NEW YORK STATE THRUWAY AUTHORITY
DEPARTMENT OF ENGINEERING

ALBANY, NY
SEPTEMBER 19, 2024

AMENDMENT NO. 5
TO

CONTRACT TANE 24-19
D214945
NEW ENGLAND THRUWAY
(I-95) RESURFACING FROM
MILEPOST NE 4.0 TO NE 8.8 INCLUDING
THE REHABILITATION OF TWELVE BRIDGES
IN THE NEW YORK DIVISION
OF THE NEW YORK STATE THRUWAY
IN WESTCHESTER COUNTY

IN THE LETTING OF
SEPTEMBER 25, 2024

NOTE: This amendment shall be attached to and become a part of the Proposal for Contract **TANE 24-19.**

NOTICE

For Electronic Bidders, the Project's amended EBSX file will automatically account for any necessary item changes (deletions, changes in quantities, or additions) that this Amendment may describe as being required regarding the project's estimated cost. Instructions to make physical changes to the Project Proposal's bid sheets are intended for "paper" Bidders who choose to submit bids via paper.

Questions and Answers for this project are available from the Authority's website, specifically at: http://www.thruway.ny.gov/netdata/contractors/documents/d214945_tane24-19_questions-and-answers-09-19-2024.pdf. This document may be updated periodically without formal issuance of an Amendment. Prospective bidders are advised to revisit this link weekly and before proposals are due, for any possible additional questions and answers information.

Additional Supplemental Information for this project is now available from the Authority's website, specifically at: http://www.thruway.ny.gov/netdata/contractors/documents/d214945_tane24-19_supplemental-information-09-19-2024.zip

1. Updated quantity work ups are now available and are being provided as additional supplemental information.
2. Record plans TANE 99-40 and TANE 99-87 are now available and are being provided as reference for lighting replacement work to be done at Larchmont Station Plaza.

PROPOSAL

1. On the Proposal cover page, **CHANGE** the NYSDOT Standard Specification adoption date from May 1, 2024, to September 1, 2024.

2. **CHANGE** the following Items**:**

Contract Proposal Page	Item No.	Description	Unit	Initial Estimated Quantity	Revised Estimated Quantity
269	203.02	Unclassified Excavation and Disposal	CY	3,009	13,481
269	203.03	Embankment in Place	CY	3,839	992

3. **ADD** the following Items**:**

Contract Proposal Page	Item No.	Description	Unit	Estimated Quantity
288F-A5	670.0104	Foundation for Light Standards, 4 feet long	EA	2
288F-A5	670.15091810	Type P6 Aluminum Light Standard 23 LF – 29 ½ LF Pole, 6 LF Single Davit Arm	EA	2

The Bidder must **RETURN THE ATTACHED PAGE 288F-A5** with its bid for this Contract.

4. **ADD** the attached Contract Proposal pages **135F-A5 through 135L-A5**. The special specification for Item 670.15091810 added above is now available.

The Bidder **MUST** complete **Page 303** of the Proposal acknowledging receipt of this amendment. If the Bidder fails to complete the "Amendment Acknowledgement" sheet, his bid could be declared informal thereby delaying award of the contract.

PLEASE BE GOVERNED ACCORDINGLY WHEN SUBMITTING BIDS.

Brent E. Howard, P.E.
Chief Engineer

ITEM 670.15091810 - TYPE P6 ALUMINUM LIGHT STANDARD 23 ft – 29 ½ ft POLE 6 ft SINGLE DAVIT ARM
ITEM 670.15094510 - TYPE P ALUMINUM LIGHT STANDARD 23 ft – 29 ½ ft POLE 14 ¾ ft SINGLE DAVIT ARM
ITEM 670.15111810 - TYPE S6 ALUMINUM LIGHT STANDARD 29 ½ ft – 36 ft POLE 6 ft SINGLE DAVIT ARM
ITEM 670.15114510 - TYPE S ALUMINUM LIGHT STANDARD 29 ½ ft–36 ft POLE 14¾ ft SINGLE DAVIT ARM
ITEM 670.15131810 - TYPE R6 ALUMINUM LIGHT STANDARD 36 ft – 42 ½ ft POLE 6 ft SINGLE DAVIT ARM
ITEM 670.15134510 - TYPE R ALUMINUM LIGHT STANDARD 36 ft – 42 ½ ft POLE 14 ¾ ft SINGLE DAVIT ARM
ITEM 670.15151810 - TYPE T6 ALUMINUM LIGHT STANDARD 42 ½ ft – 50 ft POLE 6 ft SINGLE DAVIT ARM
ITEM 670.15154510 - TYPE T ALUMINUM LIGHT STANDARD 42 ½ ft – 50 ft POLE 14 ¾ ft SINGLE DAVIT ARM
ITEM 670.15174510 - TYPE V ALUMINUM LIGHT STANDARD 50 ft – 55 ¾ ft POLE 14 ¾ ft SINGLE DAVIT ARM
ITEM 670.16114510 - TYPE ST ALUMINUM LIGHT STANDARD 29 ½ ft – 36 ft POLE 14 ¾ ft TWIN DAVIT ARM
ITEM 670.16151810 - TYPE J ALUMINUM LIGHT STANDARD 42 ½ ft – 50 ft POLE 6 ft TWIN DAVIT ARM
ITEM 670.16134510 - TYPE RT ALUMINUM LIGHT STANDARD 36 ft – 42 ½ ft POLE 14 ¾ ft TWIN DAVIT ARM
ITEM 670.16154510 - TYPE TT ALUMINUM LIGHT STANDARD 42 ½ ft – 50 ft POLE 14 ¾ ft TWIN DAVIT ARM

DESCRIPTION

Under these items the Contractor shall furnish and install aluminum light standards (lampposts) of the types and at the indicated locations shown on the drawings and in accordance with the plans, specifications and orders of the Engineer.

MATERIALS

1. General - All elements of the light standard shall meet the minimum standards of the American Association of State Highway and Transportation Officials as stated in "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" (Referred to herein as AASHTO Spec.)

   Dimensions of the various components shown on the drawings may exceed those required by the AASHTO specifications in order to provide uniform sizes on a given project.

   Unless otherwise detailed in the plans and specifications, all components of the light standard shall be sized to meet the AASHTO specifications for the pole heights, arm length, wind velocity,

ITEM 670.XXXX0010-ALUMINUM LIGHT STANDARDS(Continued)

wind gust, luminaire weight and luminaire projected area shown on the drawings or herein.

2. Shaft - The shaft of the light standard shall be a one piece seamless round tapered tube of 6063 wrought aluminum alloy as specified by the Aluminum Association. Shaft shall be formed by cold working process. The shaft shall be free of longitudinal welds and be of sufficient diameter and thickness to withstand the design loads listed on the drawings.

   The shaft shall be tapered uniformly except at its extremities where constant uniform diameters are required for joining or overlapping connections.

   The shaft shall be welded to an anchor base which shall conform to subsection 723-10. After welding the shaft shall be heat treated to T-6 temper.

   The top of the shaft shall terminate in a tenon and be equipped with a friction fit outer sleeve to produce a flush joint with the arm.

   The shaft shall be furnished together with other components of the light standard in the same way which shall be hereinafter specified.

3. Breakaway Transformer Base (Aluminum) - Transformer base shall conform to subsection 723-15.01 (except that it shall be finished as hereinafter specified).

   The transformer base supplied shall be shown on the Approved List as required by subsection 723-15.01. In addition, the Contractor shall submit three copies of the Manufacturer's drawings of the transformer base to be used to the Engineer at least 30 calendar days prior to the initial installation of this item. The Engineer will retain one copy and forward two copies to the Materials Bureau for verification of acceptability. The Engineer shall inspect the transformer bases supplied to ensure that they conform to the approved drawings.

4. Davit Arms - Davit arms shall be constructed of materials and methods specified for the shaft and as dimensioned on the drawings. Davits shall be bent to a radius and project upwards at an angle shown on the drawings.

   The davit arm shall be secured to the shaft in a flush connection with two ½ inch stainless steel bolts, nuts and lock washers. Where twin davit arms are required a twin flush connector assembly shall be provided secured with two ½ inch stainless steel bolts.

5. Davit Arm to Luminaire Connecting Tenon - Davit arms shall terminate in a cast or fabricated flush tenon as shown on the drawings or as approved by the Engineer. The flush tenon shall be secured to the davit arm by ½ inch stainless steel bolts.

6. Miscellaneous

   a. Identification Tags and Reflector Strips

      All lettering, numbering and background on the tags shall be of pressure-sensitive

reflective sheeting. Each letter or digit shall be 3 inches high. The tag for each letter or digit shall be 4 inches x 4 inches. The entire tag shall consist of a clear background and white reflective letter. Reflective strips shall be placed on the transformer base prior to installing the transformer base. Reflective materials and their installation shall be as specified in Section 730-05, Materials Designation 730-05.01. Identification tags and reflector strips shall be located as shown on the drawings.

b. Anchor Bolts shall conform to subsection 723-60.

c. Cable from transformer base to luminaire shall be type USE copper.

d. Fused Connector shall be fabricated from a molded rubber receptacle housing, molded rubber plug housing and metal fuse holder fittings. The design shall be such that the assembled connector is waterproof and suitable for direct burial. With the fuse installed, the fuse shall remain in the plug housing (load side) when disconnecting. Fuses shall be the size indicated on the drawings.

e. Grounding - Provide grounding of the transformer base, as provided by subsection 723-15.01.

f. Miscellaneous Hardware - All nuts, bolts and washers used in the fabrication of the pole shall be Grade 18-8 stainless steel, except for anchorage hardware.

g. Welding - All aluminum welding on light standards shall be performed in the shop, using the inert metal-arc welding process. Filler metal shall conform to the A.W.S. specification A5.10

h. Shipping - Shafts and arms shall be tire-wrapped with a heavy water resistant paper, for protection during shipment and installation.

7. Finishes

a. Aluminum light standards shall be finished in a Urethane or Acrylic Urethane Enamel Coating system, in a satin brown or satin non-metallic medium bronze color as approved by the Engineer.

Aluminum light standards, including transformer and shoe bases, shall be coated with a Urethane or Acrylic Urethane Enamel Coating system generally described as the manufacturers premium grade coating system for transportation industry applications, consisting of but not limited to the following coordinated elements all in accordance with the manufacturer's recommendations:

Mechanical Metal Surface Preparation
Solvent Cleaner
Wash Primer

ITEM 670.XXXX0010-ALUMINUM LIGHT STANDARDS(Continued)

Intermediate Primer
Top Coat of Urethane or Acrylic Urethane Enamel

The intent is to obtain a Urethane or Acrylic Urethane Enamel coating and substrata system conforming to the highest quality available for application in the transportation industry equal to those manufactured by Du Pont, PPG Industries, and Sherwin Williams.

b. Mechanical surface preparation shall meet the requirements of Steel Structures Painting Council Surface Preparation No. 7 (SSPC-SP7).

c. Solvent Cleaning shall be performed in accordance with the requirements of SSPC-SP1.

d. Wash primer shall be specifically as recommended by the paint manufacturers for aluminum metal and shall be chemically formulated to provide maximum bond between the metal and the coating system. Wash primer shall be applied in accordance with the manufacturer's instruction.

e. Intermediate Primer shall be an integral part of the manufacturer's coating system and shall be a two part epoxy enamel intermediate primer sprayed to a dry film thickness of 0.002 inch.

f. Finish Color Coat shall have a dry film thickness of 0.002 inch. It shall be a Urethane or Acrylic Urethane Enamel consisting of a pigmented enamel plus hardener. Accelerators may be added in accordance with the manufacturer's instructions to speed drying time to customary performance as later stated. Levelers may also be added to eliminate fish eyes all in accordance with manufacturer's instructions.

g. Color - Color shall be a satin non-metallic medium bronze or satin brown. Prior to production finishing, the lamp post manufacturer shall submit through the Contractor, for the approval of the EIC, samples of the allowable color and range of the finished material. The color and range samples shall be established from production material specified herein. The EIC shall approve samples of the lightest and darkest shades of the selected color that will be acceptable. Visual comparison of production work shall be made by the EIC. Instruments used for visual comparison shall be agreed upon by the Contractor and EIC.

h. Minor imperfections in the color coat caused by shipping and handling shall be touched up in the field utilizing a sealer primer and top coat as recommended by the manufacturer of the coating system.

i. Painting, except as specified herein, shall conform to Section 740 Painting Procedures.

8. Inspection:

The Contractor shall provide for adequate inspection by the coating manufacturer to insure that the applied coating meets the minimum requirements as required by the coating manufacturer.

Test reports shall be made of all inspections and shall include:

a. Date when tests were performed and date of issue of report.

b. Identification of alloy and finish system tested and manufacturer.

c. Copy of drawings submitted showing exposed surfaces.

d. Test results.

e. Statement indicating that finish system tested passed all tests or failed one or more.

f. In case of failure, which test(s) and description of failure(s).

g. Statement that all tests were conducted in accordance with this specification.

h. A random sample of finished work (3/4 inch cut plug) shall be selected from each lot (no less than one sample in 50 lampposts) and tested by an approved testing laboratory in a manner approved by the coating manufacturer and the EIC in order that the paint manufacturer can certify that the coating system has been applied in accordance with its recommendations.

i. The coating manufacturer shall provide a factory representative who shall furnish the EIC with all factory invoices and also shall examine surface preparation, observe application methods and record wet and dry film thickness of random samples in each batch. Inspection reports shall be in writing as required herein.

j. After an initial instruction period by the representative of the coating manufacturer in the presence of the EIC and representatives of the lighting standard manufacturer, inspections shall be intermittent.

9. Alternate Finish for Aluminum Light Standard:

a. As an alternate to the finish for aluminum light standards specified in paragraph 7 for this item, an architectural grade anodic coating system may be provided. Transformer bases, and shoe bases shall, in addition, be coated with a matching coating system as specified in paragraph 7.

b. Aluminum light standards shall be coated with an architectural grade anodic finish in a medium dark bronze color as approved by the Engineer. The anodic finish shall consist of, but not be limited to, the following coordinated elements all in accordance with the Aluminum Association Incorporated Bulletin 46 "Standard for Anodized Architectural Aluminum":

Mechanical pretreatment

ITEM 670.XXXX0010-ALUMINUM LIGHT STANDARDS(Continued)

Chemical pretreatment
Anodizing finish
Rinsing
Sealing

c. The mechanical pretreatment shall be a coarse satin, directional textured finish, polished with a wheel or belt with aluminum oxide grit of 80 to 100 size, with a peripheral wheel speed of 100 ft/s. This mechanical pretreatment is designated by the Aluminum Association as "M-33."

d. The chemical pretreatment shall be medium matte etched finish accomplished with a sodium hydroxide solution of 4-6 oz/gal used at 120-150 degree F for 5 to 10 minutes. This chemical pretreatment is designated by the Aluminum Association as "C-22".

e. An anodic coating of 0.0007 inch thickness (designated by the Aluminum association Architectural Class 1) shall be applied to the aluminum lighting standard. The finish process may be either a coating which has an integral color, designated by the Aluminum Association as finish A-42), or the finish process may be a coating whereby the desired color finish is achieved by application of the anodic coating which is followed by an electrolytic deposition of inorganic pigment in the coating (designated by the Aluminum Association as finish A-44). The anodic treatment process shall consist of immersion in an electrolyte consisting of 15∀ sulfuric acid by weight and a temperature of 70∀ F, with a constant direct current density of 1.3 amperes per square 16 inch of surface being anodized. Immersion shall be for 60 minutes in an electrolyte which has been adequately agitated throughout the tank and especially at the work surfaces being anodized. The coating shall be at least 0.0007 inch thick and have a minimum coating weight of 0.001oz/in^2 and a minimum apparent density of (2.32 g/mm^3)1341oz/in^3.

f. The anodic coating shall be rinsed free of electrolyte. Two cold water rinses in clean flowing water shall be applied for at least two minutes, special attention being directed toward pockets or recesses.

g. The finish shall be sealed for at least twenty-five minutes in distilled or deionized water having pH of 5.5-7.0 at temperature of 206-212 F. Deionized water shall be free of traces of organic matter such as residuals form ion exchange resins.

h. The coating shall be uniform in appearance and free from powdery areas based on visual inspection. The EIC, prior to fabrication, will approve samples of the lightest and darkest shades of the selected color, that will be acceptable. Visual comparison of the producing work will be made by the EIC.

i. Particular care shall be exercised during the installation and construction period to protect the anodic finish from handprints, mortar stain, scratches and other imperfections. Imperfections resulting from any source will require refinishing as directed by the EIC.

j. Minor mismatches of color at welds or castings shall be touched up by the finisher.

Special care shall be taken to pretreat welds and castings so that anodic process does not inhibit bonding coating required by coating procedures described in paragraph 7 above.

10. Inspection of Alternate Finish

Provisions of 8. Inspection above shall apply except that 8.h, 8.i and 8.j shall not apply and the following provisions shall govern.

a. The anodic coating shall be tested to conform with minimum requirements for thickness, weight and apparent density. Thickness shall be determined by ASTM method B 137 (stripping of coating in phosphoric acid solution). The apparent density (oz per cubic inch) shall be the weight of the sealed anodic coating expressed in oz per square inch divided by the thickness of the anodic coating expressed in microns measured by metallographic techniques using a microscope (ASTM B487).

b. The manufacturer shall furnish one sample or test coupon from each rack load of anodized components for the dye stain (ASTM B 136) and coating thickness (ASTM B244) tests and at least one sample or coupon from each production shift for coating weight (ASTM B 137) and apparent density determination.

c. The manufacturer shall in accordance with 8.a-8.g submit test results supplied by a testing laboratory approved by the Engineer.

d. The manufacturer shall have all bending or forming procedures to be executed, after the anodized coating is applied, reviewed by the finishing contractor and testing laboratory and secure a certification signed by the manufacturer, finisher and testing laboratory that no post-finishing bending or forming process has breached the integrity of the finish. A random sample of the most stressed bend shall be submitted to the testing laboratory in order to aid in this determination.

e. Lamppost shaft and davit arm shall require the manufacturer's certification that they meet the requirements of this specification.

CONSTRUCTION DETAILS

The installation shall conform to the requirements of subsections 670-3.01, 3.02, 3.06, 3.14, 3.15, 3.16 and 3.17. Identification tags shall be mounted 24 inches above the ground and facing traffic.

METHOD OF MEASUREMENT

Subsection 670-4.02 shall apply.

BASIS OF PAYMENT

The unit price bid for each lamppost shall include the cost of the transformer base, base-shoe, shaft, davit arm, tenons, identification tags, anchor bolts set in the foundation, nuts, washers, cable from transformer base to luminaire, fuse, fused connectors, splicing of wire in the transformer base, inspection, testing, and all labor, equipment and other materials necessary to complete the work.

Proposal Schedule of Items

Proposal ID: D214945 **Project(s):** N72669

Contractor: _____

SECTION:

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID / Description	Approximate Quantity and Units	Unit Price Dollars	Unit Price Cents	Bid Amount Dollars	Bid Amount Cents
0800	670.0104 FOUNDATION FOR LIGHT STANDARDS, 4 FEET LONG	2.000 EACH	_____	_____	_____	_____
0802	670.15091810 TYPE P6 ALUMINUM LIGHT STANDARD 23 FT - 29.5 FT POLE, 6 FT SINGLE DAVIT ARM	2.000 EACH	_____	_____	_____	_____
	Section:		**Total:**		_____	_____