

**Addendum No. 2**

**For the**

**Heating Plant  
Modifications**

**At**

**Eden Support Center  
925 Bear-Corbitt Road  
Bear, Delaware 19701**

**Project No. 15.034**

**July 27, 2015**

**Attached is one (1) copy of Addendum No. 2 for each set of bidding documents in your possession. No specifications, Drawings or bid will be considered complete without this Addendum No. 2.**

**ADDENDUM NO. 2**

1. Replace BID QUOTATION with attached BID FORM, including Subcontractors List.
2. **CLARIFICATIONS:**
  - a. Include all demolition as shown on plans.
  - b. VFDs for P-3 and P-4 will be set and locked at balance.
  - c. Electrical Demolition Notes are on Drawing MEP-1, “MECHANICAL/ELECTRICAL PLANS.”
  - d. Bid Bond and Performance Bond ARE required.

**CHANGES TO SPECIFICATIONS**

1. **SECTION A – GENERAL PROVISIONS**

- a. Page 2, Paragraph 11: DELIVERY OF PROPOSALS:
  - Change delivery location of bids to:

**Eden Support Center  
920 Bear-Corbitt Road  
Bear, Delaware 19701**

2. **SPECIAL PROVISIONS**

- a. Paragraph 8: DELETE “b. Bid Bond Waived”.
- b. Paragraph 9: DELETE “b. Performance Bond Waived”.

3. **Section 230210, “BASIC MATERIALS & METHODS – HVAC”**

- a. Page 230210-1, Paragraph 1.2.A: ADD “11. GROOVED END PIPE (VICTAULIC)”
- b. Page 230210-5: INSERT Paragraph 2.11:

“2.11 GROOVED END PIPE (VICTAULIC)

A. All pipe shall be prepared in accordance with (ANSI/AWWA C-606). (CSA B242-M1980). (MIL-P-11087C Grooved End Pipe), or Victaulic (manufacturer's) published specifications as appropriate according to pipe materials, wall thickness, size and method of joining, as further detailed in Paragraph G: Pipe Preparation. In the event of conflict, Victaulic data shall prevail.

1. Iron Pipe Size: Pipe shall conform in size (outside diameter) to ANSI B-36.10 (API-5L) and/or to Victaulic (Manufacturer's) published outside diameter tolerances.

- a. Steel Pipe (CSI-15061): Steel pipe shall be black, conforming to ASTM A-53, Grade B, 3/4 - 1-1/2" (20-40 mm) Type F and 2 - 24" (50-600mm) Type E or S or hot-dip galvanized.

- B. Couplings shall consist of two ductile iron cast housings, a synthetic rubber gasket of a central cavity pressure-responsive design, with nuts, bolts, locking toggle or lugs to secure unit together.
1. Coupling Housings: Shall be cast of ductile iron conforming to ASTM A-536 (Grade 65-45-12) enamel coated, hot dip galvanized to ASTM A-153 or zinc electroplated to ASTM B-633, as manufactured by Victaulic Company of America. Refer to Victaulic product specifications for other materials.
    - a. Coatings: Shall consist of an enamel paint or hot dip galvanizing to ASTM A-153, or zinc electroplating to ASTM B-633 as specified.
  2. Couplings for End Steel Pipe: Shall be Victaulic couplings for grooved and steel pipe prepared under "Grooved End Pipe". Couplings shall comply with ASTM F1476 Standard Specification for the Performance of Gasketed Mechanical Couplings for Use In Piping Applications.
    - a. Line, Fittings and Valve Joints: Shall be Victaulic flexible Types Installation Ready Style 177, Style 75, 77 and rigid as required.
    - b. Rigid Joints: Coupling housings shall be cast with offsetting, angle-pattern bolt pads to provide joint rigidity and support and hanging in accordance with ANSI B31.1 and B31.9.
      - 1) Victaulic Style 107H, Installation Ready, for direct slab installation without field disassembly, with grade EHP gasket, suitable for water service to +250 deg. F.
      - 2) Victaulic Style 07 "Zero-Flex".
    - c. 14" and Larger: AGS Series two-segment couplings, with lead-in chamfer on housing key and wide width FlushSeal gasket. Victaulic Style W07 (rigid) and Style W77 (flexible).
    - d. Reducing Joints: Shall be Victaulic Style 750 Reducing couplings for pipe to pipe joints or to create reducing fittings using straight fitting configurations.
    - e. Outlets: All joints designed Outlet Couplings or where feasible to replace reducing outlet tees, shall be Victaulic Style 72 Outlet couplings male threaded outlet.
    - f. Flanged Connections: Shall be Victaulic Style 741 /W741 (2 - 24") Vic-Flange adapters, engaging directly into grooved pipe and bolting directly to ANSI Class 125 cast iron or Class 150 steel flanged components.
- C. Couplings for Grooved End Ductile Iron Pipe: Shall be Victaulic couplings for radius cut grooved ductile iron pipe preparation.
1. Line and Fittings Joints: Shall be Victaulic Style 31 couplings.

2. Flanged Connections: Shall be Victaulic Style 341 (4-24") (100-600mm) Vic-Flange adapters, engaging directly into grooved end pipe and bolting directly to ANSI Class 125 cast iron or Class 150 steel flanged components. Installer to supply standard flange bolts.
  3. For direct connection to IPS steel pipe sizes, couplings shall be Victaulic Style 307 transition couplings.
- D. Coupling Components:
1. Gaskets shall be molded of synthetic rubber in a central cavity, pressure-responsive configuration conforming to the pipe outside diameter and couplings housing, of elastomers having properties as designated in ASTM D-2000. Reference always shall be made to the latest published selection guide for Victaulic gaskets for proper gasket selection for the intended service.
    - a. Water Service: Gasket supplied for water services from -30 deg. F to +230 deg F (-34 deg. C to +110 deg. C) shall be a Grade "E" EPDM compound, with green color code, molded of materials conforming to ASTM D-2000, designation 2CA615A25B24F172, recommended for hot water service within the specified temperature range, plus a variety of dilute acids, oil-free air, and many chemical services. Not recommended for petroleum services.
  2. Bolts and Nuts shall be heat treated carbon steel, track head, conforming to physical properties of ASTM A-449 and A-183 minimum tensile 110,000 psi, zinc electroplated to ASTM B-633, as supplied or specified.
    - a. Other Fasteners: Fasteners to certain products may vary from the specification as noted with each product.
- E. Fittings: Shall be Victaulic full flow cast fittings, steel fittings or segmentally welded fittings with grooves or shoulders designed to accept Victaulic grooved end couplings.
1. Standard Fittings: Shall be cast of ductile iron conforming to ASTM A-536 (Grade 65-45-12) painted with enamel or hot dip galvanized to ASTM A-153 or zinc electroplated to ASTM B-633 as required.
  2. Standard Steel Fittings: Including large size elbows (16-24"/400-600mm) shall be forged steel conforming to ASTM A-234 Grade WPB (0.375" wall), painted with enamel or hot-dip galvanized to ASTM A-153.
  3. Standard Segmentally Welded Fittings: Shall be factory-fabricated of Schedule 40 carbon steel pipe as follows: 3/4 - 1-1/2" (20-40mm) conforming to ASTM A-53 Type F, 2 - 10" (50 - 250mm) Schedule 40 conforming to ASTM A-53, Type E or S, Grade B, 12 - 24" (300 - 600mm) 0.375" wall conforming to ASTM A-53, Type E or S, Grade B, painted with enamel or hot-dip galvanized to ASTM A-153.
- F. Branch outlets for hole cut steel pipe: Shall be Victaulic hole cut products, cast of materials as in Paragraph 4a, with gasket as detailed in Paragraph 3c, on pipe preparation in Paragraph G.

- G. Gauge, Meter Outlets for Hole Cut Steel Pipe: Shall be Victaulic strapless mechanical outlet products Style 923 Vic-Let, or 924 Vic-O-Well and shall provide a pipe outlet without a need for a strap or lower housing to wrap around the pipe.
- H. Pipe Preparation: Shall be prepared in accordance with the latest published Victaulic specifications, ANSI/AWWA C-606, CSA B-242, UL, FM, NFPA or other standards as applicable. Pressure ratings and end loads for cut grooved pipe are based upon tests on pipe prepared in accordance with Victaulic specifications.
- I. Steel Pipe: Shall be steel pipe conforming to ASTM A-53 Grade "B", 1-1/2" (25-40 mm) Type F, 2-14" (50 - 600 mm) Type E or S.
  - 1. Grooved End Pipe: Shall be grooved in accordance with Victaulic Standard Specifications.
    - a. Standard Weight Pipe shall be square cut grooved.
- J. Assembly: Couplings, fittings, valves and pipe shall be assembled in accordance with latest published instructions from Victaulic Company of America for the particular product installed.
  - 1. Pipe: Shall be checked to be certain it is sufficiently free of indentations, projections, grooves, weld seams, or roll marks on the exterior of the pipe over the entire gasket seating area to assure a leak-tight seat for the gasket, that pipe ends are square cut and that preparation is in accordance with Victaulic pipe preparation standards.
  - 2. Gasket: All gaskets shall be of the central cavity pressure-responsive design. Gasket style and elastomeric material (grade) shall be checked to be certain gasket supplied is suited for the intended service.
  - 3. Lubrication shall always be used for proper coupling/fitting assembly as follows:
    - a. Thorough lubrication of the gasket exterior including the lips and/or pipe ends and housing interiors, is essential to prevent pinching the gasket. Lubrication assists proper gasket seating and alignment during installation.
    - b. Use Victaulic Lubricant for installation. Other compatible materials such as silicone and others may be used; however, petroleum based lubricants must not be used on Grade "E" or "M" gaskets.
    - c. A thin coat of Victaulic lubricant shall be applied by brush or by hand by: 1) brushing on the gasket lips (ID) and the entire exterior of the gasket; 2) brushing lubricant on the pipe ends around the entire pipe circumference and inside the coupling housing.
  - 4. The coupling manufacturer's factory trained representative shall provide on-site training for the contractor's field personnel in the use of grooving tools and installation of product. The representative shall periodically visit the job site to ensure best practices in grooved product installation are being followed. (A distributor's representative is not considered qualified to conduct the training.)

K. Support:

1. The requirements of MSS-SP-69 "Pipe Hangers and Supports"- Selection and Application: shall, in general, govern the installation of hangers and supports, in accordance with the following recommendations:
  - a. Piping joined with grooved type couplings, like all other piping systems, requires support to carry the weight of pipes and equipment. Like all other methods of jointing pipes, the support or hanging method must be such as to eliminate undue stresses on joints, piping and other components. Additionally, the method of support must be such as to allow movement of pipes where required and to provide for other special requirements such as drainage, etc., as may be required by the designer. The support system for mechanical grooved type pipe couplings must consider some of the special requirements of these couplings."

4. Section 260155, "MOTOR STARTERS"

- a. Page 260155-3, Paragraph 2.2.F: CHANGE voltage from 480 volt to 208 volt.

**CHANGES TO DRAWINGS**

1. Drawing MEP-2, "MECHANICAL SCHEDULES & DETAILS"

- a. MECHANICAL EQUIPMENT ELECTRICAL REQUIREMENTS: CHANGE P-3 and P-4 circuit breakers to 35A-3/P.

Attachments: Bid Form

xc: All Attendees

**Christina School District – Eden Support Center  
Heating Plant Modifications**

**BID FORM**

**For Bids Due:** \_\_\_\_\_ **To:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Name of Bidder:** \_\_\_\_\_

**Delaware Business License No.:** \_\_\_\_\_ **Taxpayer ID No.:** \_\_\_\_\_

**(Other License Nos.):**

**Phone No.:** (        ) \_\_\_\_\_ - \_\_\_\_\_ **Fax No.:** (        ) \_\_\_\_\_ - \_\_\_\_\_

The undersigned, representing that he has read and understands the Bidding Documents and that this bid is made in accordance therewith, that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed, and that his bid is based upon the materials, systems and equipment described in the Bidding Documents without exception, hereby proposes and agrees to provide all labor, materials, plant, equipment, supplies, transport and other facilities required to execute the work described by the aforesaid documents for the lump sum itemized below:

**BASE BID:**

\$ \_\_\_\_\_ (\$ \_\_\_\_\_ . \_\_\_\_\_)

I / We acknowledge Addendums numbered \_\_\_\_\_ and the price(s) submitted include any cost / schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for \_\_\_\_\_ days from the date of opening of bids, and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid (if required).

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

**Christina School District – Eden Support Center  
Heating Plant Modifications**

**BID FORM**

**SUBCONTRACTOR LIST**

In accordance with Title 29, Chapter 6962 (d)(10)G Delaware Code, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor must be listed for each category where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the *Owner*, it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.

<b><u>Subcontractor Category</u></b>	<b><u>Subcontractor</u></b>	<b><u>Address (City &amp; State)</u></b>
1. <u>Electrical</u>	_____	_____ _____
2. <u>Insulation</u>	_____	_____ _____
3. _____	_____	_____ _____
4. _____	_____	_____ _____
5. _____	_____	_____ _____
6. _____	_____	_____ _____
7. _____	_____	_____ _____
8. _____	_____	_____ _____
9. _____	_____	_____ _____