**Reviewers: Use this BSP when bridge deck is to be sealed with concrete crack filler.**

CONCRETE CRACK FILLER 4/8/21

**1.0 Description.** This work shall consist of preparing and treating the concrete bridge deck cracks with a high molecular weight methacrylate (HMWM) or methyl methacrylate (MMA) crack filler material. This type of surface treatment shall be in accordance with this job special provision, the standard specifications and the manufacturer’s recommendations. The objective of this treatment is to seal all concrete deck cracks in order to preserve and extend the life span of the deck.

**2.0 Materials.** The low viscosity concrete bridge deck crack filler shall be a high molecular weight methacrylate (HMWM) or methyl methacrylate (MMA) system in accordance with Sec 1053 and shall be on MoDOT’s qualified product list.

**3.0 Construction Requirements.**

**3.1 Equipment.** Application equipment shall be as recommended by the manufacturer. The spray equipment, tanks, hoses, brooms, rollers, coaters, squeegees, etc. shall be thoroughly clean, dry, and free of foreign matter, oil residue and water prior to application of the treatment.

**3.2 Cleaning, Surface Preparation and Sealing.** Surfaces which are to be treated shall meet the approved product's requirements for surface condition. The contractor shall furnish the engineer with written instructions for the surface preparation requirements, and a representative of the manufacturer shall be present to ensure that the surface conditions meet the manufacturer's requirements.

**3.2.1** At a minimum, the surface shall be thoroughly cleaned to remove dust, dirt, oil, wax, curing components, efflorescence, laitance, coatings and other foreign materials. The manufacturer or manufacturer's representative shall approve the use of chemicals and other cleaning compounds to facilitate the removal of these foreign materials before use. The treatment shall be applied within 48 hours following surface preparation.

**3.2.2** Cleaning equipment shall be fitted with suitable traps, filters, drip pans and other devices to prevent oil and other foreign material from being deposited on the surface.

**3.2.3** The deck shall be water blasted to clean out cracks and allowed to dry prior to sealing.

**3.2.4** Before starting sealing operations, all cracks shall be blown out with dry high-pressure air.

**3.2.5** The contractor shall prevent sealer material from leaking through the deck at any cracks, construction joints or at precast panel joints on the bottom side of the deck that reflect through the slab. The contractor shall take measures to treat these areas to prevent loss of material intended to seal the deck.

**3.2.6** The contractor shall follow the manufacturer’s recommendations for a method and material resistant to effects of the deck sealer to prevent leakage of deck sealer through the bridge deck.

**3.3 Application.** After leakage prevention measures are completed, a flood application shall be performed on the entire deck surface to fill all cracks. Flood application and broadcast aggregate shall be placed in accordance with the manufacturer’s application rates.

**3.4 Opening to Traffic.** Traffic shall be allowed on the deck only after the treated area is visibly dry. Dried coating shall not leave residue on glass, painted metal or automobiles.

**4.0 Method of Measurement.** Measurement will be made to the nearest square yard measured longitudinally from end of bridge approach slab to end of bridge approach slab and transversely from roadway face of curb to roadway face of curb. Additional areas to be sealed will be identified on the plans. No deduction will be made for gaps to avoid raised pavement markers, manholes or other obstructions. Final measurement will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. The revision or correction will be computed and added to or deducted from the contract quantity.

**5.0 Basis of Payment.** Payment for the above described work, including all material, equipment, labor and any other incidental work necessary to complete this item, will be considered completely covered by the contract unit price for Concrete Crack Filler.