

ITEM 18403.170201 M - ASPHALT CONCRETE TYPE 6FX (SPECIAL HIGH FRICTION AGGREGATE)

The requirements of Section 403-Hot Mix Asphalt Concrete Pavement of the Standard Specifications of January 2, 1995 shall apply except as modified and/or revised below.

DESCRIPTION

This work shall consist of constructing an asphalt concrete pavement course in accordance with these specifications and in reasonable close conformity with the required lines, grades, thicknesses, and typical sections shown on the plans or established by the Engineer.

MATERIALS

The materials and composition for these mixtures shall meet the requirements specified for Type 6F top course in Subsection 401-2.01 through 401-2.05 of the Standard Specifications except as noted herein.

"A. Coarse Aggregates. Coarse aggregates used shall be from approved sources and shall meet one of the following requirements:

1. Coarse aggregates shall be crushed limestone having an acid insoluble residue content of not less than 20%, excluding particles of chert and similar siliceous rocks.
2. Coarse aggregates shall be crushed dolomite having an acid insoluble residue content of not less than 17%, excluding particles of chert and similar siliceous rocks.
3. Coarse aggregates shall be crushed sandstone, granite, chert, traprock, ore tailings, slag or other similar non-carbonate materials. Non-carbonate particles are defined as those having an acid insoluble residue content not less than 80%.
4. Coarse aggregates shall be crushed gravel or blends of two or more of the following types of materials; crushed gravel, limestone, dolomite, sandstone, granite, chert, traprock, ore tailings, slag or other similar materials. These aggregates must meet the following requirements:

For Type 6FX mixes - not less than 20% (by weight with adjustments to equivalent volumes for materials of different specific gravities) of the total coarse aggregate particles (plus 3.2 mm material) shall be non-carbonate. In addition, not less than 20% of the plus 6.3 mm particles shall be non-carbonate. Non-carbonate particles are defined as those having an acid insoluble residue content not less than 80%.

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B. Blending. Where coarse aggregates for these mixes are from more than one source or of more than one type of material, they shall be proportioned and blended to provide a uniform mixture.

C. Mix Properties. The mixtures shall meet the Marshall property criteria appearing in Section 401-2.02 Composition of Mixtures.

D. Mix Preparation. The Marshall specimens shall be prepared, mix properties determined, and completed mix design submitted in accordance with the procedures outlined by Department written instructions with the following modifications:

1. Five point asphalt cement content Marshall design is required prior to production. One point designs are not acceptable.
2. The optimum asphalt cement content shall be determined by the "Range" method. Graphs shall be constructed for each of the specified mix design properties (stability, flow, air voids, and VMA) using each property as the vertical axis and percent asphalt cement content as the horizontal axis. The plotted values in each graph shall be fitted with a smooth curve that obtains the "best fit" for all values. A vertical line is drawn at the point where the asphalt cement content provides the acceptable lower and upper limits for the properties of stability, flow, air voids and VMA. The mid-point of the common overlap is the optimum asphalt cement content."

CONSTRUCTION DETAILS

The provisions of Section 401-3 Construction Details shall apply.

METHOD OF MEASUREMENT

The provisions of Section 401-4 Method of Measurement shall apply.

BASIS OF PAYMENT

The provisions of Section 401-5 Basis of Payment shall apply.

Payment will be made under:

ITEM NO.	ITEM	PAY UNIT
18403.170201 M	Asphalt Concrete Type 6FX (Special High Friction Aggregate)	Metric Ton