ITEM 609.0400nn08 - INSTALLATION OF CURB WITH RAPID HARDENING POLYMER CONCRETE.

DESCRIPTION
The work shall consist of the removal and disposal of curb and portion of adjoining concrete and its replacement with new Rapid Hardening Polymer Concrete, as indicated on the contract plans, or as ordered by the Engineer. All work shall be done at the locations indicated on the contract plans, or where ordered by the Engineer. All miscellaneous materials, not including bar reinforcement, encountered during the removal shall be removed and disposed of unless otherwise indicated on the contract plans, or ordered by the Engineer.

MATERIALS
As specified in section
721-20(RAPID HARDENING POLYMER CONCRETE)
705-06(CAULKING COMPOUND FOR STRUCTURES)
709-01(BAR REINFORCEMENT, GRADE 60).
703-02(COARSE AGGREGATE)
701-07(ANCHORING MATERIALS - CHEMICALLY CURING).
The initial setting time of the chemically curing anchoring materials for drilling and grouting of reinforcement bars shall be less than 15 minutes.

CONSTRUCTION DETAILS
Saw cut, remove and dispose the stone or concrete curb and adjoining concrete as shown in the plan. Prepare the surface to receive the new material. This portion of the work shall be as per the Section 582 of the current NYSDOT Standard specification.

Saw Cutting Equipment: Use diamond blade saws capable of making straight, 4 inch deep, saw cuts. Use saws equipped with cutting guides, blade guards, water cooling systems, dust control, and cut depth control.

Chipping Hammers: Use chipping hammers weighing no more than 30 pound (including bit and muffler) equipped with sharp spade bits. Provide the Engineer hammer specifications from the manufacturer before sawing or coring. Use a maximum air pressure of 100 PSI (measured at the compressor) to power the hammer. Supply an air pressure gauge at the compressor that allows the Engineer to easily monitor air pressure.

Maintain equipment and supplies to ensure uninterrupted operation. The Engineer may halt operations if concrete to remain in place is damaged by the hammers.

Maintain equipment and supplies to ensure uninterrupted operation.

Caulk at the corner of sidewalk and the deck slab as shown in the contract plans.

Drill and grout deformed reinforcement bars into the sidewalk and in to the deck slab as shown in the contract plans. The spacing of all of the reinforcement bars shall be as shown in the contract plans. This portion of the work shall be as per the Section 586 of the current NYSDOT Standard specification.

Place form work and pour rapid hardening Polymer Concrete as shown in the plan.
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Use rapid hardening polymer concrete appearing on the Approved List. Provide the Engineer the Manufacturer’s written instructions for mixing, bonding, placing, and curing the material. Follow the Manufacturer’s instructions, including all aspects of the Manufacturer’s Safety Data Sheets when handling rapid hardening polymer concrete and their primers.

Extend rapid hardening polymer concrete with coarse aggregate having a 1A gradation. Use a maximum aggregate extension rate of 75% of the dry component weight of the repair material. Extension aggregates must contain no moisture at the time of mixing.

Remove the formwork after the initial setting of concrete.

Any nailing or drilling of holes in to the bridge deck slab to facilitate the form work shall not be more than 3 inches deep. These holes shall be filled with methyl methacrylate based polymer concrete repair material.

METHOD OF MEASUREMENT
This work will be the number of linear feet, rounded to the nearest foot, of curb along with the adjoining concrete satisfactorily replaced and will be measured along the top front arris line of full height, transition and terminal sections.

BASIS OF PAYMENT
The unit price bid shall include the cost of labor, materials, and equipment necessary to satisfactorily complete the work, including saw cutting, preparation of the bed or surfaces, form work, caulking, dispose of any construction debris, drilling and grouting of reinforcement bars.

No additional payment will be made to the Contractor when curb, sidewalk is placed across driveway entrance and curb ramps to facilitate any forming operations and removal. No additional payment will be made for extra work required to repair damage to the adjacent pavement that occurred during any operation.

Payment at the unit bid price will be made after the work is satisfactorily completed.

Note: nn denotes serialized pay item for each structure.