WAQTC

2020

Strategic Plan

Western Alliance for Quality Transportation Construction

2020 Strategic Plan

The Western Alliance for Quality Transportation Construction (WAQTC) is a voluntary organization, whose membership recognizes the advantages of a unified effort leading to significant accomplishments.

The WAQTC is focused in three main areas:

1. Standardization of test methods (WAQTC, AASHTO, ASTM)
2. Certification of sampler / testers through the Transportation Technician Qualification Program (TTQP)
3. Working together on national programs of interest including research, training, and technology deployment

MISSION STATEMENT:

Provide leadership in the pursuit of continuously improving quality in transportation construction.

GOALS

To accomplish this mission, the WAQTC has established the following goals:

- **Promote an atmosphere of trust, cooperation, and communication among government agencies and the private sector**
- **Respond in a unified and consistent manner to identified quality improvement needs and new technologies that impact the products we provide**
- **Provide a forum to promote uniform test standards**
- **Provide highly skilled, knowledgeable materials sampling and testing technicians**
- **Provide reciprocity for qualified testing technicians among accredited agencies**

PLAN

To achieve the goals, the WAQTC has established this strategic plan to guide our efforts and prioritize the expenditure of funding in the coming years. The Executive Board, as defined in the WAQTC By-Laws, will oversee the execution of this plan through its Qualification Advisory Committee (QAC). The Board will review and update this plan annually and prioritize work for the coming year.

Promote an atmosphere of trust, cooperation, and communication among government agencies and the private sector

On-going Activities

- **Update and maintain the WAQTC website**

Long term Goals

- **Development of Presentation Materials**
  Presentations on WAQTC: the benefits of membership, technology transfer opportunities, activity reports, training modules, etc.

Respond in a unified and consistent manner to identified quality improvement needs and new technologies that impact the products we provide

On-going Activities

- **Evaluate training materials yearly for content**
  Part of the ongoing QAC effort.

Short term Goal

- **Member Agency teleconferences to share developments in training and certification platforms.**

Long term Goal

- **Develop online training and identify means to make available as a field reference.**

Provide a forum to promote uniform test standards

On-going Activities

- **Identify proposed modifications or new AASHTO test methods through the QAC.**
  The Executive Board will assign a champion for each proposed new or modified procedure who will track progress of WAQTC proposed changes through the AASHTO process.

  The WAQTC has become a powerful influence with the AASHTO Committee on Materials and Pavements (COMP) and the benefits/costs of this effort and the working committee (QAC) are included in the on-going efforts.

- **Maintain a Field Operating Procedure (FOP) library**
  Standardized FOPs for agencies to use creates consistency in test methods. Agencies do not need to repeat the effort and expense of developing FOPs or state test methods.

Long term Goals

- **Evaluate the need for WAQTC training on equipment calibration, standardization and checks process**

Provide highly skilled, knowledgeable materials sampling and testing technicians

On-going Activities

- **QAC Sub-Committee to Review Exam Question Selection**
  The QAC will develop objectives for the written exam and assign a subcommittee to review question selection.
- **Develop an Exam question 'pool' for each discipline**
- **Develop 3-5 New Questions per Year, per Module**
  The QAC will develop new questions for each module each year to keep written exams fresh and current.
- **Maintain existing WAQTC Instructional Materials**
  Keep Instructional Materials updated to current references and formatting.

Short term Goals

- **Develop training materials for Self-consolidating Concrete**
- **Initiate Self-consolidating Concrete Testing Technician (SCTT) qualification**

Long term Goals

- **Develop Electronic Question Database – Randomly Generate Questions**
  Develop enough exam questions that a database can create a randomly generated 'unique' exam for each participant.
- **Evaluate feasibility and ramifications of allowing the use of the training materials and qualification process by other entities.**

Provide reciprocity for certified testing technicians among accredited Agencies

On-going activities

- **Communicate with non-member agencies on the benefits of membership.**
- **Reciprocity Audits of Member States**
  Audit the WAQTC member organizations every three years to ensure qualification criteria are being adhered to within the program.
- **Operations Manual for WAQTC Member Agencies**

Long term Goals

- **Increase reciprocity to states outside of membership**

2020 Planned Work

Priorities of the Executive Board:

- Continue work on 'on-going' activities
- Evaluate existing training materials for needed improvements / updates
- Member teleconferences to share developments in training and certification platforms
- Initiate Self-consolidating Concrete Testing Technician (SCTT) qualification

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Appendix: 2019 Completed Items

- **Developed TM 14, Asphalt Mixtures Laboratory Prepared Specimens standard practice.**
- **Developed TM 16, Determining the Percentage of Flat and Elongated Particles in Coarse Aggregate**
- **Developed FOP for AASHTO T 304, Uncompacted Void Content of Fine Aggregate**
- **Performed Reciprocity Audits of Member States**
- **Developed WAQTC Travel policy**

AASHTO revisions:

- **PP 97; Determination of Constant Mass –** Developed new provisional standard. Many test methods and practices use the term without a definition or a discussion on how to achieve it.
- **R 39, Making and Curing Concrete Test Specimens in the Laboratory –** Extensive revisions which included adding steps for Self-consolidating Concrete (SCC), matching requirements in T 23, and further corrections to comply with AASHTO Style Manual.
- **R 47; Reducing Samples of Asphalt Mixtures to Testing Size** – Revisions include changing the term HMA to asphalt mixtures, maximum temperature for heating equipment, and adding heating of equipment in 10.1 and 12.1.
- **T 30; Mechanical Analysis of Extracted Aggregate –** Moved discussions of overloading sieves, shaker time, and sieving efficiency into Annexes.
- **T 99; Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in) Drop –** Assisted AASHTO re:source with revision proposals addressing the use of the extruder.
- **T 121; Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete** – Revised the vibrator requirements to match *T 23, Making and Curing Concrete Test Specimens in the Field.*
- **T 152; Air Content of Freshly Mixed Concrete by the Pressure Method –** Revised the vibrator requirements to match *T 23, Making and Curing Concrete Test Specimens in the Field.*
- **T 180; Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in) Drop – A**ssisted AASHTO re:source with revision proposals addressing the use of the extruder.
- **T 209; Theoretical Maximum Specific Gravity (G_{mm}) and Density of Asphalt Mixtures -** Extensive revisions

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Appendix: 2018 Completed Items

- **Addressed copyright concerns on produced standards and reproduced training materials.**

AASHTO revisions:

R 18; Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories – Added Note 17: 'The standard test method may be any identified test method: international, national, regional, or agency.'

R 25; Technician Training and Certification Programs – Revised 'qualification' to 'certification.'

R 90, Sampling of Aggregate Products – New AASHTO method.

T 23, Making and Curing Concrete Test Specimens in the Field – Removed references to carboard molds, split Note 8 into two notes for clarity.

T 99; Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in) Drop – Added equivalent more intuitive formula for calculating for calculating the corrected density for oversized particles (Section A1.6.)

T 113, Lightweight Particles in Aggregate – Removed kerosene and tetrabtromoethane mixture for a heavy solution (5.1.2), added language in sample preparation to address fine and coarse aggregate (6), included decanting as an option for fine aggregate (7.1.4.2), and creating the 'steps' for the procedure (7).

T 119; Slump of Hydraulic Cement Concrete – Revised Section 4.2 in Significance and Use, to clarify removing aggregate retained on the 37.5 mm [1.5 in.] sieve. Revised into 'Steps.'

T 180; Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in) Drop – Added equivalent more intuitive formula for calculating for calculating the corrected density for oversized particles (Section A1.6.)

T 272, One-Point Method for Determining Maximum Dry Density and Optimum Moisture – Included references to T 99 and T 180 when oversized particles are removed while performing the one-point determination and added to and corrected the Report section.

T 355; In-Place Density of Asphalt Mixtures by Nuclear Methods – Included an alternate method to determine in-place density: a single direction/location with a four-minute test. Other editorial revisions.

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Appendix: 2017 Completed Items

- **WAQTC Performance Examiner Orientation**
  Guidelines: The Performance Examiner reviews and signs at the beginning of the performance exam process; included in the Operation's Manual.

- **Reciprocity questionnaire**
  Sent to member states for response at least every three years according to the TTQP Operational Agreement; included in the Operations Manual.

- **AASHTO Revision Proposal Process**
  Process for a member agency seeking WAQTC support for AASHTO Standards proposals; included in Operation's Manual.

AASHTO revisions:

- **T 23; Making and Curing Concrete Test Specimens in the Field**
  Added section for Self-Consolidating Concrete, other revisions for consistency.

- **T 121; Density (Unit Weight), Yield, and Air Content (Gravimetric) of Freshly Mixed Concrete**
  Corrected cross referencing, definitions, and errors. Added tapping 'around the perimeter' instead of sides after rodding.

- **T 152; Air Content of Freshly Mixed Concrete by the Pressure Method**
  Removed listed Standards from 'Referenced Documents' that are not referenced in the document. Use of the term 'measuring bowl' throughout for consistency. 'Tap around the perimeter of the measuring bowl.'

- **T 176; Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test**
  Added process for mixing working solution in section 4.9.

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Appendix: 2016 Completed Items

- **Develop Roles and Responsibilities guide for QAC and Executive Board members**
  Roles and responsibilities guidelines are approved and will be included in the Operations Manual.

AASHTO revisions:

- **R 75; Developing a Family of Curves**
  This new Standard Practice addresses developing a family of curves

- **T 121; Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete**
  Revised to include tapping the sides after consolidating each layer with a vibrator and added sections to address use of the method on Self-Consolidating Concrete.

- **T 152; Air Content of Freshly Mixed Concrete by the Pressure Method**
  Revised to include tapping the sides after consolidating each layer with a vibrator and added sections to address use of the method on Self-Consolidating Concrete.

- **T 308; Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method**
  Added a temperature range for the ignition furnace in apparatus.

- **T 272; Family of Curves – One-Point Method**
  Redeveloped and renamed *One-Point Method for Determining Maximum Dry Density* and Optimum Moisture. To work in conjunction with the new *AASHTO Standard Practice R 75; Developing a Family of Curves*. T 272 originally did not adequately address developing the family of curves.