

SPECIAL NOTE FOR 6 INCH BONDED CONCRETE OVERLAY OF ASPHALT

1) DESCRIPTION

6 Inch Bonded Concrete Overlay of Asphalt will be bid as JPC Pavement - 6 Inch. Conform to Section 501 and other applicable sections of the Standard Specifications as well as applicable standard drawings for JPC pavement except as described in this special note.

2) PREPARATION

After milling to the required depth, fill any cracks that have an opening greater than the maximum-size aggregate used in the overlay with sand, flowable fill, or grout.

Sweep the milled pavement clean of any loose debris. In addition to sweeping, air blast the pavement directly ahead of paving operations. Tack coat will not be required prior to paving. The surface temperature of the asphalt pavement may be no more than 120°F at the point of placement. Sprinkling with water prior to paving may be used to reduce pavement temperature to acceptable levels.

3) REINFORCEMENT

- a) Dowel or tie bars will not be required with the longitudinal or transverse sawed joints. Dowels and tie bars will be required in accordance with the standard specs and standard drawings for construction joints.
- b) Macro Synthetic Fibers shall be used according to the following:
 - i) Provide macro-fibers that are monofilament, non-fibrillated fibers made from virgin polypropylene, polyethylene, or co-polymers that are inert to alkali attack.
 - ii) Ensure the fibers have a minimum tensile strength of 70 ksi, a minimum modulus of elasticity of 800 ksi, a minimum filament diameter of 0.012 inches, an aspect ratio between 70 and 150, and are between 1.0 and 2.5 inches in length.
 - iii) Store the fibers according to the manufacturer's recommendations and keep the material free from dust, dirt and moisture.
 - iv) Use a minimum dosage rate of fibers of 4.0 lb/yd³ of concrete. Determine the final proposed dosage rate through mix testing. Ensure the fiber reinforced concrete mix meets or exceeds a minimum Residual Strength Ratio of 20% with an equivalent flexural strength of 600±50 psi according to ASTM C 1609.
 - v) Ensure the final proposed mix is workable and able to be produced such that balling or clumping of the fibers is not a problem as determined by the Engineer. Utilize a laboratory regularly inspected by the Cement and Concrete Reference Laboratory (CCRL) of the National Institute of Standards and Technology, or other approved reference laboratory, to perform the testing.
 - vi) Before use, submit documentation to the Project Engineer certifying both the fibers and mix meet or exceed the required properties. Sampling will be allowed for testing purposes. A demonstration of the mix production, or trial mix, may be required by the Engineer prior to placing any of the mix on the project.

4) JOINTS.

- a) Longitudinal and Transverse Joints. Place 6 foot longitudinal and 6 foot transverse joint spacing throughout the JPC Pavement – 6 Inch.
- b) Seal all joints with hot-poured elastic joint seal. All joints will be cut to depth of $T/3 \pm 1/8$ inch.
- c) Construction Joints. Construct according to the standard specifications and standard drawings.

5) MEASUREMENT. The Department will measure the quantity of 6 Inch Bonded Concrete Overlay of Asphalt according to Subsection 501.05.

6) PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02075	JPC Pavement-6 Inch	Square Yard

Any preparation work required by section two of this note, with the exception of milling, shall be incidental to “JPC Pavement – 6 Inch”. Macro synthetic fibers, as described in section 3 of this note, shall be incidental to “JPC Pavement – 6 Inch”.