

ITEM 04502.8007 M - CROSS-STITCHING LONGITUDINAL CRACKS IN PORTLAND CEMENT CONCRETE PAVEMENTS

DESCRIPTION Furnish and install deformed bar reinforcement diagonally across longitudinal cracks at locations shown on the plans or where directed by the Engineer.

MATERIALS

Deformed Bar Reinforcement, Grade 400 709-01

Anchoring Material and Dispensing Equipment. Use a pourable anchoring material appearing on the Approved List for §701-07, Anchoring Materials - Chemically Curing. The anchoring material must also

- be a two component structural epoxy,
- contain 100 % solids epoxy,
- be dispensed from side-by-side cartridges using either manually or pneumatically powered injection guns, and
- be dispensed through a static mixing nozzle such that the material is thoroughly and homogeneously mixed without any hand mixing.

Drills. Use a hydraulic drill with tungsten carbide bits capable of drilling the required holes in approximately 30 seconds. The forward and reverse travel of the drills must be controlled by mechanically applied pressure. Mount the drill on a suitable piece of equipment such that it is quickly transported and positioned at each hole location. The drill must rest atop the pavement when holes are being drilled. The drill may not rest on pneumatic tires during drilling. Hand-held drills are not permitted.

CONSTRUCTION DETAILS

Drilling Holes. Drill the existing pavement where depicted in the contract documents or where ordered by the Engineer. Drill holes 3 mm (\pm 1 mm) larger than the deformed bar diameter such that the bars are capable of being grouted in place in accordance with the attached detail. Repair any damage to the existing concrete that results from drilling as directed by the Engineer at no cost to the State. Replace worn bits if the hole diameter is within 2 mm of the dowel diameter.

Cleaning Holes. Clean the drilled holes with oil-free and moisture-free compressed air. The Engineer will check the compressed air stream purity with a clean white cloth. The compressor must deliver air at a minimum pressure of 3.4 m³ per minute and develop a minimum nozzle pressure of 0.63 MPA. Insert the nozzle to the back of the hole to force out all dust and debris.

Deformed Bar Installation. Place the anchoring material in the back of the hole using a nozzle or wand of sufficient length. Insert the dowel such that the anchoring material is evenly distributed around the bar. Use sufficient amounts of anchoring material such that it slightly extrudes out the hole as the bar is inserted. Trowel the anchoring material smooth to the pavement surface.

METHOD OF MEASUREMENT

The number of each deformed bar furnished and installed to the satisfaction of the Engineer.

BASIS OF PAYMENT

In the unit bid price, include the cost of all labor, materials, and equipment necessary to complete the work. Crack sealing will be paid for under a separate item.