

**OCTOBER 30, 2019**  
**REHABILITATION OF BRIDGE NO. 00302**  
**I-395 OVER ROUTE 14 AND MOOSUP RIVER**  
**FEDERAL AID PROJECT NO. 0395(012)**  
**STATE PROJECT NO. 0108-0186**  
**TOWN OF PLAINFIELD**

**ADDENDUM NO. 1**

**QUESTIONS AND ANSWERS**

This Addendum addresses the following questions and answers contained on the CT DOT Questions and Answers Website for Advertised Construction Projects:

Question and Answer Nos. 3, 4, 6, 8 & 9

**SPECIAL PROVISIONS**

The Contract Description on page 5 is hereby deleted and replaced with the attached Contract Description.

**REVISED SPECIAL PROVISION**

The following Special Provision is hereby deleted in its entirety and replaced with the attached like-named Special Provision:

- ITEM NO. 0511803A – BRIDGE SCUPPER WITH DOWNSPOUT

**CONTRACT ITEMS**

**REVISED CONTRACT ITEMS**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>ORIGINAL QUANTITY</u>	<u>REVISED QUANTITY</u>
0202000	EARTH EXCAVATION	1730 CY	2690 CY
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	3130 LF	6130 LF
0207000	BORROW	10 CY	150 CY
0406171	HMA S0.5	1830 TON	1720 TON
0406172	HMA S0.375	3330 TON	3550 TON
0406236	MATERIAL FOR TACK COAT	1540 GAL	1650 GAL
0821502	F- SHAPE PRECAST CONCRETE BARRIER CURB (21"X45")	470 LF	550 LF

**DELETED CONTRACT ITEM**

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>ORIGINAL QUANTITY</u>	<u>REVISED QUANTITY</u>
0821505	F- SHAPE PRECAST CONCRETE BARRIER CURB WITH DRAINAGE SLOTS (21"X45")	80 LF	0

**PLANS**

**REVISED PLANS**

The following Plan Sheets are hereby deleted and replaced with the like-numbered Plan Sheets:

02.01.A1

03.08.A1

03.09.A1

05.27.A1

06.02.A1

06.03.A1

06.04.A1

06.05.A1

06.06.A1

06.07.A1

06.08.A1

06.09.A1

06.10.A1

06.11.A1

06.12.A1

The Bid Proposal Form has been revised to reflect these changes.

The Detailed Estimate Sheets do not reflect these changes.

There will be no change in the number of calendar days due to this Addendum.

The foregoing is hereby made a part of the contract.

AUGUST 28, 2019  
FEDERAL AID PROJECT NO. 0395(012)  
STATE PROJECT NO. 108-186

REHABILITATION OF BRIDGE NO. 00302  
I-395 OVER ROUTE 14 AND MOOSUP RIVER

Town of Plainfield  
Federal Aid Project No. 0395(012)

The State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 817, 2016, as revised by the Supplemental Specifications dated July 2018 (otherwise referred to collectively as "ConnDOT Form 817") is hereby made part of this contract, as modified by the Special Provisions contained herein. Form 817 is available at the following DOT website link <http://www.ct.gov/dot/cwp/view.asp?a=3609&q=430362>. The current edition of the State of Connecticut Department of Transportation's "Construction Contract Bidding and Award Manual" ("Manual"), is hereby made part of this contract. If the provisions of this Manual conflict with provisions of other Department documents (not including statutes or regulations), the provisions of the Manual will govern. The Manual is available at the following DOT website link <http://www.ct.gov/dot/cwp/view.asp?a=2288&q=259258>. The Special Provisions relate in particular to the REHABILITATION OF BRIDGE NO. 00302 I-395 OVER ROUTE 14 AND MOOSUP RIVER in the Town of Plainfield.

## **ITEM #0511803A - BRIDGE SCUPPER WITH DOWNSPOUT**

**Description:** This work will consist of furnishing and installing scuppers, hoppers and grates, and hot dipped galvanized steel pipe downspout systems for bridge drainage as shown on the plans and in accordance with the specifications.

### **Materials:**

#### A. Scuppers:

Steel for the scupper frames, grates, and miscellaneous attachment materials including plates and angle irons shall conform to ASTM A709 or stronger, shall be hot dip galvanized in accordance with ASTM A153 and shall be manufactured in accordance with the plans. The lock down bolts shall be stainless steel conforming to AISI Type 304. Studs shall conform to the requirements of M.06.02-12. U-Bolts and nuts shall conform to ASTM A276 Type 304. The caulking shall be silicone sealant conforming to ASTM C-920 Type S, Grade NS, Class 40 or Federal Specifications TT-S-001543A (COM-NBS) Class A and TT-S-00230C (COM-NBS) Class A.

The hoppers shall be custom molded reinforced polyester chemical-resistant fiberglass as shown on the plans.

The resin shall be corrosion resistant and shall be evaluated as a laminate by test or previous service to be acceptable for the environment. The resins used shall not contain fillers except as required for viscosity control or fire retardance. Up to 5% by weight of the isotropic agent, which will not interfere with visual inspection, may be added to the resin for viscosity control. Resin may contain pigments and dyes if authorization for their use is obtained from the Department. Antimony compounds or other fire retardant agents shall be added as required for improved fire resistance. The resin shall be protected by an ultra-violet absorbing system consistent with good practice.

The reinforcing material shall be a commercial grade of glass fiber having a coupling agent which will provide a suitable bond between the glass reinforcement and the resin. The glass and resin shall be applied in proper quantities to achieve maximum strength. However, the glass fiber shall be not less than 25% by weight. The laminate shall have a minimum ultimate tensile strength of 12 ksi, a minimum flexural strength of 20 ksi, and a minimum tangent flexural modulus of elasticity of 800 ksi. The material used as reinforcing on the surface exposed to chemical attack shall be a commercial grade chemical resistant glass having a coupling agent.

The laminate shall consist of an inner surface, an interior layer, and an exterior layer or laminate body. The composition of the inner surface and interior layer are intended to achieve optimum chemical resistance. The inner surface shall be free of cracks and crazing with a smooth finish and with an average of not over 2 pits per square foot, providing the pits are less than 1/8" diameter and not over .04" deep and are covered with sufficient resin to avoid exposure of inner surface fabric. Some waviness is permissible as long as the surface is smooth and free of pits.

Between .01" and .02" of reinforced resin-rich surface shall be provided. This surface shall be reinforced with one ply of glass reinforcing matt.

The laminate shall be built to finished thickness in stages to minimize warping.

The laminate shall come to room temperature before successive plays are built up.

Barcol hardness, within 24 hours, shall be not less than the manufacturer recommends.

The color of the exterior surfaces of the hopper and the drain pipes shall match the top coat color of the steel or as ordered by the Engineer. The Contractor shall submit a color sample to the Engineer for approval. A U.V. inhibitor shall be incorporated in the epoxy resin.

The Contractor shall furnish Certified Test Reports and Materials Certificates for each batch and a Certificate of Compliance in conformance with the requirements set forth in Article 1.06.07.

Studs shall be welded to the frames in accordance with Article 5.08.03.

Steel frames and grates shall be hot-dip galvanized after fabrication in accordance with Article M.06.03.

Shop drawings for the frames and grates shall be submitted in accordance with Article 1.05.02.

All manufacturing practices shall conform to SPI standards.

Each hopper shall be shipped to the job site paper wrapped in a cardboard carton or box of other suitable material.

**B. Downspouts:**

1. Pipe: Pipe shall be Schedule 40, hot dip galvanized, welded and seamless pipe conforming to the requirements of ASTM A53 (Grade B). Pipe bends may be used to eliminate elbows. The minimum pipe bend shall be 12 times the diameter of the pipe (inside diameter of bend). Couplings may be used to join straight sections of pipe. Couplings shall conform to the requirements of ASTM A865, and shall be hot dip galvanized. Installation of piping shall conform to standard plumbing practice to ensure no leakage under operating pressures.
2. Elbows and Fittings: Elbows and fittings shall be malleable iron conforming to the requirements of ASTM A 197 (ANSI B16.3 Class 300) and shall be galvanized according to the requirements of ASTM A153. All connections shall be threaded to match the adjoining pipe.

**C. Pipe Brackets and Supports:**

1. Pipe Brackets and Shims: Steel for pipe brackets and shims shall conform to the requirements of ASTM A 709 Grade 50, and shall be galvanized according to the requirements of ASTM A123.
2. Bolts and Anchor Rods: Bolts shall conform to the requirements of ASTM A325, and shall be supplied with matching nuts and washers. Anchor rods shall conform to the requirements of ASTM A449, and shall be supplied with matching nuts and washers. All bolts, anchor rods, nuts, and washers shall be mechanically galvanized in accordance with the requirements of ASTM B695, Class 50.

**D. Adhesive Bonding Material:**

1. The adhesive bonding material shall be a resin compound specially formulated to anchor steel bars in holes drilled into concrete for the purpose of resisting tension pull-out. The Contractor shall select one of the product systems listed in Standard Specification, Subarticle M.03.01-15- Chemical Anchors.
2. A Materials Certificate shall be required in accordance with Article 1.06.07, confirming the conformance of the adhesive bonding material to the requirements set forth in the manufacturer's specification.

**E. Neoprene Coupler:**

1. Neoprene couplers shall conform to the requirements of ASTM Specification C564 or equal.

**F. Basis of Acceptance:**

1. Downspout materials will be accepted at the work site by the Engineer-In-Charge upon certification of the manufacturer that the materials used and fabrication procedure employed conform to the requirements of this specification. The Engineer may reject any downspout system which, in the opinion of the Engineer, exhibits poor quality or workmanship.

**Construction Details:**

**A. Shop Drawings:**

1. A plan and elevation with details showing all lengths, fittings, support and material designation needed to fabricate the scupper.
2. Commercial items shall be identified by manufacturer, trade name and catalog number and shall indicate sufficient details.
3. The installation of welded studs shall also be shown in accordance with the requirements of Article 5.08.03.

B. Field Testing of Downspout Systems:

Prior to the acceptance of the structure by the Department, the downspout system shall be flushed out and tested by the Contractor, to insure that it is unobstructed and does not leak. Any obstruction in the downspout system preventing the free flow of drainage shall be removed to the complete satisfaction of the Engineer.

**Method of Measurement:** This work will be measured for payment by the number of completed scuppers with attached downspouts completed and accepted.

**Basis of Payment:** This work shall be paid for at the contract unit price, per each, for "Bridge Scupper with Downspout" which price shall include the cost of furnishing all labor, materials and equipment necessary to erect the scupper hopper, frame, grate, pipe, fittings, and pipe supports. The unit price bid per each shall also include the cost of furnishing and placing pipe hangers and brackets, couplings.

<u>Pay Item</u>	<u>Pay Unit</u>
Bridge Scupper with Downspout	Each