**SPECIAL NOTE FOR BRIDGE DECK RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS**

**1. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway’s Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings (current editions), this Note, and the attached detail drawings. Section references are to the Standard Specifications. This work consists of the following: (1) Furnish all labor, materials, tools, and equipment, (2) Machine prep the existing slab, (3) Complete full-depth and partial depth repairs as directed by the Engineer, (4) Repair/replace damaged and corroded reinforcing bars, (5) Place new concrete overlay and epoxy-sand slurry in accordance with Section 606, (6) Complete asphalt approach pavement and (7) Any other work specified as part of this contract. All construction will be in accordance with Section 606 unless otherwise specified.

**2. MATERIALS**.

1. **Latex Concrete.** See Section 606.03.17.
2. **Class “M” Concrete.** Use either “M1” or “M2”. See Section 601.
3. **Bituminous Asphalt**. Use CL2 ASPH SURF 0.38D PG64-22.
4. **Epoxy-Sand Slurry.** See Section 606.03.10.

**3. CONSTRUCTION.**

**A. Machine Preparation of Existing Slab.** Remove concrete from existing slab to a depth of at least ¼” below the existing surface, and remove all patches completely, in accordance with the requirements of Section 606.03.03.

**B. Partial Depth Slab Repair and Latex Overlay.** Remove areas determined to be unsound by the Engineer via hydro-demolition or via handheld jackhammers weighing less than 45lbs in accordance with Section 606.02.10 D. Repair/Replace all damaged or severely corroded reinforcing bars prior to partial depth repair operation. The Department will not measure material removal and will consider this work incidental to the bid item “PARTIAL DEPTH PATCHING”. Mix and place Latex Modified Concrete Overlay in accordance with Sections 606.03.08 and 606.03.17.

**D. Asphalt Approach Pavement.** Mill each existing asphalt approach for a distance of 50’ from the bridge end. Remove the bituminous material uniformly by making an edge key, so as to provide a smooth transition to the finished bridge when a new bituminous overlay of compacted depth of approximately 1½” is added to the approaches. The grinding depth may vary depending on the condition of the existing approach and final elevation of bridge end. Dispose of all removed material away from the site.

**E. Surface Texturing.** Texture the concrete surface of the overlay in accordance with Section 609.03.10.

**F. Verifying Field Conditions.** The Contractor shall field verify all joint openings, locations, and manufacture before ordering any material. New material that is unsuitable due to variation in existing structure shall be replaced at the Contractors expense.

**G. Damage to the Structure.** The Contractor shall bear all responsibility and expense for any and all damage to the structure during the repair work even to removal and replacement of a fallen span, should the fallen span result from the Contractor’s actions.

**4. MEASUREMENT.** See Section 606 and the following:

* 1. **Latex Modified Concrete for Overlay.** The Department will measure the quantity in cubic yards using the theoretical volume as follows for each bridge:

 **000B00000N (XX’0”x XX’0”x 1.50”) = XX.0 CY**

* 1. **Latex Modified Concrete for Partial Depth Patching and variable thickness of Overlay.** The Department will measure the quantity in cubic yards by deducting the theoretical volume of bridge deck overlay (LMC) from the total volume (as indicated by the batch quantity tickets) of Concrete required to obtain the finished grade shown on the Plans or established by the Engineer.
	2. **Machine Prep of Slab.** The Department will measure the machine preparation of the existing bridge deck in square yards, which shall include all labor, equipment, and material needed to complete this work.
	3. **Steel Reinforcement.** The Department will measure any reinforcing steel necessary for the partial or full depth patch in pounds, which shall include all labor, equipment, and material needed to complete this work.
	4. **Asphalt Approach Pavement.** The Department will measure the quantity in square yards, which shall include all labor, equipment, and material needed to complete this work.

**5. PAYMENT.** See Section 606 and the following:

1. **Latex Modified Concrete for Overlay.** The Department will make payment for the Latex Modified Concrete under bid item #08534 “CONCRETE OVERLAY – LATEX” for the quantity in cubic yards complete in place.
2. **Latex Modified Concrete for Partial Depth Patching and variable thickness of Overlay.** The Department will make payment for the Partial Depth Patching under bid item #24094EC “PARTIAL DEPTH PATCHING”. Payment will be for the quantity per cubic yard complete in place.
3. **Machine Prep of Slab.** The Department will make payment for the removal of the existing overlay under bid item #08551 “MACHINE PREP OF SLAB”**.**  Payment will be for the square yard complete.
4. **Remove Existing Overlay.** The Department will make payment for the removal of the existing overlay under the bid item #08510 “REM EPOXY BIT FOREIGN OVERLAY”. Payment will be for the square yard complete.
5. **Steel Reinforcement.** The Department will make payment for steel reinforcement, if necessary, under bid item #08150 “STEEL REINFORCEMENT”. Payment will be at the unit price per pound.
6. **Asphalt Approach Pavement.** The Department will make payment for the completed and accepted quantity of this work under the bid item #03304 “BRIDGE OVERLAY APPROACH PAVEMENT”.