2021 WAQTC QAC COMMITTEE WINTER MEETING MINUTES

AMENDED 4/20/21

CHAIR: SEAN PARKER, ODOT **COORDINATOR:** DESNA BERGOLD, D B CONSULTING	**DATE:** JAN 25TH THROUGH THE 27TH, 2021 **TIME:** 8:30 AM TO 3:00 PM PST **LOCATION:** MEET.GOOGLE
ATTENDEES: SEAN PARKER, ODOT, CHAIR MISTY MINER, MDOT, VICE CHAIR DAN GETTMAN, AKDOT & PF CHRISTOPHER RUSSELL, CDOT BRIAN IKEHARA, HDOT LORI COPELAND, ITD SHARON TAYLOR, NDDOT GILBERT ARREDONDO, UDOT KEVIN BURNS, WSDOT RANDY MAWDSLEY, WSDOT SONYA PUTERBAUGH, AASHTO RE:SOURCE NASSIM SABAHFAR, FHWA	**ABSENT:** AARON COENEN, FHWA

MEETING ITEMS:

1. Welcome

Proposed revisions to AASHTO Standards

2. Revisions to Embankment/Base and In-Place Density AASHTO Test Methods
    a. T 265, Moisture Content of Soil
    b. T 99, Moisture/Density Relations
    c. T 180, Moisture/Density Relations
    d. R 75, Developing a Family of Curves
    e. T 272, One-Point Method
        i. Status of 2020 proposed revision
    f. T 85, G_{sb}
        i. Status of 2020 proposed revision
    g. T 310, In-place Density and Moisture Content of Soil-Aggregate
        i. Probe should be source rod – Summer Meeting
    h. T 355 In-place Density of Asphalt
        i. Probe should be source rod – Summer Meeting
3. Revisions to Concrete AASHTO Test Methods
    a. R 60, Sampling Concrete
    b. T 309, Temperature
    c. T 119, Slump
    d. T 121, Density
    e. T 152, Air Content
        i. Status of 2020 proposed revision
    f. T 23, Test Specimens
        i. Status of 2020 proposed revision
    g. R 39, Making and Curing Concrete Test Specimens in the Lab
4. Revisions to Aggregate AASHTO Test Methods
    a. R 90, Sampling Aggregate Products
    b. R 76, Reduction
        i. Alternate reduction method – Summer Meeting

c. T 255, Moisture Content of Aggregate
d. T 11, Washing
e. T 27, Sieve Analysis
f. T 335, Fractured Particles
g. T 176, Sand Equivalent
    i. Status of previous proposed revision
    ii. Sample size – 2020 Summer meeting
    iii. Unique rounding – Misty

5. Revisions to Asphalt AASHTO Test Methods
    a. R 67, Obtaining Cores
    b. R 97, Sampling Asphalt Mixtures
    c. R 47, Reducing Asphalt Mixtures
    d. T 329, Moisture Content
        i. Status of 2020 proposed revision
    e. T 308, Asphalt Content
        i. Status of 2020 proposed revision
    f. T 209, G_{mm}
        i. Status of 2020 proposed revision
    g. T 166, G_{mb}
        i. Status of 2020 proposed revision
    h. R 66, Sampling Asphalt Material
    i. T 30, Sieve Analysis
        i. Status of 2020 proposed revision
    j. T 312, Gyratory
        i. Status of 2020 proposed revision
    k. R 35, Superpave Volumetric Design
        i. Status of 2020 proposed revision
6. Other AASHTO:
    a. T 283, Resistance of Compacted Asphalt Mixtures to Moisture-Induced Damage
        i. Status of 2020 proposed revision
    b. T 315, Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)
        i. Revision discussion from 2020 Winter meeting
    c. T 88, Particle Size Analysis of Coarse Aggregate
        i. Status of 2020 proposed revision
    d. R 25, Technician Training and Qualification Programs
        i. Status of 2020 proposed revision
    e. T 331, Bulk Specific Gravity (G_{mb}) and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method
        i. Status of 2020 proposed revision
        ii. Plastic bag verification – 2020 Winter meeting
7. WAQTC FOPs
    a. Basics of Embankment revision draft (1/21)
    b. Other Basics rewrites
    c. Remove ‘FOP for’ from TM 2 – Desna
    d. Add a review question to R 90 – Misty
    e. T 176 6a and 6b ‘Mechanical’ and ‘Manual’ shaker methods – Misty
    f. Development of FOP for R 60 – approved by the Board
8. Report from the Exam Task Force
9. Direction from the Board on exams
10. Administration Manual /RPIH Revisions
11. ACI Aggregate certification – Oak Metcalfe

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
WELCOME	Sean Parker, ODOT and WAQTC QAC Chair, welcomed attendees to the 2021 Winter Meeting. He asked everyone to introduce themselves and update the committee on the steps they have taken to train technicians due COVID-19 restrictions. He said that ODOT is conducting in-person training with limited class size. Chris Russell, CDOT, said that they are also performing in-person training with small classes. Originally, they were training 25 technicians per session now the maximum is 9. This has created a backlog and stretched out their training season. CDOT started training at consultant labs to try to catch up. CDOT has created training videos based on the WAQTC Test Methods and will be publishing them online. They are also asking lab managers to perform more independent training with their technicians. Sharon Taylor, NDDOT, said they are only allowed 50 percent occupancy in their offices and labs. They are conducting all classes virtually, using Microsoft Teams. She thinks that a combination of online and in-person training would be better. She is looking forward to being able to train in-person again. Sonya Puterbaugh, AASHTO re:source, said that the lab assessments are 100 percent remote at this time. re:source personnel are only in the buildings to assemble reference samples. Kevin Burns, WSDOT, said that they too are limiting the personnel in their buildings. They have performed training virtually and are leaning on their consultants for training. This method is limiting but necessary. Lori Copeland, ITD, said they are performing most of their training virtually with some hybrid training. She does travel for Nuclear safety classes and discussed the challenges of trying to travel under current conditions. Misty Miner, MDT, said that their in-person training has been shut down. MDT tried to do some training in the summer but had a potential virus exposure. They are training virtually and have developed secure online written exam delivery. MDT is also going to be publishing training videos online. Performance exams are being hosted at all 12 of MDT's training facilities at staggered times.	

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	Gilbert Arredondo, UDOT, said that they have many of the same issues. Allowable class sizes for testing have gone up and down with infection rates. At times, classes are as small as 4 technicians. For larger classes, they are using the largest conference rooms available. UDOT is performing health screenings upon entry. They are holding more testing sessions, but no in-person training. They will probably not go back to in-person training for a while, if ever. They are working towards virtual training. Dan Gettman, AKDOT, said that they have fewer problems because they have a much smaller program. AKDOT has allowed qualification extensions but they were not widely used. AKDOT has been able to meet their needs with smaller class sizes, but they have never really had very large classes. Nassim Sabahfar, FHWA, said she just started working with FHWA, she is aware that the lab is functioning but everyone else is working from home. Her general understanding is that they will not be going back to their offices until everyone is safe, probably after the vaccine is widely available.	
PROPOSED REVISION TO AASHTO STANDARDS		
EMBANKMENT/BASE AND IN-PLACE DENSITY TEST METHODS		
T 265	*T 265, Laboratory Determination of Moisture Content of Soils* *No proposed revisions to the AASHTO method.*	
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> In 2019, WAQTC proposed revisions to T 99 and T 180 to replace the variables for density, W and D, with ρ, in calculations. This was approved as an editorial revision but was not included in 2020 Release 3. Desna Bergold, D B Consulting and WAQTC Coordinator, contacted Technical Subcommittee (TS) 1b Chair, Neoma Cole, and was told the revisions were submitted to AASHTO publications and should be in the 2021 Standards. *No new proposed revisions to the AASHTO method.*	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
R 75	*R 75, Developing a Family of Curves* *No proposed revisions to the AASHTO method.*	
T 272	*T 272, One-Point Method for Determining Maximum Dry Density and Optimum Moisture* Status of previous proposal 2020 proposal: • Remove 'or' in 6.1.1 Approved as editorial during the 2020 Annual meeting. Sean reviewed the document in the AASHTO library, and this revision is incorporated. *No new proposed revisions to the AASHTO method.*	
T 85	*T 85, Specific Gravity of Coarse Aggregate* Status of previous proposal 2020 proposal: • Add 'according to T 255' in 8.1 and 8.5 • Add 122°F after 50°C in 8.1 and 8.5 Approved on COMP ballot, should be included in the 2021 AASHTO Standards. *No new proposed revisions to the AASHTO method.*	
T 310	*T 310, In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)* Status of previous proposals In 2019, WAQTC proposed revisions to T 310. Replacing the variables W and D with ρ to represent density in calculations. This was approved as an editorial revision but was not included in 2020 Release 3. TS 1b Chair, Neoma Cole, said the revisions were submitted to AASHTO publications and should be in the 2021 Standards. Revision discussion: During the 2020 Summer Meeting, Lori pointed out that the term 'probe' and 'source rod' are used interchangeably in the method. She suggested that 'source rod' should be used	

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	exclusively. At the time, Misty reviewed the manufacturer's information, and only the term 'source rod' is used. Revision proposal: • Change the term 'probe' to 'source rod' in 9.5.2, 9.5.6, 9.5.8, and Note 5 *Revisions to T 310 will be presented to the Executive Board for approval and submittal to AASHTO.*	SEAN PARKER
T 355	*T 355, In-place Density of Asphalt Mixtures by Nuclear Methods* Revision discussion: The terminology issue in AASHTO T 310 also applies to T 355. The same revisions are proposed. Revision proposal: • Change the term 'probe' to 'source rod' in 9.3.1.1 and 9.3.2.1 *Revisions to T 355 will be presented to the Executive Board for approval and submittal to AASHTO.*	SEAN PARKER
AASHTO CONCRETE TEST METHODS		
R 60	*R 60, Sampling Freshly Mixed Concrete* Revision discussion: During review of the FOP for AASHTO R 60 (discussed later under WAQTC FOPs), the committee realized that R 60 does not include 'Sampling from Pump or Conveyor System.' WAQTC developed a section for sampling at this location for WAQTC TM 2. The committee decided to propose its inclusion in AASHTO R 60. Revision proposal: • Add 'Sampling from a Pump or Conveyor System' in 5.2.6 *Revisions to R 60 will be presented to the Executive Board for approval and submittal to AASHTO.*	SEAN PARKER
T 309	*T 309, Temperature of Freshly Mixed Hydraulic Cement Concrete* *No proposed revisions to the AASHTO method.*	

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T 119	*T 119, Slump of Hydraulic Cement Concrete* *No proposed revisions to the AASHTO method.*	
T 121	*AASHTO T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete* <u>Status of previous proposals</u> In 2019, WAQTC proposed revisions replacing the variables *D* with ρ to represent density in calculations. This was approved as an editorial revision and was included in 2020 Release 1. 2020 proposal: • **7.4 Vibration –** change 'tap the sides' to 'tap around the perimeter' • **7.5** – Revise 'sides' to 'side' These revisions were approved editorially and should be included in 2021 Standards. *No new proposed revisions to the AASHTO method.*	
T 152	*T 152, Air Content of Freshly Mixed Concrete by the Pressure Method* <u>Status of previous proposal</u> 2020 proposal: • Revise 9.1.3 to say 'tap around the perimeter' after consolidation • Revise 'sides' to 'side' in 9.1.4, 9.3.1, 9.3.3, 9.4.2, A1.7.2, and A1.7.3 Approved as an editorial revision. Should be included in 2021 Standards. *No new proposed revisions to the AASHTO method.*	
T 23	*T 23, Making and Curing Concrete Test Specimens in the Field* <u>Status of previous proposal</u> In 2018, WAQTC proposed revisions to correct the tamping rod length in Table 1 and revise the Test Method (T) to a Practice (R). This method was moved from TS 3c to TS 3b in 2018. Proposed revisions appear to be lost. These revisions were reproposed in 2020.	

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	These revisions were approved on Rolling Ballot 1 and should be included in 2021 Standards. *No new proposed revisions to the AASHTO method.*	
AASHTO AGGREGATE TEST METHODS		
R 90	*R 90, Sampling Aggregate Products* *No proposed revisions to the AASHTO method.*	
R 76	*R 76, Reducing Samples of Aggregate to Testing Size* <u>Revision discussion:</u> During the 2020 Winter meeting, the committee discussed an alternate reduction method based on the FOP for AASHTO R 47 'Apex Method'. They agreed that a method to create a more precisely sized test sample for fine aggregate would be beneficial. Misty provided a draft of the process that she had in the FOP format. The committee incorporated this into AASHTO R 76. The committee also discussed the graphics in Figures 2 and 3 and decided that WAQTC could develop better, more accurate, graphics and include additional graphics for reduction by Apex. <u>Revision proposal:</u> • Apparatus: – Add the quartering template from R 47 – Add drywall taping knives – Allow the size of the tarp to be 'appropriate for the size and amount of the material being reduced' – Group the remaining apparatus by equipment type – Clarify the term 'tarp' • Procedure – Break the paragraphs of each option into steps – Title each option – In 'quartering on a hard clean surface,' require the material to be turned over at least four times to be consistent with 'quartering on a tarp' – Add instructions on further reduction – In both 'quartering' methods include, 'The final test sample consists of two diagonally opposite quarters.'	

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	– Add section for 'Reduction by Apex' – Replace Figures 2 and 3 graphics – Add graphics for 'Reduction by Apex' *Revisions to R 76 will be presented to the Executive Board for approval and submittal to AASHTO.*	SEAN PARKER
T 255	*T 255, Total Evaporable Moisture Content for Aggregates* *No proposed revisions to the AASHTO method.*	
T 11	*T 11, Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing* Status of previous proposal In 2015, WAQTC proposed revisions to this method to address the use of the automatic washer which is mentioned in a note. This was included in Release 3. *No new proposed revisions to the AASHTO method.*	
T 27	*T 27, Sieve Analysis of Fine and Coarse Aggregates* Status of previous proposal In 2018, WAQTC proposed moving requirements for overloading sieves, shaker time, and sieving efficiency into Annexes. This was included in Release 3. Sean is on the task force for harmonizing T 30 and T 27. The Task Force may propose revisions at the AASHTO annual meeting. *No new proposed revisions to the AASHTO method.*	
T 335	*T 335, Determining the Percentage of Fracture in Coarse Aggregate* Discussion item: Sean shared the revisions that Maria Knake, AASHTO re:source, intends to propose. Sean indicated that he had shared some pictures with Maria for incorporation into the Standard. *Discussion item, no further action necessary.* *No new proposed revisions to the AASHTO method.*	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 176	*T 176, Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test* Status of previous proposal In 2019, WAQTC informed the TS 1a Chair that there were discrepancies in the description and figures of the apparatus. The 2019 Annual Meeting minutes indicate that this would be on the agenda for the 2019/20 Midyear webinar. Sean worked with the standards steward to resolve these discrepancies and their findings were discussed during the 2020/21 midyear webinar held Jan. 19, 2021. These revisions will be balloted in the Technical Subcommittee soon. Revision discussion While working with the Task Force, Sean mentioned that WAQTC would be proposing increasing the sample size in Section 6.4 from 500 to 750 g to 1000 to 1500 g. The current sample size is insufficient to perform the three iterations of the test that many agencies use. The TS 1a Chair, Andy Babish, decided to ballot this revision in the Technical Subcommittee with the other revisions discussed above. Sean said that Andy was waiting for the QAC to meet and the WAQTC to approve the sample size proposal before proceeding. Sean also asked the committee if, for some reason the TS wanted change it to 750 to 1000 g instead of the 1000 to 1500 g, would they agree. The committee said this would be better than the current requirement, but the larger sample size is preferred. Lori said that ITD would prefer the larger sample size as they perform the test on multiple full tins. Kevin pointed out that Section 6.2 states, 'The sample shall be of sufficient size to yield 1000 to 1500 g of material passing the 4.75 mm (No. 4) says sieve.' This statement is unnecessary especially with the further instruction to reduce the sample. Sean indicated that he would seek approval from the Executive Board for these revisions as soon as possible so that WAQTC can provide Andy Babish with the information. Discussion item Misty wanted to discuss the unique rounding in this test method, all results from the tests are rounded up and then when averaged, those results are also rounded up. Sean believes that Idaho developed this test procedure. Randy Mawdsley, WSDOT, thinks that the rounding up would mean less	

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	arguments about the test results. Desna texted Garth Newman, D B Consulting, formerly ITD and QAC Chair, if he had any more information. Garth responded that ITD developed the method in the 1950s, at the time the decision to round all results up was to give the supplier the benefit of the doubt and alleviate conflict. Their specifications were then developed to reflect the worst-case scenario. *Discussion item, no further action necessary.* <u>Revision proposal:</u> • Remove second sentence in Section 6.2 • Revise the sample size in Section 6.4 to 1000 to 1500 g (2.2 to 3.3 lb.) *Revisions to T 176 will be presented to the Executive Board for approval and submittal to AASHTO as soon as possible.*	SEAN PARKER DESNA BERGOLD
AASHTO ASPHALT TEST METHODS		
R 97	*R 97, Sampling Asphalt Mixtures* *No proposed revisions to the AASHTO method.*	
R 47	*R 47, Reducing Samples of Asphalt Mixtures to Testing Size* <u>Revision discussion</u> After revising R 76, the committee decided that R 47 should undergo similar revisions. They also noticed that Section 9.1 describes the 'Quartering Template,' but Figure 5 refers to it as a 'Quartering Device.' The term should be the same. As with R 76, the paragraph formatting would be better as procedural steps. <u>Revision proposal:</u> • In Section 9 Apparatus, relabel Figure 5 to say 'Quartering <u>Template</u>' • Procedure – Break the paragraphs of each option into steps – In 'Mechanical Splitter Type B' rephrase the step on releasing the mixture – Title each option in the quartering method – In 'quartering' include, 'The final test sample consists of two diagonally opposite quarters.'	

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	Revisions to R 47 will be presented to the Executive Board for approval and submittal to AASHTO.	SEAN PARKER
T 329	*T 329, Moisture Content of Asphalt Mixtures by Oven Method* <u>Status of previous proposals</u> 2020 proposal • Replace T 168 with R 97 in 2.1 and 5.1 This was discussed at the annual meeting and listed as an editorial change on the Midyear Webinar agenda with the statement, 'will be communicated to AASHTO publications staff.' *No new proposed revisions to the AASHTO method.*	
T 308	*T 308, Determining the Asphalt Binder Content of Asphalt Mixtures by the Ignition Method* <u>Status of previous proposals</u> 2020 proposal: • Add a new 7.8, 'Reset the internal balance to zero.' • Revise 'flat pan' to 'container' in 9.1 • 7.2 and 8.2 – Revise to 'Use T 329 to oven dry the asphalt mixture specimen to a constant mass or determine the moisture content of a companion specimen.' This revision was approved concurrently on Rolling Ballot 3, no negatives with one comment. Pennsylvania comment: 1) In Section 7.2 and Section 8.2, it is strongly recommended to revise from "Use T 329 to oven dry the asphalt mixture specimen to a constant mass or determine the moisture content of a companion sample" to "Oven dry the asphalt mixture specimen to a constant mass according to T 329 Section 4 (Apparatus) and Sections 6.1 to 6.6 (Procedure) or determine the moisture content of a companion specimen according to the full T 329". The reason is that T 329 talks about a 1000 g test sample size, which is not applicable in T 308. I understand the proposed language was to "Use T 329" but consider revising as recommended to avoid	

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	any confusion on what parts of T 329 to "use" for drying to constant mass vs. determining the moisture content. Allen Myers, TS 2c Chair, asked Desna what the WAQTC would recommend and if she thought that this recommendation could be included editorially. Desna discussed the comment with the QAC. The committee reviewed both methods, T 308 and T 329. Section 5.2 of T 329 states, 'The size of the test sample shall be a minimum of 1000 g.' The committee determined that since the sample size is a minimum and the full T 308 sample can be dried by T 329 there is not a conflict. Some on the committee were confused about the suggested reference to the apparatus section. Desna sent an email to Allen indicating the WAQTC does not recommend adding this language. Later, the committee also noticed this method references *T 168, Sampling Bituminous Paving Mixtures*, in 2.1 and 6.1. These references should be revised to *R 97, Sampling Asphalt Mixtures*. John Bilderback, ITD, Executive Board Chair, and revision Champion, was asked to alert Allen while he is working on the current revisions. John did so. *No new proposed revisions to the AASHTO method.*	
T 209	*T 209, Theoretical Maximum Specific Gravity (G_{mm}) and Density of Asphalt Mixtures* <u>Status of previous proposals</u> 2020 proposal: • Change 4.0 kPa (30 mmHg). to 3.3 kPa (25 mmHg) in 5.45 and 5.5 • Revise 7.2.1 to read, 'Plant-produced samples may be short-term conditioned according to R 30. See Note 5.' • Remove current 7.2.1 requirement to dry the samples to constant mass • Revise 9.1 and 10.1 to require residual pressure for 15 min. ± 1 min. instead of 15 ± 2 min. • Refer to Equation 1 instead of 2 in A1.1.1 • Refer to A1.1.1 in A1.1.2 instead of A1.2.1 • Replace repeat 'three times' with 'two times' and equation 3 with 2 in 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).'	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	• Include section on Checks for Flask and Pycnometer (A1.2.2) Larry Ilg, ODOT, WAQTC Vice Chair, and revision Champion, contacted Allen Myers before the Mid-Year Webinar. Allen said that he intended to discuss it briefly during the webinar and include the revisions on a Technical Subcommittee ballot in March or April. *No new proposed revisions to the AASHTO method.*	
T 166	*T 166, Bulk Specific Gravity (G_{mb}) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens* <u>Status of previous proposals</u> 2020 proposal: • Change 'samples' to 'specimens' where appropriate • 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 Approved concurrently on Rolling Ballot 3. This should be included in the 2021 AASHTO Standards. *No new proposed revisions to the AASHTO method.*	
T 30	*T 30, Mechanical Analysis of Extracted Aggregate* <u>Status of previous proposals</u> 2020 proposal: • Remove sieves with opening sizes larger than 2 in. and the related rows in Table A1 • Remove 350 by 350 mm and 372 by 580 mm sieves and the related columns in Table A1 • Add US customary equivalences for remaining sieve sizes in Table A1 Approved concurrently on Rolling Ballot 3. This should be included in the 2021 AASHTO Standards. *No new proposed revisions to the AASHTO method.*	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 312	*T 312, Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor* Status of previous proposals 2020 proposal: • Changing the reference to T 168 to R 97 in Referenced Documents • Changing 'binder' and 'HMA' in 4.4 to 'asphalt binder' and 'asphalt mixtures' • Changing 'HMA mixture' to 'asphalt mixture' in 8. title • Referencing R 97 instead of T 168 in 8.2.2 • Changing HMA to 'asphalt mixtures' in 8.2.5 • Updating the revision date in the footer of the Word file Considered editorial at annual meeting. Oak will submit to AASHTO Publications. This should be included in the 2021 AASHTO Standards. *No new proposed revisions to the AASHTO method.*	
R 35	*R 35, Superpave Volumetric Design for Asphalt Mixtures* Status of previous proposals 2020 proposal: • Revise *SP 2, Superpave Mix Design*, in 2.2 and Note 1 to *MS 2, Asphalt Mix Design Methods* Oak Metcalfe, MDT and TS 2d Chair, forwarded this revision to the Task Force that is working on this Standard. *No new proposed revisions to the AASHTO method.*	
OTHER AASHTO TEST METHODS		
T 283	*T 283, Resistance of Compacted Asphalt Mixtures to Moisture* Status of previous proposal 2020 proposal: WAQTC proposed extensive revisions to this method. During the Executive Board Spring meeting, Oak offered to hold a TS 2d teleconference to allow WAQTC to present these extensive revisions and answer questions. Sean presented a brief PowerPoint and discussed the revisions. After the TS meeting, Oak balloted the revision in the Technical Subcommittee.	

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	Revisions were made addressing the TS comments and the extensive revisions were approved on the COMP ballot. Oak's approach to presenting these revisions was extremely helpful. These revisions should be included in the 2021 AASHTO Standards. *No new proposed revisions to the AASHTO method.*	
T 315	*T 315, Determining the Rheological Properties of Asphalt Binder Using the Dynamic Shear Rheometer (DSR)* <u>Discussion item</u> During the 2020 Winter meeting, David Mariman, FHWA, proposed revisions to the Verification and Calibration section. The committee realized that the equipment references are inconsistent and confusing. David intended to draft revisions, with Kevin and Sonya's help, and present them during this meeting, but David has changed positions. There is no proposal to review this year. Nassim indicated that FHWA still wants to pursue this issue and will be proposing revisions in the future. Sonya and Kevin volunteered to assist. *Nassim Sabahfar, Sonya Puterbaugh, and Kevin Burns will draft revisions and present them at the 2022 Winter meeting.* *No new proposed revisions to the AASHTO method at this time.*	NASSIM SABAHFAR SONYA PUTERBAUGH KEVIN BURNS
T 88	*T 88, Particle Size Analysis of Soils* <u>Status of 2020 proposal</u> • Move Note 7 into 12.2 • Add dispelling foam with 3 drops of isopropyl alcohol • Begin 12.3 with 'placing the graduate in the bath' • Delete Figure 5 to address equipment discrepancy This proposal was not discussed during the 2020 Annual Meeting, so the proposal was resubmitted to Andy Babish, TS 1a Chair. These revisions will be TS balloted in the spring of 2021. *No new proposed revisions to the AASHTO method.*	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
R 25	*R 25, Technician Training and Qualification Programs* Status of previous proposal 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 proposed revisions 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. L. Scott Nussbaum, UDOT, WAQTC Treasurer, and revision Champion will follow up with Curt Turgeon, TS 5c Chair, to ensure these revisions are submitted to AASHTO publications for inclusion in the 2021 Standards. *Desna will contact Scott Nussbaum for follow up.* *No new proposed revisions to the AASHTO method.*	DESNA BERGOLD
T 331	*T 331, Bulk Specific Gravity (G_{mb}) and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method* Status of previous proposals 2020 proposal: • Remove the final two sentences of 6.1 • Add 'Designate this mass (bag) as *B*.' in 6.2.2 • Delete 6.3 • Remove secondary check condition from 6.5 • Delete 6.6 and 6.7 • Revise Formula 1 and definition of *B* Approved concurrently on Rolling Ballot 3. This should be included in the 2021 AASHTO Standards. *No new proposed revisions to the AASHTO method.*	
	Upon conclusion of the AASHTO revision agenda items discussions, Sean asked Sonya if re:source had revisions to the AASHTO Standards with which the QAC could assist. She said that she wasn't aware of any at this time, but she will keep it in mind.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
WAQTC FOPS		
BASICS OF COMPACTION AND OTHER BASICS	*Basic of Compaction and Density Control* While revising the *Basics of Compaction and Density Control* to include references to TM 16 and TM 17, Desna noticed that the document is out of date and needs revising. The use of terms in WAQTC FOPs and AASHTO Standards have evolved over time and there are instances where active voice should be used. Desna asked the QAC to review and provide feedback for discussion and possible approval at the 2021 QAC Summer Meeting. She also asked for approval for her to review and update the Basics for the other modules in advance of the 2021 Summer meeting. The committee briefly reviewed the proposed revisions to *Basic of Compaction and Density Control* to understand the need for review of the other 'Basics' sections. The committee approved review and revision of the other modules 'Basics' sections for the 2021 Summer Meeting. *Desna will revise the* Basics of Aggregate*,* Basics of Asphalt*, and* Basics of Concrete *and distribute for review before the 2021 Summer Meeting.* *All of the 'Basics' sections will be on the 2021 Summer Meeting Agenda.*	DESNA BERGOLD
ADD REVIEW QUESTION TO R 90	*FOP for AASHTO R 90, Sampling Aggregate Products* During the 2020 manual update review, Misty noticed Review Question 3, that was referring to sampling from a stockpile, was removed and not replaced. She thinks another review question should be added. Desna volunteered to draft a replacement question for review during the 2021 Summer Meeting. *Desna will draft a new question for the FOP for AASHTO R 90 Review.*	DESNA BERGOLD
T 176 6A AND 6B	*FOP for AASHTO T 176, Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test* Misty also noticed during the update review, that Step 6a is labeled 'Mechanical Method,' 6b is 'Manually-operated Shaker Method,' and 6c is 'Hand Method.' She thinks that 6b should	

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	be just 'Manual Method.' All agreed. This will be drafted for final approval during the 2021 Summer Meeting. *Desna will draft revision for 2021 Summer Meeting.*	DESNA BERGOLD
FOP FOR AASHTO R 60	*FOP for AASHTO R 60, Sampling Freshly Mixed Concrete* * During the 2020 Executive Board Summer meeting, the QAC proposed developing an FOP for AASHTO R 60 for the FOP Library. Some agencies require this sampling method in certain situations and contracts. The Board approved. The committee reviewed WAQTC TM 2 and AASHTO R 60 and determined that TM 2 would require very few revisions to comply with AASHTO R 60. The main differences are that R 60 requires the sample to be obtained in multiple increments in the middle of the load and R 60 does not include sampling from a pump or conveyor system. (See discussion under 'AASHTO Concrete Methods'). Revisions to TM 2 were made to match R 60 and renamed. The committee will recommend the FOP for AASHTO R 60 to the Board for approval. *The FOP for AASHTO R 60 will be presented to the Board for approval and inclusion in the FOP Library.* *This section was not included in the original approved meeting minutes. It was added 4/21 from meeting notes with QAC approval.	SEAN PARKER
OTHER		
EXAM TASK FORCE DIRECTION FROM THE BOARD	*Exam Task Force* During the Executive Board Fall Teleconference, a task force was formed to: • Identify what new questions would need to be developed for the current exams to comply with ASTM D3740 and C1077. • Determine what changes would need to be made to the program and *Administration Manual,* if any. • Review the unique scoring of the exams. The task force met 12/17/20 and recommended the following actions to the Board: 1. Forward the 'WAQTC Exams – additional questions spreadsheet' to the QAC with direction to use the information to improve the written exams.	

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	2. Direct the QAC to develop additional questions for the Embankment & Base and In-Place Density written exams to meet the criteria of *ASTM D3740, Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.* 3. Table discussions of whether to develop additional questions for the Aggregate and Concrete modules to meet *C1077, Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation,* requirements until the above efforts are complete. 4. Disband this Task Force and, if necessary, form another if C1077 discussions resume. The Board Members were polled and approved the above recommendations. The committee reviewed the 'WAQTC Exams – additional question spreadsheet' and discussed the number of questions required to achieve the second directive. Desna explained that one recommendation from the task force is to initially develop one question for each requirement and use them for all three iterations of the exams to reduce the number of questions that need to be written. Alternate questions can be developed at a later date. Desna volunteered to write the additional questions listed in the spreadsheet and present them to the committee for review. Chris expressed a great deal of concern that possibly doubling or tripling the number of questions on the exam would add a significant amount of time to administer the written exams. With programs already stretched thin, this may be a further hindrance. Kevin agreed and asked if there would be an option to continue using the existing exams. Desna explained that if WAQTC, through the Board and QAC, adopted new exams, that would not be an option and maintain reciprocity. The committee asked if there would be additions to the performance exam to meet the ASTM criteria. Desna indicated that as the performance is very thorough, she thought adjustments would be minimal if at all. Sonya indicated that this was not a big concern as D3740 requires practical demonstration every 2 years and AASHTO R 18 requires it every year. This requirement is handled within the laboratories' Quality Systems Manuals.	

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	Many expressed the opinion that as the member agencies do not require D3740 it is not necessary. Dan mentioned that AKDOT & PF needs to address ASTM accreditation because they are also responsible for the airports. Chris suggests the committee inform the Board that meeting D3740 would create unnecessary issues for qualification bodies in the member agencies and express several members concerns. Sean recommended that the additional questions be developed as they would be beneficial to the program. He also said that the committee's concerns would be brought to the Board at the Spring meeting. *Desna will develop additional questions for the* Embankment & Base and In-place Density *written exam for QAC review.* *Sean Parker will present the QAC's concerns about incorporating additional test questions in the exams.* *The QAC's concerns will be included on the Executive Board Spring Meeting agenda.*	DESNA BERGOLD SEAN PARKER
ADMINISTRATION MANUAL / RPIH REVISIONS	Desna informed the committee of the recent *Administration Manual* revisions that have been approved by the Board. Additions are in red below. Page 11: Access to exam materials and answer keys is limited to the following personnel, when and as needed in carrying out their responsibilities in the Qualification program: • program administrative personnel in the inventory, storage, and reproduction of the exam materials • examination Administrators, Scorers, or performance exam Examiners in the administration and scoring of exams • program administrative personnel in the recording of exam results, storing completed exams, and destroying old exams • selected individuals or subject-matter experts who have been assigned and authorized by the WAQTC to review, assess, update, revise, and validate exam materials • consultant personnel that have been approved, in writing, by the Executive Board During the Board Fall Teleconference, Desna was asked to draft an addition to the *Administration Manual* to address the use and	

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	control of the training materials. The approved language will be added on page 14 after 'Updates to the Registration, Policies, and Information Handbook': **USE OF COURSE MATERIALS BY AN ACCREDITED CONTRIBUTING MEMBER** Accredited Contributing Member Agencies may use the course materials as necessary to meet the Agencies' needs provided the requirements of the section titled 'Agency Personalization /Alteration of Materials' are met. These sections are unique to the *Administration Manual* and will not affect the *Rights, Policies, and Information Handbook* (RP&IH). The committee discussed the 'Retention of Written Examinations' section. This section states, 'After each Qualification examination process, all used exam materials, both passing and failing, will be retained, in conformance to guidelines contained in the section entitled Examination Materials Security, by the Agency providing the Qualification examination, for a period of one (1) year and **will then be destroyed** by shredding or other effective method.' Some agencies are retaining the exams or just the participants answer sheets for the duration of the qualification. The committee would like the Board to discuss revising this language to allow this practice. *'Retention of Written Examinations' section will be included on the agenda for the Executive Board Spring Meeting.*	DESNA BERGOLD
ACI AGGREGATE CERTIFICATION	Oak Metcalfe, MDT, asked the committee their opinion on using the American Concrete Institute's (ACI) Aggregate Testing Technician certification to satisfy the requirements of WAQTC AgTT where they are the same, similar to the reciprocity given for the ACI Concrete Field-Testing Technician Grade I as outlined in the *Administration Manual*. ACI Aggregate Level I certification does not include T 335 (fracture face) or T 176 (sand equivalent) so a technician would have to take the written and performance exams for those methods to meet AgTT. ACI does have performance exams similar to WAQTCs. Misty was surprised that ACI does not include fracture. She wondered if it was because ACI is concrete focused.	

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	Sonya informed the committee that ACI Aggregate Level II has additional test methods and does include T 335 and T 176 and a few more methods that AgTT does not cover. Randy says WSDOT has no intention of accepting any other entities' testing certification except ACI Concrete Field Level I for CTT and ACI Concrete Strength, for which WAQTC does not have a certification. Lori feels that it is risky and confusing to cobble a qualification together by using ACI Aggregate Level I and parts of WAQTC AgTT. She would be more comfortable discussing the use of ACI Aggregate Level II if WAQTC were to consider reciprocity. The committee agreed that they would not recommend revising the program to accept ACI Aggregate certifications for reciprocity. *Desna will convey the committee's concerns and the minutes of this discussion to Oak Metcalfe.*	DESNA BERGOLD
OTHER ITEMS		
CDOT VIDEOS	At the end of the Embankment/Base and In-place Density Test Methods discussion, Chris asked if anyone on the committee had an opportunity to review the videos CDOT will be using for training. He provided the committee with a link on Jan. 14th and is seeking the committee's approval to move forward. Desna referred to the minutes of the Board Fall Teleconference that states: *CDOT may use WAQTC materials in their training.* *CDOT will post their training videos to their training website and make them available for QAC to access.* Chris was told he needed to seek approval but as that is not the case, CDOT will move forward with their training plans. Chris asked Misty how MDT was able to satisfy security concerns in order to deliver written exams online. She said that they use all the written exam questions as a pool and randomly generate each exam independently so that no two exams are exactly alike. They also have a strict time limit on the exams, 30 min., which is not enough time to reference any materials, and the technician only sees one question at a time. As soon as the test is complete, the program informs Misty and provides information on the time it took to complete the exam.	

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	Gilbert said that when UDOT delivers the written exam electronically the technicians are required to come to UDOT's facility and use UDOT's devices. Chris is concerned that a technician could take a 'screen shot' or picture. Misty indicated that although it is possible, MDT is comfortable that with time limits, randomly generated questions, and only one question on the screen at a time; attempts to take pictures would not be beneficial. Nassim mentioned that, as someone who has recently taken a lot of tests, there is a limit to how secure an exam can be. Most often one goes into a test with an idea of what questions cover. Kevin said that WSDOT had many of the same concerns and have been discussing options with a company called Prometric. Prometric said that their programs can handle the two-tiered scoring WAQTC uses for their exams. *CDOT will move forward with their video training program.*	
COMPUTER-BASED WRITTEN EXAMS	*Option for Written Exam Delivery* (A further discussion of WSDOT's discussions with Prometric was held after Chris had left and Randy had joined the meeting.) Randy discussed WSDOT's conversations with Prometric. Prometric provides ACI examinations at the Prometric testing centers. Originally WSDOT wanted to do the same, but they discovered this approach would be cost prohibitive. To use Prometric testing centers and personnel to administer the exams, at least $50,000 per year would need to be spent at $157 per exam which is over 300 exams per year. WSDOT then explored another Prometric option for remote testing, delivery of the exams online. Using this system, when a participant begins an exam, the Prometric program shuts down the computer's functionality except what is necessary for the examination. Prometric's program allows a proctor to monitor the participant by using the participant's computer's camera. The proctor and the program assess eye movements and other signs of cheating (biometrics). Upon signs of cheating the proctor confers with a second proctor and if there is reason to believe a participant is cheating the exam is stopped and the participant's employer and WSDOT is informed. WSDOT would expect the participant's employer to provide a room and computer, without peripherals, at the employer's facilities in which a technician can take the exam.	

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	WSDOT received a proposal from Prometric which Randy shared with the committee. The proposal quoted an implementation fee of $5200 and a charge of $50 per exam. WSDOT expects the participant and/or their employer to pay the exam fee. WSDOT will most likely pursue this option for exam delivery, the Executive Board will be consulted if the *Administration Manual* will need to be revised. Sharon wondered that if there is enough interest from WAQTC member agencies, perhaps the pooled fund could be pay for the implementation fee. Dan said that AKDOT is very interested in this option for written exam delivery and he intends to work with Randy. Gilbert asked if the retest is covered in the $50 fee, Randy was not certain and said they will have to iron that out. Randy has not discussed reexaminations with Prometric, there may be a lower fee if just a module or two requires retesting. Dan said that if the participant pays the full price for the retest, it may encourage more studying. Gilbert outlined the issues UDOT has had with the two-tiered scoring on their Learning Management System (LMS). The system cannot deliver just a portion of the exam if just a module is failed. Scott Nussbaum intends to discuss the exam scoring system with the Board during the Spring Meeting. Kevin and Dan suggested WAQTC could leave the two-tiered scoring but that if any portion of the exam is failed a complete retest is required. Misty asked if the implementation costs were per exam or all of the written exams. Kevin said that the quote is for all the exams but there is an annual fee for revisions and updates. Dan mentioned that AKDOT has already used Prometric for other exam delivery and has had positive experiences. Randy said that he will keep the committee updated and that he will ask Garrett Webster, WSDOT's Executive Board member, to present their intention during the Spring Meeting. *Randy will inform the QAC of WSDOT's progress with Prometric.* *Computer-based online exam delivery will be included on the Spring Meeting agenda.*	RANDY MAWDSLEY DESNA BERGOLD

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UPCOMING MEETINGS	Gilbert asked when the 2021 Summer Meeting will be held. The Summer Meeting is scheduled for July 19th thru 23rd. The committee anticipates that it will also be a virtual meeting, but Sean will ask the Board to make a final decision during the Spring Meeting. Sean thanked everyone for attending. *The location of the Summer Meeting will be on the Spring Meeting agenda.*	DESNA BERGOLD