

# ALABAMA DEPARTMENT OF TRANSPORTATION

DATE: June 21, 2021

Special Provision No. 18-1121

EFFECTIVE DATE: TBD

SUBJECT: Stone Matrix Asphalt Mix Design.

Alabama Standard Specifications, 2018 Edition, SECTION 423 shall be revised as follows:

## SECTION 423 STONE MATRIX ASPHALT (SMA) (FIBER STABILIZED ASPHALT CONCRETE)

### 423.03 Design.

*Article 423.03 shall be replaced with the following:*

### 423.03 Design.

All SMA mixes shall be designed according to ALDOT-395, SMA Mix Design. SMA mixes shall be designed using a 50 blow Marshall design or a 60-gyration gyratory compactor design. The SMA shall have a minimum VMA of 17, a  $VCA_{MIX}$  less than the  $VCA_{DRC}$  (calculating Voids in the Coarse Aggregate is explained in ALDOT-395 SMA Mix Design) and air voids of 3.5% for SMA mixes containing RAS or 4.0 % for all other SMA mixes. The SMA mix shall be designed with a minimum tensile strength ratio of 0.80 according to ALDOT-361. All SMA mixes shall be tested for susceptibility to rutting in accordance with the latest approved version of AASHTO T 324 Hamburg Wheel-Track Testing of Compacted Asphalt Mixtures. All Mixes shall be tested at 50°C. SMA mixes using PG 67-22 binder shall exhibit 10 mm rutting or less at 10,000 cycles. SMA mixes using PG 76-22 binder shall exhibit 10 mm rutting or less at 20,000 cycles.

Proposed