WAQTC EXECUTIVE BOARD
2020 SPRING MEETING MINUTES

MEETING CALLED BY: JOHN BILDERBACK, CHAIR **COORDINATOR:** DESNA BERGOLD, D B CONSULTING	**DATE:** MARCH 1ST AND 2ND, 2020 **TIME:** 1:00 PM TO 5:PM AND 8:00 AM TO NOON **LOCATION:** COEUR D'ALENE RESORT BEAUTY BAY CONFERENCE ROOM COEUR D'ALENE, ID
ATTENDEES: JOHN BILDERBACK, CHAIR, ITD LARRY ILG, VICE CHAIR, ODOT L. SCOTT NUSSBAUM, TREASURER, UDOT OAK METCALFE, MDT MATT LINNEMAN, NDDOT GARRETT WEBSTER, WSDOT MICHAEL VOTH, CFLHD SEAN PARKER, QAC CHAIR, ODOT DESNA BERGOLD, D B CONSULTING, WAQTC COORDINATOR	**ABSENT:** BRIAN IKEHARA, HDOT MIKE SAN ANGELO, AKDOT & PF CRAIG WIEDEN, CDOT

AGENDA ITEMS / OBJECTIVES:

1. **Report on 2018 AASHTO proposals**
   a. *T 27, Sieve Analysis of Fine and Coarse Aggregate* – John Bilderback and Mike Santi
   b. *T 30, Mechanical Analysis of Extracted Aggregate* – Scott Andrus
2. **Report on 2019 AASHTO proposals**
   a. *R 25, Technician Training and Qualification Programs* (TS 5c) – Scott Nussbaum and Sean Parker
   b. *T 88, Particle Size Analysis of Soils* (TS 1a) – none
   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) – none
   d. *T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete* (TS 3b) –none
   e. *T 176, Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test* (TS 1a) – none
   f. *T 180, Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop* (TS 1b) – none
   g. *T 309, Temperature of Freshly Mixed Hydraulic Cement Concrete* (TS 3b) – Bill Lawrence

h. *T 310, In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)* (TS 1b) – none

3. Proposed AASHTO revisions from QAC:

a. *R 35, Superpave Volumetric Design for Asphalt Mixtures*
b. *T 23, Making and Curing Concrete Test Specimens in the Field*
c. *T 30, Mechanical Analysis of Extracted Aggregate*
d. *T 85, Specific Gravity of Coarse Aggregate*
e. *T 88, Particle Size Analysis of Soils*
f. *T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric of Concrete)*
g. *T 152, Air Content of Freshly Mixed Concrete by the Pressure Method*
h. *T 166, Bulk Specific Gravity (G_{mb}) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens*
i. *T 209, Theoretical Maximum Specific Gravity (G_{mm}) and Density of Asphalt Mixtures*
j. *T 272, One-Point Method for Determining Maximum Dry Density and Optimum Moisture*
k. *T 283, Resistance of Compacted Asphalt Mixtures to Moisture* (TS 2d)
l. *T 308, Determining the Asphalt Binder Content of Asphalt Mixtures by the Ignition Method*
m. *T 312, Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor*
n. *T 329, Moisture Content of Asphalt Mixtures by Oven Method*
o. *T 331, Bulk Specific Gravity (G_{mb}) and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method*

4. From QAC Winter meeting

a. Embankment & Base and In-place Density modules revision
b. FOP for AASHTO R 79 for library (2/18)
c. Self-consolidating Concrete Testing Technician (SCCTT) module
    i. Review of materials
    ii. How to initially qualify technicians
    iii. ASTM C1610 and ASTM C1712
d. Materials Revisions Request Form (2/18)
e. R 60 and TM 2 – Sampling Fresh Concrete

5. From 2019 Fall Teleconference

a. Reciprocity Audit Report – distributed Columbus Day, 2019
b. Laboratory Testing Technician Qualification Module

6. WAQTC 2020 Spring Business

a. Administration Manual and RPIH – update to include NDDOT
b. WAQTC Exam administration and scoring.
c. Reciprocal state actions to WAQTC suspensions.
d. 2020 Strategic Plan (2/25)
e. WAQTC Consultant Contract
f. Pooled fund update – Scott Nussbaum

7. Other items

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
WELCOME	John Bilderback, ITD and WAQTC Executive Board Chair, welcomed the attendees to the meeting. The Executive Board members welcomed Matt Linneman, NDDOT, new WAQTC member.	
	The meeting began with a review of the outstanding proposals of revision to AASHTO Standards.	
REPORT ON 2018 AASHTO PROPOSALS		
T 27	*T 27, Sieve Analysis of Fine and Coarse Aggregates* <u>Status of previous proposal</u> In 2018, WAQTC proposed moving requirements for overloading sieves, shaker time, and sieving efficiency into Annexes. The proposal was revised at the 2019 Annual Meeting to align with changes to T 30. This was balloted on Rolling Ballot 3 to the full Committee on Materials and Pavement (COMP) with no negatives and approved during Mid-Year Webinar. It should be included in Release 3. *Desna will verify that the revision is published.*	DESNA BERGOLD
T 30	*T 30, Mechanical Analysis of Extracted Aggregate* <u>Status of previous proposal</u> In 2018, WAQTC proposed moving discussions of overloading sieves, shaker time, and sieving efficiency into Annexes. These revisions were included in 2019 Release 3. *Discussion item, no action necessary.*	DESNA BERGOLD
REPORT ON 2019 AASHTO PROPOSALS		
R 25	*R 25, Technician Training and Qualification Programs* Champions Sean Parker and Scott Nussbaum <u>Status of previous proposal</u> In 2015, WAQTC proposed revisions to R 25. The revisions included adding references to the Appendixes and corresponding references in the reference section, removing 'flexible' from Section 3.1, and adding 'subordinates' to the Section 7.2, *Examination Controls and Integrity*. The 2015	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	proposed revision were lost and were re-proposed in 2019. According to the COMP Annual Meeting minutes, the revisions will be made by the Chair and are considered editorial. Oak Metcalfe, MDT, tried to find the 2020 Release 1 revision in the AASHTO library and did not find a version that had the revisions. Scott Nussbaum, UDOT and WAQTC Treasurer, volunteered to talk to Curt Turgeon, Technical Subcommittee (TS) 5c Chair, to verify the revisions are on track for Release 1. *Scott Nussbaum will discuss the revision with Curt Turgeon, TS 5c Chair.*	SCOTT NUSSBAUM
T 88	*T 88, Particle Size Analysis of Soils* <u>Discussion item</u> WAQTC informed TS 1a that there were discrepancies in the description and figures for the apparatus. The 2019 Annual Meeting minutes indicate that this would be discussed during the Midyear webinar which was held Jan. 23. Sean Parker, ODOT and QAC Chair volunteered to work with Andy Babish, TS 1a Chair, to remove the discrepancies. Desna pointed out that the QAC are recommending more revision to this method and perhaps the discrepancies can be addressed with them. *See further T 88 discussion under* Proposed AASHTO revisions from QAC.	
T 99/T 180	*T 99, Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop and* *T 180, Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop* <u>Status of previous proposals</u> WAQTC proposed revisions to T 99 and T 180 in 2019. Replacing the variables W and D with ρ to represent density in calculations. This was approved as an editorial revision and should be included in 2020 Release 3. *Desna will verify that the revision is published.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 121	*T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete* Status of previous proposal In 2019, WAQTC proposed revisions replacing the variables *D* with ρ to represent density in calculations. This was approved as an editorial revision and should be included in 2020 Release 1. *Desna will verify that the revision is published.*	DESNA BERGOLD
T 176	*T 176, Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test* Status of previous proposal WAQTC informed TS 1a that there were discrepancies in the description and figures for the apparatus. The 2019 Annual Meeting minutes indicate that this would be discussed during the Midyear webinar which was held Jan. 23. Andy Babish, TS 1a Chair, will schedule a meeting with Sean and the Standard's Steward. Sean Parker, ODOT and QAC Chair will work with Andy Babish, TS 1a Chair, to address the discrepancies. *Sean Parker will work with Andy Babish, TS 1a Chair, to resolve the discrepancies.*	SEAN PARKER
T 309	*T 309, Temperature of Freshly Mixed Hydraulic Cement Concrete* Champion Bill Lawrence Status of previous proposals WAQTC proposed revisions to T 309 in 2019 to remove 8.4.1. The revision was discussed in the Annual Meeting and approved to go to concurrent ballot. Unfortunately, the ballot was to move the section into Significance and Use. This was not the proposal. 2020 Release 1 in April will probably include this revision. The QAC would like the Executive Board to propose striking the confusing statement concerning large size aggregate at the 2020 COMP Annual Meeting.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Sean Parker and Bill Lawrence, UDOT, will discuss this with Mick Syslo, TS 3b Chair, during the WASHTO meeting.	SEAN PARKER
T 310	*T 310, In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)* <u>Status of previous proposals</u> WAQTC proposed revisions to T 99 and T 180 in 2019. Replacing the variables *W* and *D* with ρ to represent density in calculations. This was approved as an editorial revision and should be included in 2020 Release 3. *Desna will verify that the revision is published.*	DESNA BERGOLD
PROPOSED AASHTO REVISIONS FROM QAC		
R 35	*R 35, Superpave Volumetric Design for Asphalt Mixtures* <u>Revisions proposed by the QAC:</u> – **2.2 and Note 1** – Revise SP 2, Superpave Mix Design to MS 2, Asphalt Mix Design Methods, which incorporates SP 2 in its 7th Edition Oak, TS 2d Chair, indicated that there is a Task Force working on revising and updating this Standard and that he recommends that we forward the revision to them to incorporate. *Oak Metcalfe will forward the revisions to the TS 2d Task Force.*	OAK METCALFE
T 23	*T 23, Making and Curing Concrete Test Specimens in the Field* <u>Revisions proposed by the QAC:</u> T 23 does not produce test results so it really should be a practice instead of a test method. – Revise from a Test Method (T) to a Practice (R) – Correct rod dimensions in Table 1 to agree with 5.4 Proposed revisions were approved for submittal to AASHTO COMP TS. Sean volunteered to champion the proposed revisions. *Sean Parker will submit the proposed revisions to Mick Syslo, TS 3b Chair.*	SEAN PARKER

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 30	*T 30, Mechanical Analysis of Extracted Aggregate* <u>Revisions proposed by the QAC:</u> Sample and aggregate sizes for this method are smaller than those in T 27. The Table in the Annex includes information for large size aggregates and sieves that will not be appropriate in this method. – **Table A1** – Remove sieves with opening sizes larger than 2 in. and the related rows – **Table A1** – Remove 350 by 350 mm and 372 by 580 mm sieves and the related columns. This eliminates the sieving efficiency issue for the larger sieves. – **Table A1** – Add US customary equivalences for remaining sieve sizes The Board recommended adding equivalency for the Sieving Area. This will be added. The Board discussed the suggestion from the 2019 COMP Annual Meeting to harmonize or combine T 27 ad T 30. The QAC has many concerns about this. Sean has indicated that he will ask to become a member of the Task Force. Proposed revisions were approved for submittal to AASHTO COMP TS. John volunteered to be the champion for the proposed revisions. *John Bilderback will submit the proposed revisions to Allen Myers, TS 2c Chair.*	JOHN BILDERBACK
T 85	*T 85, Specific Gravity of Coarse Aggregate* <u>Revisions proposed by the QAC:</u> T 85 states the temperature at which the sample is dried but not the interval of additional drying time or acceptable percent loss. Referencing T 255 will address this. – **8.1 and 8.5** – Add 'according to T 255' to reference constant mass conditions – **8.1 and 8.5** – Add 122°F after 50°C for equivalence	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Proposed revisions were approved for submittal to AASHTO COMP TS. John volunteered to be the champion for these revisions. *John Bilderback will submit the proposed revisions to Matthew Beeson, TS 1c Chair. volunteered to be the champion for these revisions.*	JOHN BILDERBACK
T 88	*T 88, Particle Size Analysis of Soils* <u>Revisions proposed by the QAC:</u> Some soils produce foam in the cylinder after agitation making it impossible to take accurate readings. Proposed revisions to address this include. – **12.2** – Move Note 7 into 12.2 – **12.2** – Add dispelling foam with 3 drops of alcohol – **12.3** – Begin 12.3 with 'placing the graduate in the bath' The Board reviewed the proposed revisions and determined that the term 'alcohol' is an insufficient descriptor. *ASTM D7928, Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis* was consulted and it has 'commercially available isopropyl alcohol' as a foam inhibitor. Similar language will be included in the proposed revisions. The Board also decided to propose deleting Figure 5 to address the discrepancy mentioned in *Report on 2019 AASHTO Proposals*, above. The figure doesn't agree with the requirements of ASTM E100 referenced in 3.1.4 The amended proposed revisions were approved for submittal to AASHTO COMP TS. Sean volunteered to champion the proposed revisions. *Sean Parker will submit the proposed revisions to Andy Babish, TS 1a Chair.*	SEAN PARKER
T 121	*T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric of Concrete)* <u>Revisions proposed by the QAC</u>: Section 7.3 Rodding and Section 7.4 Vibration should have the same directions.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	– **7.4 Vibration –** change 'tap the sides' to 'tap around the perimeter' after rodding each layer to match 7.3. – **7.5** – Revise 'sides' to 'side,' it is the outside of the measure that is being referenced Proposed revisions were approved for submittal to AASHTO COMP TS. Sean volunteered to champion the proposed revisions. *Sean Parker will submit the proposed revisions to Mick Syslo, TS 3b Chair.*	SEAN PARKER
T 152	*T 152, Air Content of Freshly Mixed Concrete by the Pressure Method* <u>Revisions proposed by the QAC:</u> Section 9.1.2 Rodding and Section 9.1.3 Vibration should have the same direction. – **9.1.3 Vibration –** change 'tap the sides' to 'tap around the perimeter' after rodding each layer to match 9.1.2. – **9.1.4, 9.3.1, 9.3.3, 9.4.2, A1.7.2, and A1.7.3** – Revise 'sides' to 'side,' it is the outside of the measure that is being referenced Proposed revisions were approved for submittal to AASHTO COMP TS. Sean volunteered to champion the proposed revisions. *Sean Parker will submit the proposed revisions to Mick Syslo, TS 3b Chair.*	SEAN PARKER
T 166	*T 166, Bulk Specific Gravity (G_{mb}) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens* <u>Revisions proposed by the QAC:</u> There is some confusion about the samples referenced in 6.1. The first sentence uses the term 'specimen,' but the two subsequent sentences refer to drying the 'sample.' It has been misconstrued that the 'sample' is different than 'specimen' and is referencing samples of loose mix. As the specimens are not created in this method it should be assumed that 'samples' means 'specimens.' – Change 'samples' to 'specimens' where appropriate	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	– Change the temperature in the water bath from 25 ±1°C (77 ±1.8°F) to 25 ±1°C (77 ±2°F) in 6.2, 9.2, 9.3, and 10.1, this agrees with T 209 Proposed revisions were approved for submittal to AASHTO COMP TS. Larry Ilg, ODOT and Vice Chair, volunteered to champion the proposed revisions. *Larry Ilg will submit the proposed revisions to Allen Myers, TS 2c Chair.*	LARRY ILG
T 209	*T 209, Theoretical Maximum Specific Gravity (G_{mm}) and Density of Asphalt Mixtures* <u>Revisions proposed by the QAC:</u> There were some cross-referencing issues with the 2019 published revisions and a few other proposed revisions. – **5.4.5 and 5.5** – Change 4.0 kPa (30 mmHg). To 3.3 kPa (25 mmHg) in 5.45 and 5.5 – should indicate the bottom of the range at which the test is performed – **7.2.1** – Revise to read, 'Plant-produced samples may be short-term conditioned according to R 30. See Note 5.' – **7.2.1** – Remove requirement to dry the samples to constant mass – **9.1 and 10.1** – Revise to require residual pressure for 15 min. ±30 sec instead of 15 ±2 min. – **A1.1.1** – Refer to Equation 1 instead of 2 – **A1.1.2** – Refer to A1.1.1 instead of A1.2.1 – **A1.2.1** – Replace repeat 'three times' with 'two times' and equation 3 with 2 in A1.2.1 – **A1.2.1** – Add, 'Subsequent determinations do not need to stabilize the 10 ±1 min. if the flask or pycnometer with water is within 25 ±1ºC (77 ±2ºF).' – **A1.2.2** – Include section on Checks for Flask and Pycnometer The Board reviewed the proposed revisions and had some corrections and additional revisions.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	In **7.2.1**, it was decided that there should be some indication that the agency would decide if the mix should be short-term aged. The proposal was revised to reflect this. The Board asked if there was proof that shortening the allowable range for the time required to apply residual pressure in **9.1** and **10.1** increased repeatability. John indicated that ITD has seen variations in test results that they feel could be attributed to the four minutes allowed in the range and they feel that with current equipment the variability in the test method could be reduced. John offered to review their supporting data and share the information. Larry was concerned that shortening the range too much may add pressure to the technicians while performing multiple tests. He asked if changing the proposal to ± 1 min. would be better. John said they would support this. In **A1.2.1**, Scott recommended changing it to 'perform this process three times' to avoid confusion and reinforce that it is done three times. The Board agreed, this will also be a proposed revision for **A1.1.1**. The Board did not agree with removing the requirement to stabilize the flask or pycnometer each time. This revision will be removed from the proposal. The Board decided to strike the phrase, 'When required or the standardization is in question,' from the proposed **A1.2.2.** All other proposed revisions were approved as submitted. Amended proposed revision from the Board: – **7.2.1 –** Revised to read, 'Plant-produced samples may be short-term conditioned according to R 30 as specified by the agency. See Note 5.' – **9.1 and 10.1** – Revise to require residual pressure for 15 ± 1 min. instead of 15 ± 2 min. – **A1.2.1** – Change to 'perform this process three times' instead of 'repeat' – **A1.2.2 –** remove 'When required or the standardization is in question,' from the revision proposal Larry volunteered to champion the proposed revisions. *Larry Ilg will submit the proposed revisions to Allen Myers, TS 2c Chair.*	LARRY ILG

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 272	*T 272, One-Point Method for Determining Maximum Dry Density and Optimum Moisture* <u>Revisions proposed by the QAC:</u> – **6.1.1** – the 'or' should be removed because 6.1.2, sieving sample over appropriate sieve, must be performed Proposed revisions were approved for submittal to AASHTO COMP TS. Matt, TS 1b Vice Chair, volunteered to champion the proposed revisions. *Matt Linneman will submit the proposed revisions to Neoma Cole, TS 1b Chair.*	MATT LINNEMAN
T 283	*T 283, Resistance of Compacted Asphalt Mixtures to Moisture* The QAC proposed numerous revisions because the method is very confusing. Attached is a summary of the proposed revisions and their purpose. The Board discussed the proposed removal of Section 8, *Preparation of Field-Mixed, Field Compacted Specimens (Cores).* The QAC recommended it be removed but if it were to stay, determining G_{mm} needs to be addressed. The G_{mm} is used to group the specimens by void content and to determine degree of saturation. Larry indicated that he felt the section should remain as a useful forensic tool for existing roadways. He asked if *T 324, Hamburg Wheel-Track Testing of Compacted Asphalt Mixtures* included a means to test field samples as many agencies use this method to asses moisture-induced damage. Scott said that it does. The QAC proposed moving Note 4 into the body of procedure as it changes the requirements of the original **10.3.1.** The Board thought this made the step confusing. Larry suggested putting all the options about how to saturate the specimen in the note and rewriting the step to read, 'Saturate the specimen to 70 to 80 percent by applying a vacuum.' This was approved. Oak volunteered to poll the TS members to see if anyone tests cores according to T 283. The Board also decided to add the steps to damp-dry the specimen before determining its mass. The reference to T 166 Method A is not clear.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Oak volunteered to champion the proposed revisions. *Desna will revise the proposed revisions as described.* *Oak Metcalfe will present the proposed revisions to TS 2d.*	DESNA BERGOLD OAK METCALF
T 308	*T 308, Determining the Asphalt Binder Content of Asphalt Mixtures by the Ignition Method* <u>Revisions proposed by the QAC:</u> – **7.8** – Add a new 7.8, 'Reset the internal balance to zero.' Current 7.8 requires verifying that the scale is within ±5 g of the total of the specimen and basket assembly mass. If the scale is not zero when the specimen and basket assembly are placed on it, this cannot be determined. – **9.1 –** Revise 'flat pan' to 'container' – any container that have sides high enough to contain the sample should be allowed The Board discussed oven drying the specimen to constant mass. **7.2** and **8.2** say to oven dry the specimen to constant mass or determine the moisture content of a companion sample according to *T 329, Moisture Content of Asphalt Mixtures by Oven Method*. The method does not include all of the components for determining constant mass of the entire specimen. <u>Board recommendations:</u> – **7.2 and 8.2** – Revised to 'Use T 329 to oven dry the asphalt mixture specimen to a constant mass or determine the moisture content of a companion specimen.' Oak volunteered to champion the proposed revisions. *Oak Metcalfe will submit the proposed revisions to Allen Myers, TS 2c Chair.*	OAK METCALFE
T 312	*T 312; Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor* In 2019, the title of this standard was revised to use the term 'asphalt mixtures' instead of 'HMA' but further revisions were not incorporated. – **2. Referenced Documents** – Change the reference to T 168 to R 97	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	– **4.4** – Change 'binder' and 'HMA' to 'asphalt binder' and 'asphalt mixtures' – **8.** – Change HMA to 'asphalt' – **8.2.2** – Reference R 97 instead of T 168 – **8.2.5** – Change HMA to 'asphalt mixtures' – **Footer –** Update the revision date Oak said that as TS 2d Chair he will have the method revised editorially. Desna asked if WAQTC should send him a formal recommendation. Oak said he thought that would be helpful in tracking the revision. *Desna will draft a letter to Oak Metcalfe, TS 2d Chair, requesting the editorial revisions for John Bilderback to send.*	DESNA BERGOLD JOHN BILDERBACK OAK METCALFE
T 329	*T 329, Moisture Content of Asphalt Mixtures by Oven Method* – **2.1 and 5.1 –** Replace T 168 with R 97 This will also be considered editorial. WAQTC will send a recommendation to the TS Chair. *Desna will draft a letter to Allen Myers, TS 2c Chair, requesting the editorial revisions for John Bilderback to send.*	DESNA BERGOLD
T 331	*T 331, Bulk Specific Gravity (G_{mb}) and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method* It appears that the method has had multiple changes that caused contradictions and extra steps. – **6.1 –** Remove the final two sentences about wet specimens, they are already dried. – **6.2.2** – Add 'Designate this mass (bag) as B.' – **6.3** – Delete, this is adding the bag mass to the specimen mass that is then subtracted in Formula 1 – **6.5** – Remove secondary check condition, primary check condition is tighter – **6.6 and 6.7** – Delete, specimen is already dried – **Formula 1** – Revise formula and definition of B, to eliminate unnecessary steps	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Sean explained some of the other issues with the procedure. Section 8.2, *Plastic Bag Verification* is odd and confusing. To determine if the 'bag correction factor (G_{mm})' of each size bag supplied by the manufacturer is correct, an asphalt mixture specimen is compacted, the specific gravity of the specimen is determined according to T 331 and then T 166 and the two values compared. Sean explained that the QAC felt the whole exercise is excessive when the only recourse of failing results is, 'Contact the manufacturer.' The QAC decided to address revising or removing the bag verification at another time. Proposed revisions were approved for submittal to AASHTO COMP TS. Larry volunteered to champion the proposed revisions. *Larry Ilg will submit the proposed revisions to Allen Myers, TS 2c Chair.*	LARRY ILG
REVISION PROPOSAL DISCUSSION	Desna pointed out that at an annual COMP meeting someone gave a brief presentation on WAQTC's proposed revisions to an AASHTO standard. She asked if it would be beneficial for WAQTC to offer to present their proposed revisions at TS meetings. Oak said that as a TS Chair he thought it may be a good idea. He also indicated that the annual meeting is not the only venue. He said that for proposals of significant revisions, such as those for T 283, a TS Chair could hold a TS teleconference to discuss the proposal with the TS members. They would then be able to refine the proposal before Midyear or Annual meetings. Sean said it should be helpful to show a short PowerPoint at meetings to illustrate revisions. The T 283 summary prepared for this meeting could be revised and used as a handout for TS meetings and be the basis for a short presentation. Desna suggested that she draft a cover letter for revision champions to submit to the TS Chairs with the revision proposals. The letter will offer WAQTC's assistance in presenting the revisions during COMP TS, Midyear, and Annual meetings and assist the Chair upon request. The letter would be used a template and may be revised for a specific proposal if necessary. *Desna will draft a cover letter to accompany revision proposals.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
FROM QAC WINTER MEETING		
E&B AND IPD MODULES REVISION	Scott Nussbaum, UDOT and WAQTC Treasurer, requested the QAC discuss publishing Embankment and Base Testing Technician (EBTT) and In-place Density Testing Technician (DTT) manuals separately as UDOT and other member agencies offer the qualifications separately. Desna informed the Board that there is a lot of inconsistency in these materials. The *Administration Manual* lists EBTT and DTT separately, the written exams for the two qualifications are separate, but the manuals have always been combined. <u>The QAC proposes</u> • Publishing EBTT and DTT as separate manuals • Including an EBTT/DTT combined written exam in the training materials • Including the combined qualification in the Administration Manual The Board approved the QAC proposal. *The* 2021 Training Materials *will include separate EBTT and DTT manuals and combined written exams.* *The* Administration Manual *will be revised to include the combined qualification table for the 2021 update.*	DESNA BERGOLD
FOP FOR AASHTO R 79	*FOP for AASHTO R 79, Vacuum Drying Compacted Asphalt Specimens* The QAC drafted a Field Operating Procedure (FOP) for AASHTO R 79 for the FOP library. This practice is referenced in T 166 as an option for drying specimens. An FOP in the library allows member agencies to use and, if necessary, refine the practice. The Board reviewed the FOP and approved it for incorporation in the FOP Library *The FOP for AASHTO R 79 will be included in the FOP library.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
SCC REVIEW OF MATERIALS	*Self-consolidating Concrete (SCC) Qualification* The QAC has been working on the training and qualification materials for the new SCC qualification. FOPs, student and short, Review Questions, PowerPoint Presentations, and Performance and Written Exams for T 347 / T 351 (combined test procedure) and T 345 have been developed. The student FOPs and PowerPoints still need pictures. Gilbert Arredondo, UDOT and QAC member, has supplied some. These will be incorporated where appropriate. *Desna Bergold will revise and add pictures to the SCC training materials.*	DESNA BERGOLD
INITIAL QUALIFICATIONS	The QAC asked the Board to determine how initial qualifications would be implemented. As the SCC qualification is new, there is no one with the qualification to administer the exams. After discussion, the Board determined that the initial qualifications should be conducted by the agency's QAC member with the understanding that the QAC member cannot qualify anyone in their chain of command as indicated in the Administration Manual. The QAC also discussed the possibility of an agency beginning 'beta testing' when the materials are ready. UDOT expressed interest. *The agency's QAC member will conduct initial qualifications for the SCC module following the* Administration Manual.	QAC
ASTM C1610 AND C1712	The QAC also asked the Board to consider including *ASTM C1610, Static Segregation of Self-Consolidating Concrete Using Column Technique*, and *ASTM C1712, Rapid Assessment of Static Segregation Resistance of Self-Consolidating Concrete Using Penetration Test,* in the SCC qualification. They are included in the ACI SCC certification and are being specified by many agencies that use SCC. Scott indicated that UDOT would like to have these additional methods included. The Board approved including these methods in the SCC qualifications.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Desna said that perhaps the QAC should hold a teleconference to review the materials when they are drafted so they are ready for possible inclusion in the 2021 Training Materials. *WATQC Test Methods (TM) for* Static Segregation of Self-Consolidating Concrete Using Column Technique *and* Rapid Assessment of Static Segregation Resistance of Self-Consolidating Concrete Using Penetration Test *will be developed and incorporated into the SCC qualification.*	DESNA BERGOLD QAC
REVISION REQUEST FORM	Desna explained that there is a *Materials Revision Request Form* on the WAQTC website that is significantly outdated. She presented an updated Adobe PDF Form to replace it. The new form has a submit button that sends the form to Sean and Desna. Sean explained that he will direct the submitted requests to the QAC at the appropriate meeting if the request concerns WAQTC materials. If the request is agency specific, he will direct it to the agency's QAC or Board representative or both. *The* Revision Request Form *is approved by the Board and will be posted on the WAQTC website.*	DESNA BERGOLD
R 60 AND TM 2	*R 60, Sampling Freshly Mixed Concrete* Oak asked why the WAQTC doesn't use R 60. He indicated that MDT has begun to use R 60 due to the direction they are going for acceptance. He asked if any non WAQTC agencies use a method similar to TM 2 or if R 60 is the standard. Scott indicated that UDOT specifies TM 2. He doesn't feel it is necessary to incorporate the option into R 60 but that WAQTC should maintain TM 2 as it is. The Board members agreed. *Incorporating TM 2 into R 60 is tabled.* *WAQTC TM 2 will continue as a WAQTC Test Method.*	
FROM 2019 FALL TELECONFERENCE		
RECIPROCITY AUDIT REPORT	Desna distributed the *Reciprocity Audit Report* on October 14, 2019. She asked if there were any question or discussions concerning the report. There were none. *The next Reciprocity Audit will be conducted in 2022 as directed in the* TTQP Operational Agreement.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
LBTT MODULE	During the 2019 Spring meeting, the Board asked the QAC to develop FOPs for the following standard test methods: • AASHTO T 84, Specific Gravity and Absorption of Fine Aggregate • AASHTO T 304, Uncompacted Void Content of Fine Aggregate • ASTM D4791, Flat and Elongated Particles in Coarse Aggregate. Two of them, AASHTO T 304 and ASTM D4791 as TM 16, have been developed and are included in the FOP Library in the 2019 Training Materials. The FOP for AASHTO T 84 was discussed at the QAC Winter Meeting and the draft was further revised. Desna will be incorporating and distributing these revisions. Scott indicated that UDOT would like WAQTC to proceed with developing a Laboratory Testing Technician qualification, similar to their agency's qualification, perhaps under a more descriptive name. Mike said that ITD agrees. Larry said he didn't think ODOT would have any use for the qualification. The Board decided not to pursue a qualification at this at this time. *Development of an additional qualification to cover these methods is tabled.*	
WAQTC 2020 SPRING BUSINESS		
ADMIN MANUAL AND RPIH	Desna drafted revisions to the *Administration Manual* to include NDDOT. The Board reviewed and approved these revisions. *These revisions will be incorporated into the* Administration Manual.	DESNA BERGOLD
WAQTC EXAM ADMINISTRATION AND SCORING	Scott discussed UDOT's Learning Management System (LMS) and their challenges incorporating the WAQTC qualifications. In the LMS, the written exams are administered on locked down iPads and the program scores the exams. WAQTC's scoring system and subsequent action is beyond what any Learning	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Management System can deliver. He asked if anyone had similar problems. No other agency has tried to use an LMS in such a way and has not had these problems. Oak asked Scott if UDOT has information on failure rates. He said that they do not currently have that information but that he will try to gather it. *Discussion item, no action necessary.*	
ACTION TO WAQTC SUSPENSIONS	Scott asked how the member agencies were addressing technician suspension and revocation from another member agency. For example, ITD recently issued a suspension of all of a technician's qualifications for an extended period. He asked if the reason for the suspension were shared with other agencies. According to the *Administration Manual,* all the member agencies honor a suspension and revocation by another agency without any further review. Member agencies are notified of suspensions or revocations, usually by email. A technician who is qualified in a member agency seeking reciprocity should supply their qualification number so their status can be verified. There is no central list of technicians that have been suspended. Larry suggested that each agency keep a list of suspended technicians so that they can verify a technician's status by name. *Discussion item, no action necessary.*	
STRATEGIC PLAN	Desna drafted revisions to the *Strategic Plan.* <u>Revision include:</u> – Moving *TM (14) for Asphalt Mixtures Laboratory Prepared Specimens* to completed items. – Adding initiating SCCTT qualifications to Short Term Goals and Planned work Also listed on 'Completed Items' – Developed TM 16, Determining the Percentage of Flat and Elongated Particles in Coarse Aggregate	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	– Developed FOP for AASHTO T 304, Uncompacted Void Content of Fine Aggregate – Performed Reciprocity Audits of Member States – Developed WAQTC Travel policy – Eight published revisions to the AASHTO Standards – One new Provisional Practice: *Determining Constant Mass* *The Board reviewed and approved the revisions to the* Strategic Plan.	
CONSULTANT CONTRACT	Scott reminded the Board that the maximum 5-year consultant contract will reach an end in June. He has been working on a new consultant solicitation (Request for Qualifications). He also wanted to reassure the Board that if the solicitation and selection process is not completed on time, he has confirmed that the current contract can be extended if necessary. *Scott Nussbaum, John Bilderback, and UDOT will continue work on the WAQTC consultant solicitation.*	SCOTT NUSSBAUM JOHN BILDERBACK
POOLED FUND UPDATE	Before the meeting, Scott distributed a WAQTC Financial Summary Report for fiscal year 2019. It shows the deposits made to the pooled fund and the expenditures. He asked if there were any questions. Matt asked if other member agencies are using federal research funds for their WAQTC commitment. Some are and some are using general funds. *Discussion item, no action necessary.*	
OTHER ITEMS	During the revision proposal discussion, Oak mentioned that there is a process for 'checking out' standards from the AASHTO library and tracking the revisions. Desna asked if she could get training on this. She does not have access to the library but would like to have the instructions available for revision proposal champions. Oak thought it would be a good idea for Desna to have access to the library to assist in the revision effort. He will discuss it with Casey Soneira, AASHTO, and the Steering Committee. Desna said she will review the AASHTO Guidance Documents concerning the library and the revision tracking method.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Oak Metcalfe will discuss library access for Desna with Casey Soneira and AASHTO. <u>North Dakota DOT</u> Matt said that NDDOT is still working on incorporating the WAQTC materials. He indicated that they currently share contractors and personnel with South Dakota and Minnesota, and they are considering the implications of changing their qualification methods. *Discussion item, no action necessary.*	OAK METCALFE

T 283, Resistance of Compacted Asphalt Mixtures to Moisture

Purpose of proposed revisions

The method is very confusing. It is written in a paragraph format with multiple steps in each paragraph. Some of the information is out of order i.e., information that is required early in the method is not addressed until later in the method, if at all. For example:

- Section 6.1 says to make the mixture for 6 specimens and compact them.
- Section 6.5 says they have to be 7.0 ± 0.5 percent voids.
- Section 9 says to determine G_{mm} but there has been no mix prepared to determine G_{mm}.

Listed summary of proposed revisions

Section 2 – Referenced Documents

2.1 Add reference to *R 30, Mixture Conditioning of HMA.*

2.1 Add reference to *R 68, Preparation of Asphalt Mixtures by Means of the Marshall Apparatus.*

2.1 Remove the *T 269, Percent Air Voids in Compacted Dense and Open Asphalt Mixtures* – Air void formula is included in the procedure under Section 8.4.

2. Remove *D3549/D3549M, Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens* – Thickness measurement is now addressed under Section 8.1.

Section 3 – Significance and Use

3.1 Remove statement addressing core and field compacted specimens based on the removing Section 8, Preparation of Field-Mixed, Field-Compacted Specimens (Cores).

Section 5 – Apparatus

5.1 Remove *T 245, Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus* reference addressing the equipment used to compact specimens. Replace with *R 68, Preparation of Asphalt Mixtures by Means of the Marshall Apparatus*.

Section 6 – Preparation of Laboratory-Mixed, Laboratory-Compacted Specimen

6.1.1 Add preparation of mixture for G_{mm} if it is unknown – determining G_{mm} isn't addressed until 9.1 and it does not discuss how the material for the G_{mm} was obtained.

6.1.2 Move mixture prep from 6.3. for better flow.

QAC proposed revisions to
T 283, Resistance of Compacted Asphalt Mixtures to Moisture

6.2 Add the air voids requirement with a description of how that level of compaction is obtained – the air voids requirement and how to reach it is important to know before the specimen is compacted.

6.4 Remove dimension of pan use for curing – pan requirements are listed in the apparatus section.

6.5 Add reference to R 30 in 6.5 (new) – to determine the compaction temperature range.

6.7 Add 'Remove the specimens from the mold' as its own step.

6.8 Add 'Determine air voids' – check the air voids in case any specimens need to be rejected and additional specimens compacted.

6.8 Remove requirement to store at room temperature for 24 hours – If the intent is to allow the specimen to cool to room temperature to determine G_{mb}, why 24 hrs.? Recommend removal of requirement.

Section 7 Preparation of Field-Mixed, Laboratory Compacted Specimens

7.1 Add sampling reference – sampling currently isn't addressed until after making specimens.

7.2 Add step to determine G_{mm}.

7.3 The former 7.1.

7.3.1 Add the air voids requirement with a description of how that level of compaction is obtained. The air voids requirement and how to reach it is important to know before the specimen is compacted.

7.6 Add 'Remove the specimens from the mold' as its own step.

7.7 Add 'Determine air voids' – check the air voids in case any specimens need to be rejected and additional specimens compacted.

7.7 Remove requirement to store at room temperature for 24 hours – If the intent is to allow the specimen to cool to room temperature to determine G_{mb}, why 24 hrs.? Recommend removal of requirement.

Section 8 Preparation of Field-Mixed, Field Compacted Specimens (Cores)

Remove this section. It seems unlikely that one could 'evaluate and group' the specimens correctly. If this section remains, how to obtain and prepare material to determine G_{mm} needs to be addressed.

(New) Section 8 – Evaluation and Grouping of Specimens

Remove section for determining G_{mm}. Move it into the section where material is mixed or obtained.

QAC proposed revisions to
T 283, Resistance of Compacted Asphalt Mixtures to Moisture

8.1 Include means to measure the specimen thickness – it is unnecessary to include an ASTM reference and require laboratories to purchase the method to measure a core in four locations, fewer references outside of the method the better it is for the technician.

8.4 Remove reference and add the percentage of voids formula – the less referencing outside of the method the better it is for the technician

(New) Section 9 – Preconditioning of Test Specimens

9.2 Remove storage language

9.3.2 Incorporate Note 4 – Note 4 contains the target saturation percentage with some additional information on achieving it. Move all the time and vacuum parameters to the Note.

9.3.4 Remove reference to T 166 – this is just a mass determination. Bring the damp towel language into this method.