHTO PP 58 to make some cylinders, and we made some beams too. We cut the samples in half after they had sufficient strength and found segregation. The result was rejection of the panels and this process gave us enough experience to determined that we needed to beef up our mix design process to include ACI's SCC stability index analyses.

We are revising our SCC mix design process to include ACI's additional step, where once the VMA dosing requirements and design is finalized, ACI has a process where the Engineer overseeing the mix design is required to make specific mix & dosing proportions changes to ascertain the sensitivity of mix design to stability. The goal of ACI's SCC stability index requirement is to make sure the plant production margins for error will not cause instability/segregation (in essence we don't want mix designs that

are on the ragged edge of instability). We also saw a need for additional mix design photos of the slump flow testing, that clearly showed both stability as well as a instability (HVSI, etc.) so as to provide a mix design specific photographic record that then could be used by the technician for comparisons in the field. (A SCC test report that allowed for field slump flow photos helps support compliance as well as non-compliance when compared to mix design slump flow photos)

As per Rich's (State QA Engineer) comments below we suggest that the mix design process (stable mix & unstable mix determined during the sensitivity analysis) include ASTM C1712 test values, so as to make the rapid determination of static segregation useful and relevant to the mix design being produced. One issue we had on that project last year, occurred after we had determining the mix was segregated that caused us to unfortunately have to explain why segregation was a determining factor in rejecting the panels, (does it really matter?) the reason this became an issue was the plant fist challenged us on the spec language saying that 28-day strength & air should be the only determining factor for acceptance or rejection. Once we sited the contract chapter and verse and then successfully explained the engineering reasons as to why "it matters", the next hurdle occurred when the Plant wanted to negotiate a price reduction, and we just said no....but keep in mind our project wanted to consider their A rapid segregation test is valuable tool, but it too needs to be tied to the original mix design or it may not carry any meaningful weight by the Plant when deciding to stopping production to investigate, and when the test values do come up indicating the possibility of segregation, we feel the only way to truly confirm that the SCC Mix is segregated is by using AASHTO PP 58.. The physical "in your face" evidence of cylinders cut in half is hard to argue with, but this takes time. And when the discussion turns to "does it matter that much" which it does, the reply that segregation exists is best supported by the undeniable fact that the mix delivered is <u>not in conformance to the</u> approved mix design. As we all know segregation is detrimental to the thermal isotropic properties of concrete which carries with it a high potential for shorting the products long-term durability though crack initiation and propagation from thermal cycling.

Mike

From: Giessel, Richard S (DOT)

Sent: Friday, April 07, 2017 11:53 AM **To:** San Angelo, Michael (DOT)

Subject: RE: Draft SCC Module Discussion

ASTM C1712, cylinder penetration test for rapid determination of static segregation, looks promising but looking through the method one would need background values from the mix design process tied back to HVSI or some other segregation measure for evaluation of these test values.

From: San Angelo, Michael (DOT) Sent: Friday, April 07, 2017 9:18 AM

To: Giessel, Richard S (DOT)

Subject: FW: Draft SCC Module Discussion

fYI

From: Scott Andrus [mailto:scottandrus@utah.gov]

Sent: Wednesday, April 05, 2017 2:54 PM **To:** Bryan Lee; San Angelo, Michael (DOT) **Subject:** Draft SCC Module Discussion

Bryan and Mike, I've reviewed what we do here at UDOT and summarized what I think a module for SCC might look like. Appreciate any thoughts and corrections. Thanks, Scott

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Scott Andrus

State Materials Engineer

Utah Department of Transportation

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Scott Andrus

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