

SECTION 333 TYPE III ASPHALTIC CONCRETE

333-1 Description.

Construct an asphaltic concrete pavement course composed of a mixture of stone or slag screenings with silica sand and asphalt cement, and mineral filler if needed.

Meet the plant and equipment requirements as specified in Section 320. Meet the general construction requirements as specified in Section 330.

The Engineer will accept work on a LOT to LOT basis in accordance with the applicable requirements of Sections 5 and 6. The Engineer will determine the size of the LOT as specified in 331-5 for the bituminous mixture accepted at the plant and as specified in 330-11 for the material accepted on the roadway.

333-2 Materials.

333-2.1 Bituminous Material: Use Asphalt Cement, Viscosity Grade AC-20 or AC-30 meeting the requirements of 916-1.

333-2.2 Aggregate: Use aggregate consisting of crushed stone or crushed slag screenings, or a combination of these screenings with silica sand, that meets the gradation requirements and that provides the required stability of the mix, as specified below. Use crushed stone or crushed slag screenings that meet the requirements of Section 901. Use sand that meets the requirements of 332-2.2.3. Do not use aggregate containing any appreciable amount of phosphate.

333-2.3 Mineral Filler: If needed, meet the requirements of Section 917.

333-3 Composition of Mixture.

333-3.1 General: Use a bituminous mixture composed of a combination of aggregate (coarse, fine, or mixtures thereof), mineral filler if required, and bituminous material. Size, uniformity grade, and combine the several aggregate fractions in the proportions that the resulting mixture meets the grading and physical properties of the verified mix design.

The Contractor may use RAP meeting the requirements of 331-2.2.4 as a substitution for a portion of the combination of aggregates. If using RAP, the Contractor may use a recycling agent in accordance with the requirements of 331-2.2.5 in the mix in lieu of asphalt cement.

The Contractor may use recycled crushed glass meeting the requirements of 331-2.2.6 as a substitution for a portion of the combination of aggregates.

333-3.2 Grading Requirements:

333-3.2.1 General: Use a mix design that has been verified by the Engineer and meets the design range specified in Table 331-1.

333-3.2.2 Gradation: When tested before entering the asphalt plant in the combination to be used, ensure that the aggregate, including any mineral filler, does not contain more than 10% by weight of material passing the No. 200 [75 μ m sieve]. Do not use any screenings in the combination of aggregate that contain more than 15% of material passing the No. 200 [75 μ m] sieve. When blending two screenings to produce the screenings component of the aggregate, the Contractor may allow any component of such screenings to contain up to 18% of material passing the No. 200 [75 μ m] sieve. The Contractor may wash screenings to meet these requirements. Use screenings that are free from lumps and foreign matter.

333-3.2.3 Proportions of Sand and Screenings: Allow no more than 25% by weight of the total aggregate used to be local sand. In addition to the local sand, the Contractor may use commercial washed sand in a quantity not to exceed 15% by weight of the total aggregate. Obtain the commercial washed sand from an approved source having a Department sand mine number and meeting the requirements of Section 902 except those in 902-2.2.

If used in the mixture, consider the sand portion of RAP material to be local sand.

333-3.3 Mix Design:

333-3.3.1 General: Meet the mix design requirements of 331-4.3. In addition to these requirements, include, in the mix design, test data showing that the material as produced will meet the requirements of Table 331-2.

333-3.3.2 Stability: Combine the constituents of the mixture in such proportions as to produce a mixture having Marshall properties within the limits shown in Table 331-2.

333-3.4 Contractor's Quality Control: Provide the necessary control of the bituminous mixture and construction in accordance with the applicable provisions of 330-2.2 and 331-4.4. Furnish materials that meet the verified mix design. For the extraction gradation analysis, meet the provisions of 331-4.4.2 and Table 331-3. For plant calibration, meet the provisions of 331-4.4.3 and Table 331-3.

333-4 Acceptance of Mixture.

333-4.1 Acceptance at the Plant: The Engineer will accept the bituminous mixture at the plant with respect to gradation and asphalt content in accordance with the requirements of 331-4.

333-4.2 Acceptance on the Roadway: The Engineer will accept the bituminous mixture on the roadway with respect to compacted density and surface tolerance in accordance with the applicable provisions of 330-11 and 330-13.

333-4.3 Additional Tests: The Engineer will apply the provisions of 331-5.5 to Type III Asphaltic Concrete.

333-5 Method of Measurement.

The quantities to be paid for will be measured as specified for Type S Asphaltic Concrete under the applicable provisions of 331-6.

333-6 Basis of Payment.

Price and payment will be full compensation for all work specified under this Section.

Payment will be made under:

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| Item No. 333- 2- | Type III Asphaltic Concrete - per ton. |
| Item No. 2333- 2- | Type III Asphaltic Concrete - per metric ton. |