Addendum No. 2
to Contract Documents

Project	Pump Station Upgrade Program Walden Woods, Jefferson Valley and Jefferson Park	Project No.	8618742
Owner	Town of Yorktown, New York		
Contract No.	1 – General 2 – Electrical	Date	February 6, 2018

To All Contractors:

Contractors submitting proposals for the above-named project shall take note of the following changes, additions, deletions, clarifications, etc., in the Contract Documents, which shall become a part of and have precedence over anything contrarily shown or described in the Contract Documents, and all such shall be taken into consideration and be included in the Contractor's bid proposal.

(See attached pages.)

Robert Butterworth, P.E.

Item No. 1:

Section 01010, Summary of Work. **DELETE** Article 1.08.

Item No. 2:

Section 07213, Batt and Blanket Insulation. In paragraph 1.05 C, **DELETE** "AIS" and **REPLACE** with "AISI.":

Item No. 3:

Section 14602, Hoists and Cranes. **DELETE** existing Section 14602 and **REPLACE** with attached Section 14602 (Attachment No. 1).

Item No. 4:

Section 16055, Electrical Work. **ADD** new Article 2.03 as follows:

"2.03 CONDUIT TYPES

A. Conduit types shall be the following:

1. Unclassified Areas - Rigid galvanized steel.
2. Wet and Hazardous Areas - PVC-coated rigid galvanized steel.
3. Ductbanks - Schedule 40 PVC."

Item No. 5:

Section 16161, Control Panels and Enclosures. **ADD** new Article 2.02 as follows:

"2.02 NEMA ENCLOSURES

A. NEMA enclosure ratings shall be the following:

1. NEMA 4X Stainless Steel – Wet areas and outdoor areas.
2. NEMA 12 - Unclassified areas.
3. NEMA 7 – Hazardous areas (NEMA 4X if circuits are intrinsically safe)."

Item No. 6:

Contract Drawings, Sheet E006. **ADD** 'Wet Area' label inside Pump Station Building Lower Level Plan, and 'Unclassified Area' label inside Pump Station Building Upper Level Plan, and 'Class I, Division 1 Hazardous Area' label inside the Pump Station Wet Well.

Item No. 7:

Contract Drawings, Sheet E007. **REPLACE** 'Conduit and Wire by HVAC' with '3/4" Cw/2#12's, 1#12G', multiple places.

Item No. 8:

Contract Drawings, Sheet D002. **DELETE** "DEMOLISH UNDERGROUND TANK" and "CUT AND CAP EXISTING LINE AND ABANDON IN PLACE."

Item No. 9:

Contractor Pre-Bid Questions and Responses. See Attachment No. 2, which includes questions and responses received as of January 30, 2018 at 5:00 pm.

SECTION 14602

HOISTS AND CRANES

PART 1 GENERAL

1.01. DESCRIPTION OF WORK

A. Contractor shall furnish and install an electric hoist and davit crane at each of the Walden Woods and Jefferson Park Pump Stations; and a portable gantry crane and electric hoist at the Jefferson Valley Pump Station; and related equipment.

B. Design requirements.

C. Regulatory codes and requirements.

1.02. RELATED SECTIONS

A. Section 01640 - EQUIPMENT-GENERAL: Performance affidavits, operating instructions, time of delivery, standardization, equipment tests, and initial operation.

B. Section 05500 - MISCELLANEOUS FABRICATIONS

C. Section 09900 - PAINTING

D. Section 15170 - MOTORS

1.03. SUBMITTALS

A. Submit single-page catalog cuts clearly indicating items to be furnished, including maintenance and electrical requirements.

B. The shop drawings shall show the exact layout with all suspension points, braces, cross section with clearance indication, hook height, lift range, trolley travel range, hoist and trolley type, travel and lift speeds, horsepower and voltage of all motors, type and mounting details of electrification.

1. The Drawings shall be prepared specifically for this project.

2. Provide manufacturer's data for galvanizing and paint systems proposed.

3. Provide catalog cut for each type of gantry crane or davit crane.

1.04. REFERENCES

A. ANSI C1 National Electric Code.

B. ANSI B30.11, Monorail Systems and Underhung Cranes, and ANSI B30.16, Safety Standard for Overhead Hoists.

C. American Institute of Steel Construction (AISC).

D. American Welding Society (AWS).

PART 2 PRODUCTS

2.01. MANUFACTURERS

A. Davit crane shall be as manufactured by Thern, Inc., or equal.

B. Gantry crane equipment cranes shall be Porta-Gantry Model PGSS00500S-2500 as manufactured by Thern, or equal.

2.02. EQUIPMENT DESIGN AND FABRICATION

A. Capacity

1. The capacity of each hoist shall be permanently marked in a conspicuous manner on the hoist, crane, and monorail track.

2. The hoists shall lift their rated capacities with a smooth and continuous operation without speed changes or vibration throughout the entire lifting height.

B. Materials

1. Electric Hoists

a. Hoist for the Walden Woods and Jefferson Park Pump Stations shall be of the cable type. Hoist for the Jefferson Valley Pump Station shall be of the chain type.

Electric hoist(s) shall be wire-rope type, rigged to provide a true vertical lift (double reeved), equipped with a mechanical load brake capable of supporting the full load and shall be easily accessible for external adjustment by removing cover plates.

b. Shafts of the motor, drum, and drum pinion shall run on grease-lubricated ball or roller bearings, sealed for corrosion resistance and outdoor usage and storage. Provide waterproof covers.

c. The mechanical load brake, the gear train, and bearings shall be oil bath lubricated.

d. The drum shall have machine cut grooves and guarded flanges and shall have the capacity to take the entire run of cable in one layer without overlapping.

e. The drum mechanism shall have an upper and lower limit switch to prevent reverse reeving.

f. The cable shall be flexible, high-strength plow steel. The load chain shall be stainless steel for corrosion resistance and have a load safety factor of at least 5 to 1.

g. The chain hoist shall be equipped with a chain collector basket.

h. The load block shall be of rugged construction containing a ball bearing sheave and a high-grade forged steel swivel hook with anti-friction bearings.

i. The hoist shall be hook-on, low headroom type.

j. The hoist motor shall be a single-speed motor. Lift speed 4/12 fpm.

k. The hoist and accessories shall be abrasive blasted and epoxy painted for corrosion resistance.

2. Trolleys

a. Trolleys shall be integral to the hoist mechanism for manual hoists and provide for hook mounting for electric hoists.

b. Trolleys shall have four or more wheels and have sides extending beyond the wheel flanges to provide bumper protection.

c. Wheels shall have machined treads, surface hardened to Brinell hardness of 400, and set at the proper angle to bear the load evenly.

d. Wheels shall be provided with lifetime lubricated ball or roller bearings.

e. Trolleys shall be compatible with the track provided by the Contractor.

f. Trolleys shall be manually propelled. Each trolley shall have a round eyebolt for suspending the hoist.

g. The trolley for the gantry crane shall be manually propelled.

h. Trolley(s) shall be abrasive blasted and epoxy painted for corrosion protection.

3. End Trucks

a. End trucks shall have four or more wheels and have sides extending beyond the wheel flanges to provide bumper protection.

b. Wheels shall have machined treads, surface hardened to Brinell hardness of 400, and set at the proper angle to bear the load evenly.

c. Wheels shall be provided with lifetime lubricated ball or roller bearings.

d. End trucks shall be compatible with the bridge crane rail as provided by the crane supplier.

e. Each end truck shall be motorized, gear driven, and powered by a variable speed electric motor and shall be provided with a retarding brake.

f. End trucks shall be abrasive blasted and epoxy painted for corrosion protection.

4. Controls

a. All motorized hoisting equipment shall be floor controlled by a pushbutton pendant which is fully rubber encased and shall hang from the hoist or crane on a separate deluxe pendant cable gripper long enough to reach within 3 feet of the operating floor.

b. The controls shall have labeled, color-coded pushbuttons to control all hoist and crane functions.

c. The controls shall be fully magnetic with overload protection and be made from tough indestructible materials rated NEMA 4X for outdoor usage.

5. Electrification - Unless otherwise indicated on the Drawings or in the schedule, the power supply shall be 120 volts, single phase, cord and plug. Cord shall be a minimum of 20 feet.

2.03. DAVIT CRANES

A. Self-supporting portable unit of tubular construction with a top-mounted base as indicated. Unit shall be all stainless steel construction using stainless steel fasteners and accessories.

B. Crane shall provide 360-degree rotation with a sleeve bearing in the base.

C. Cranes of 1,000-lb. capacity and greater shall have adjustable telescoping booms with height adjustment using a ratchet-style screw jack.

D. Provide Thern, Inc. davit crane Model 5124M2 for up to 2,000-lb. capacity or equal for the Walden Woods Pump Station.

E. Provide Thern, Inc. davit crane Model 5124M2 for up to 2,000-lb. capacity or equal for the Jefferson Park Pump Station.

F. Wire rope shall be 304 stainless steel with swivel hook. Provide 1/4-inch diameter for up to 500-lb. capacity, 5/16-inch diameter for up to 1,000-lb. capacity; and 3/8-inch diameter for up to 2,000-lb. capacity.

G. Contractor shall coordinate supply of all davit cranes on the project to be from the same manufacturer.

PART 3 EXECUTION

3.01. PAINTING

A. All steel components and accessories shall be abrasive blasted and epoxy painted for an exterior/corrosive environment.

B. After complete installation and preliminary testing, provide touch-up or repainting of all components.

3.02. EQUIPMENT INSTALLATION

A. Field Measurements and Dimensions - All measurements and dimensions shall be based on verified field conditions. Verification shall include examination of adjoining work.

B. Erection - The equipment shall be erected by the Contractor in accordance with the instructions of the manufacturer.

1. In addition to the general requirements of Section 01640, Equipment-General, and the foregoing paragraphs; equipment shall be shipped, assembled and constructed as follows:

a. All bolts shall be furnished and installed by the Contractor and shall be of ample size and strength for the purpose intended.

b. All parts of the equipment shall be amply proportioned for all stresses that may occur during fabrication, erection and intermittent or continuous operation.

c. The equipment shall be assembled by the manufacturer insofar as is practical and shipped in units which will minimize erection costs.

3.03. INSTALLATION AND TESTING

A. Equipment shall be shop assembled and shop tested to the fullest extent possible prior to shipment to the job site.

B. Installation shall include all necessary oil and grease for initial operation.

C. Prior to turning the installation over to the Owner, the entire installation shall be tested for the following conditions:

1. No-load operation in all moving stages for a period of 30 minutes.

2. Operate and load test at 125 percent of field rated load capacity for at least 20 minutes, demonstrating starting hoisting, lowering, travel speed and lifting speeds.

3. Suspend the rated load from the hook, held solely by the hoist brake, for a period of 10 minutes without change of position.

4. The equipment shall demonstrate compliance with pertinent codes and specifications, that it has been properly erected and adjusted, and that it is ready for service.

5. Should any defects develop during the tests, they shall be corrected at the Contractor's expense.

D. Tests, trials and initial operation shall be performed as set forth in Section 01640 Equipment-General.

3.04. SERVICES OF MANUFACTURER'S REPRESENTATIVE

A. Manufacturer's representative services shall be provided in accordance with Section 01640 and as specified herein.

1. To assist with initial installation and startup, the equipment manufacturer shall be on site to provide assistance to the Contractor.

2. After initial startup and during the first year of operation, a representative of the manufacturer shall make one visit to the plant for not less than eight hours.

3. The purpose of this visit shall be to review equipment operation, assist the operators and inspect the equipment installation.

4. Should the system or any of its components fail to operate satisfactorily for any reason other than proven Owner negligence, the Contractor shall make such repairs, replacements, or other modifications as required to render the system satisfactory.

3.05. SCHEDULE OF HOISTING EQUIPMENT

A. All equipment furnished under this section shall be in accordance with the equipment schedule below:

1. Movable Gantry Crane

Location	Capacity (tons)	Top of Track (feet)	Beam Length (feet)	Hoist Speed (ft/min)	Motor Size (HP)	Remarks
Jefferson Valley	1/2	15'-6"	15'-0"	3'	0.5	Electric hoist, manual trolley, portable gantry

2. Davit Crane

Location	Quantity	Capacity (Tons)	Lift (feet)	Remarks
Walden Woods	1	1	35	Electric hoist
Jefferson Park	1	1/2	35	Electric hoist

END OF SECTION

Pre-Bid Questions

Project	Pump Station Upgrade Program Walden Woods, Jefferson Valley and Jefferson Park Town of Yorktown, New York	From	Ray Schofield, PE
Subject	Contractor Questions as of January 30, 2018 5:00 p.m.	Telephone	315.679.5800
Date	February 6, 2018	Job No.	8618742

CONTRACTOR QUESTIONS AND RESPONSES

1. Does this job have any MBE/WBE requirements?

   Response: No.

2. Does this job have any AIS American Iron & Steel requirements?

   Response: No

3. Due to long lead times of equipment, we are hereby requesting an extension of the contract duration.

   Response: Without detailed information on lead times and equipment, a determination regarding increasing contract duration cannot be made.

4. Spec 01010 Summary Of Work, includes section 1.08 Contract No. 3 HVAC. Please confirm the HVAC work is now part of the GC contract.

   Response: HVAC is included under GC Contract

5. Spec 14602 Hoists & Chains does not provide information on the hoist for the Jefferson Park location.

   Response: See Addendum No. 2, Attachment No. 1.

6. Spec 01540 Temporary Pumping and 02769 Bypass Pumping. Addendum 1 on the first bid provided the average flow for the Walden Woods and Jefferson Valley sites. What is the average flow rate for the Jefferson Park site?

   Response: Walden Woods - Average 60 gpm, peak 111 gpm
   Jefferson Park – Average 20 gpm, peak 45 gpm
   Jefferson Valley - Average 450 gpm, peak 1,100 gpm.

7. Is the fuel tank at the Jefferson Valley site being demolished by the General Contractor?

   Response: No, demolition of the underground tank has been removed from the contract. Please see Item No. 8 in Addendum No. 2.

8. Is Contract 1 General required to perform ant [any] excavation/backfill or concrete encasement for Contract 3 Electric?

   Response: Excavation and concrete associated with electrical installation is the responsibility of the Electrical Contractor.

9. Is the yard hydrant at the Jefferson Valley site being demolished or relocated?

   Response: The yard hydrant is to be relocated. Refer to Drawing JV-D002.

10. Ref: Drawing JV-M004, Upper Plan. Is the 1st RPZ Backflow Preventer, shown by the sink, new – or is this an existing backflow preventer that gets relocated?

    Response: Backflow preventer shown on Sheet 86-18742-JV-M004, Upper Plan View shall be new.

11. The demolition drawings do not show removal of the existing roof at the Jefferson Valley Pump Station. Does the existing roof at the Jefferson Valley Pump Station get removed down to the existing plywood and new shingles, roof felt, fascia and soffit? Would replacement of the existing plywood be addressed, if needed, with the cost paid thru the allowance? Please clarify the scope of work for the roof.

    Response: The existing roof shall be removed down to the existing plywood and the new roof installed in accordance with Section 07311, and with reference to the Note on Drawing JV-A003, if plywood is needed and approved, payment would be covered under Item No. F-1, General Construction–Allowance.

12. Does the generator inside the Jefferson Valley pump station get demolished by the GC contract?

    Response: Electrical Contract is responsible for demolition of generator inside the Jefferson Valley Pump Station.

13. Will water to leak test the new wet wells be provide[d] at no cost by the owner?

    Response: Cost for the leak test shall be included in the Lump Sum bid price. Refer to Section 03481, paragraph 3.04 B.

14. Is the existing wet well, at the Jefferson Valley Pump Station, water tight?

    Response: The Owner has not observed water leakage of the existing wet well.

15. Are any waterproofing admixtures, such as Xypex, required for the wet well extension at the Jefferson Valley Pump Station?

    Response: Waterproofing admixtures are not specified. Please refer to Section 03481, Article 2.07, and Section 09900, for lining and paint systems requirements.

16. What are the electrical classifications of the Jefferson Valley Pump Station's upper (El. 412.12') & lower (El. 482.70') levels?

    Response: Upper = Unclassified, Lower = Wet Area.

17. Will the fans & electric heaters listed in the equipment schedule on drawing JV-H001 be in conformance with the electrical classification for their locations?

    Response: Yes, locations are rated as wet area or unclassified area.

18. Spec 15985 HVAC Controls and Sequence of Operation, 2.01 Damper Operators, D states that damper operators shall be enclosed in corrosion resistant enclosures meeting the NEMA ratings noted in these specifications and as noted on the Contract drawings. I did not see the NEMA ratings in the specifications or noted on the drawings.

    Response: Corrosion-resistant enclosures shall be NEMA 4X.

19. Drawing JV-E007 detail Building Fan Schedule (F-1) shows the thermostat wiring & conduit by the HVAC contractor. Is the thermostat conduit & wire the only conduit & wiring in the GC contract? Can this conduit & wiring be moved to Contract 2 – Electrical?

    Response: Addenda will be revised to show this conduit and wire by Contract No. 2.

20. Spec 11320 Dry Pit Submersible Horizontal Centrifugal Pumps includes Section 2.03 Guide Rail/Bracket. Does 2.03 Guide Rail/Bracket apply to this project?

    Response: Guide rail/bracket is not required for Jefferson Valley Pump Station dry pit submersible pumps.

21. In addition to all new piping, all existing interior piping to remain in buildings in which work is being performed shall be repainted and relabeled in accordance with the provisions listed herein. Has the paint on the existing piping been tested for lead?

    Response: Please refer to the Limited Lead Inspection Report performed by EMC, Inc., located in Exhibit E of the Contract Specifications.

22. Reference Drawing JV-A003 for the Jefferson Valley Pump Station. Are we required to paint the walls and ceiling of the building lower level as well as the upper level? Also please confirm the floors do not get painted.

    Response: The note "PAINT SYSTEM C-3 AS SPECIFIED IN SECTION 09900; TYPICAL ALL INTERIOR WALLS AND CONCRETE CEILING" on Drawing JV-A003 is to be interpreted to include the walls and ceiling of the building lower level in addition to the walls of the upper level.

23. Are the new aluminum beams that support the grating at the wet well extension required to be painted?

    Response: Aluminum grating and supports are not to be painted, except for surfaces that will be in direct contact with concrete or masonry, these surfaces are subject to the requirement for painting on the hidden side, or "backpainting", per paragraph 2.04.E of Section 05500.

24. Reference Drawings JV-M-002 & 003. Does the sump pump in the lower level of the Jefferson Valley Pump Station get replaced? If yes, is there a specification section available for it?

    Response: Sump pump in the lower level of the Jefferson Valley Pump Station shall be replaced; sump pump provided shall be appropriate for the application, be of good quality, and new.

25. Is barb[ed] wire required to be installed on any of the fences?

    Response: No.

26. MCC at Jefferson valley is GC Responsibility. Correct? Transfer switch is Electrical contractors? Converting Existing generator to 480 volt is GC responsibility?

    Response: The MCC shall be provided by the Electrical Contract. The VFDs and wet well controls shall be provided by the General Contract on backplanes suitable for installation inside the MCC compartments. General Contract to coordinate with Electrical Contract regarding space requirement. See Section 16480, Table 16480-1, Note (2).

27. The specs say we need to include power company fees. Can you change that? I cant get the fees that maybe associated with this project from the power company without additional info from the town. Billing address, site address, point of contact. Then they will assign power company rep to assess the projects. This could take weeks. We will have change overs and temporary services that need the power company involved. (lets discuss this one)

    Response: The fees referenced apply only to the application for new service. The Owner will be responsible for any utility charges (if any) associated with the utility's work to bring in new/upgraded service.

28. Who is providing the RTU for the Walden Woods Pump Station?

    Response: RTU is provide by General Contractor. Refer to Drawing 86-18742-WW-E003 and Section 17113, Web-Based SCADA Systems.

29. The HVAC Scope of work; was awarded or will be incorporated into this GC bid?

    Response: HVAC work to be incorporated into the General Contract.

30. Please provide us with the generator size. Plans state generator purchase by GC.

    Response: The engine generator for the pump station shall be sized by the pump station manufacturer to start and run both pumps while running other station accessories.

31. Specification Section 08390 - Watertight (Flood) Doors under Article 2.02 only lists the Mechanical Room door. Drawing JV A002 shows a pair of floor doors for the Generator Room as well as the new Mechanical Room door. Please confirm the pair of doors for the Generator Room is flood doors.

    Response: Both doors are to be flood doors, as listed under Section 08390, paragraph 2.02.B, and additionally called out as watertight doors on Drawing 86-18742-JV-A002.

32. What is the required width and height for the flood doors?

    Response: New doors shall be installed within the existing opening as shown on the Contract Drawings. Contractors shall field verify door dimensions. Single door height and width is 7 feet and 4 feet, respectively, while double height and width is 7 feet and 6 3-feet, respectively.