The Construction Field Services (CFS) Division has revised the Hot Mix Asphalt (HMA) Production Manual. A brief description of the major revisions is presented below.

General:
- Updates made to formatting of the document and table of contents.

Section 1: Procedures Manual for HMA Mix Design Processing
- Marshall Mixtures – Subsection 4: Comment added “2C Designs require 7000g of mixture at optimum”; plus some rearranging of information. (Page 6)
- Marshall Mixtures – Subsection 5: Added two new points at the end. (Page 6)
- Superpave Comparison Level Design Submittal-Subsection 4: Removed “2-1500 grams samples of mixture (Virgin Mix Design only)” and “2-1900 grams samples of mixture “Reclaimed Asphalt Pavement Mixture only”; plus some rearranging of information. (Pages 11, 12)
- Superpave Comparison Level Design Submittal-Subsection 5: Added two new points at the end. (Pages 12, 13)
- Aggregate Requirements-Subsection 3: Added new note “AWI will not be assigned to previously approved mix designs. MDOT will approve AWI for any design that can be used as a top course.” (Page 24)
- New sub-section added under “Calculations” as “4”: Mix Designs with Reclaimed Asphalt Pavement (RAP) and Recycled Asphalt Shingles (RAS”). (Page 19)
- Aggregate Requirements-Subsection 4“10% Minimum Aggregate Requirement”: Removed. (Page 24)

Section 3: HMA QA/QC Procedures for Field Testing
HMA Sample Reduction Procedure (Page 46)
- Figure added.
- First point moved to last.
- Some verbiage changed/modified.
Bulk Density Procedure

- Removed.

Checklist for Gyratory Compactor (Page 49)

- Last two sentences of point 4 moved to point 2.
- Additional information added on how to ensure saturated surface dry gyratory specimen.

Extraction Procedures (Page 51)

- Checklist for HMA Mixture Analysis Centrifuge Extraction removed.

Checklist for HMA Mixture Analysis Vacuum Extraction (Page 51)

- Point 8 was reworded as follows: “If the sample weight exceeds 2000 grams, it shall be split into two extractions. The weights from both extractions shall be combined before calculating percentages.”

Checklist for Ignition Furnace (Page 54)

- Removed.
- The following information was added regarding Ignition Furnace: Procedure; Contractor's Responsibilities for the Establishment of Ignition Oven Correction Factors; Calibration of Balance; Lift Test; Temperature Verification inside the Ignition Furnace (In-House Procedure); Maintenance;

Formulas for Calculating Asphalt and VMA (Page 60)

- Title changed, formulas updated.

Procedure for Determining Pavement Density (Page 62)

- Contents divided into Dry Back Method and Core Dry Method.

Rounding Off Method (Page 64)

- Title changed to “Rounding Method”; ASTM E29-93a changed to ASTM E29-08; three additional examples added.

Core Handling and Transporting Procedure (Page 67)

- Two additional points added:
  - 9. Contractor may provide his own core transport/storage device.
  - 10. If no core transport/storage device is provided, the core transporting procedures will be agreed upon at the pre-production meeting.

Section 4: HMA Lab and Technician Qualification Program

- Table: Minimum Test Methods Required for QA/QC Laboratory Qualification.
- Marshall Test Procedure removed; Ignition Method, Fine Aggregate and Coarse Aggregate Specific Gravity added to the Table.
- Section 4 was removed from the MDOT HMA Production Manual and added to Section 5.03.01 of the MDOT Materials Quality Assurance Procedures Manual (MDOT MQAPM).

The updated manual is available online at:
FHWA Approval: 11-24-14

Index: Procedures Manuals

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