

## 2023 ATMM Changes

Global - Density is represented by  $\rho$  in “Calculations” and “Examples” section of test methods.

Global – *ATM 506 WAQTC FOP for AASHTO T 23 Method of Making and Curing Concrete Test Specimens in the Field* is renamed to *ATM 506 WAQTC FOP for AASHTO R 100 Method of Making and Curing Concrete Test Specimens in the Field*

*Note:* In 2022, AASHTO released updated test Methods for  
Earthwork (200): T 99/T180, T 255/T 265, T-310  
Bases and Aggregate (300): T 85,  
Asphalt (400): T 166, T 209, T 308, T 312, T 329, T 355  
Concrete (500): T 309, WAQTC T 23 is now AASHTO R 100

### Section 200

ATM 202 – Tables 1 and 2 inverted to match other WAQTC Test Method sieve size tables. Clarification of heat sources and sample preparation.

ATM 207 - Rammer drop tolerances added. Clarification of moisture sample requirements.

ATM 213 – Scope clarified. Trench wall correction guidance expanded.

ATM 215 – Clarification of sampling and procedure. Clarification of moisture sample collection.

### Section 300

ATM 301 – “mix thoroughly” added to procedure steps.

ATM 303 – AASHTO T 248 renamed to AASHTO R 76. “Sheet” changed to “tarp” throughout method. Guidance page #3 changed required splitter bias check “on Assurance Sample splits, at a minimum.”

ATM 304 – “greater than 0.3%” changed to “not more than 0.3%” throughout method. Slight modifications to calculation examples.

ATM 305 – “fractured criteria” added to “Terminology.” “Calculation Example” terms defined.

ATM 307 – Modifications to balance, funnel, Manual Shaker and Sieve in “Apparatus.” “Sample Preparation” steps renumbered. Procedure step 6 b renamed to “Manual Method.” Note 7 moved to Procedure step 10 b.

ATM 308 – Clarification added regarding suspension and submerging of sample basket

### Section 400

ATM 402 – Added “twice, once in each direction” to step 2 of “Attached Sampling Devices”

ATM 404 – Added “shovel” to Apparatus.

ATM 406 - Ignition Furnace temperature range changed to “between at least 530 and 545°C (986 and 1013°F) and have a temperature control accurate within  $\pm 5^{\circ}\text{C}$  ( $\pm 9^{\circ}\text{F}$ ).” Apparatus now requires that the furnace allows an end mass loss of both 0.01 and 0.02 percent. *Note 3*, regarding  $\pm 5\text{g}$  balance

difference, added to Procedure. Note 2, regarding  $\pm 5g$  balance difference, added to Guidance Page. Procedure steps modified.

ATM 407 – Temperature range of thermometer changed to “50-200°C (122 to 392°F)”

ATM 408 – “Wetting Agent” added too Apparatus list. Procedure modified. Mass verification “Calculation” and “Example” added. Annex B: Table B1 modified.

ATM 409 – Thermometer accuracy increased and temperature range added. Short term conditioning of plant-produced mix clarified. Vacuum time reduced to  $15 \pm 1$  min. For 2 increment samples, allowable difference in  $G_{mm}$  is reduced from 0.014 to  $0.013$ . Clarification of bowl and flask Standardizations.

ATM 410 – Methods A and B: Oven temperature requirement added. Thermometer range expanded to 15 to 45°C (59 to 113°F). Water bath temperature changed to  $77 \pm 2$ °F. Method C: Oven temperature change– see Guidance Page preceding the test method.

## Section 500

ATM 502 – Minor changes to thermometer requirements. “Calibration of” changed to “Standardization of”

ATM 503 – Step 13-15 combined and modified to three sub steps.

ATM 504 – Symbol for density used in equations is now  $\rho$

ATM 505 – Procedure step 5 no longer allows “tilting” the air meter during filling. Instead, “Jar the meter gently”

ATM 506 – AASHTO T 23 is now AASHTO R 100. Pre strength-test of cylinders temperature requirement added.

ATM 530 – Extensive revision to method steps and report sheets.

## Section 600 - no change

### Special Provisions (SP)

**SP 1** “HMA” replaced with “Asphalt Mixture.” Several new definitions added.

**SP 5** AASHTO T 23 renamed to R-100

**SP 6** now refers to rounding rules in the *Alaska Construction Manual (ACM) Sec 4.7 Degree of Accuracy* found at: <https://dot.alaska.gov/stwddes/dcscnst/constructionmanual.shtml>

**SP 10** Four new work sheets added for creating and testing Standard Density determination using a Control Strip ( ATM 309, ATM 213, ATM 411, ATM 412)

**SP 12** Updated to include new material designations and new test abbreviations.