

ADDENDUM NO. EIGHT (8)

Project: Harold D. Thompson Regional Water Reclamation Facility
Phase 1 – 2.5 MGD

Date of Addendum: December 6, 2011

Owner: Lower Fountain Metropolitan Sewage Disposal District

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THE FOLLOWING REVISIONS AND CLARIFICATIONS ARE HEREBY MADE TO THE BIDDING AND CONTRACT DOCUMENTS FOR THIS PROJECT:

PART I – GENERAL

1.01 SCOPE

- A. This Addendum forms a part of the Contract Documents and modifies the Project Manual and Drawings as described below.
- B. This Addendum consists of five (5) pages.

1.02 ACKNOWLEDGMENT

- A. Acknowledge receipt of this Addendum by return electronic mail correspondence.

PART II - PROJECT MANUAL

2.01 BIDDING REQUIREMENTS – This Addendum No. Eight (8) makes no changes to the Bidding Requirements

2.02 TECHNICAL SPECIFICATIONS

A. Section 02641 – Valves and Accessories

- 1. **REVISE** Paragraph 2.2.X.8. to read as follows:

"8. Operation: Open left (counterclockwise) via pentagon operating nut"

B. Section 03300 – Cast-In-Place Concrete

- 1. **ADD** new Paragraph 2.3. to read as follows:

"2.3. FLOWABLE BACKFILL

"A Place as indicated on the construction Drawings

B. Refer Colorado Department of Transportation Standard Specification Section 206.02

C. Mix Design

<u>Ingredients</u>	<u>lbs/CY</u>
Cement	50
Coarse aggregate (AASHTO No. 57 or 67)	1700
Fine Aggregate (AASHTO M6)	1845
Water	325 (or as needed)"

C. Section 13100 – Lightning Protection

1. **CLARIFICATION:** Materials and installation shall be in accordance with Underwriters Laboratories (UL) requirements as specified.
2. **REVISE** Paragraph 1.5.A. to read as follows:
"A. Perform Work in accordance with NFPA 708 and UL"
3. **DELETE** Paragraph 3.3 in its entirety.

D. Section 15060 – Pipe and Pipe Fittings

1. **REVISE** Paragraph 2.1.B.1. to read as follows:
"1. Air tubing: ASTM B88; FS WW-T-799, Type K; or FS WW-T-775"
2. **ADD** new Paragraphs 2.1.B.8. and 9. to read as follows
"8. Copper tubing to be used as indicated and scheduled on the Drawings
9. Copper tubing shall not be used on water service unless otherwise indicated on the Drawings"
3. **REVISE** the first line of Paragraph 2.1.D. to read as follows:
"D. Chlorinated Polyvinyl Chloride (CPVC) Pipe"
4. **ADD** new Paragraph 2.1.N. to read as follows:
"N. Cross-Linked Polyethylene (PEX) Water Service Tubing
 1. Design basis: PEX tubing (PEX 1006)
 2. SDR 9
 3. Added components
 - a. Metal insert fittings: ASTM F1807
 - b. Cold expansion fittings: ASTM F1960
 - c. Plastic insert fittings: ASTM F2159
 4. Conformance: ASTM F876, ASTM F877, NSF-PW, CSA B137.5
 6. Pressure rating: 160 psi @ 73.4°F
 7. Cold water PEX piping to be blue in color
 8. Hot water PEX piping to be red in color"
5. **REVISE** the first line of Paragraph 3.4.D. to read as follows:
"D. Copper Air Tubing

1. Hard drawn with solder fittings (to be used for 3" or smaller piping inside structures or buildings only where specifically noted on Drawings
 2. Soft annealed with flared fittings (1¼" or smaller) submerged or in contact with earth"
6. **REVISE** the first line of Paragraph 3.4.I. to read as follows:
- "I. PVC and CPVC Pipe"
7. **ADD** new Paragraphs 3.4.I.4. and 5. to read as follows:
- "4. Size as shown on the Drawings
 5. At locations indicated on the Drawings"
8. **ADD** new Paragraph 3.4.M. to read as follows:
- "M. Cross-Linked Polyethylene (PEX) Water Service Tubing
1. Potable (cold) water supply piping
 2. Potable (hot) water supply piping
 3. Size as shown on the Drawings
 4. At locations indicated on the Drawings"

E. Specification Section 15082 – Plumbing Insulation

1. **ADD** new Paragraphs 3.10.C. and D. to read as follows:
- "C. Domestic Cold Water
1. 1½" and smaller: Insulation shall be the following
 - a. Mineral-fiber, preformed pipe insulation, Type I: 1-inch thick
 2. 2" and larger: Insulation shall be the following
 - a. Mineral-fiber, preformed pipe insulation, Type I: 3-inches thick
- D. Nonpotable Water
1. 1½" and smaller: Insulation shall be the following
 - a. Mineral-fiber, preformed pipe insulation, Type I: 1-inch thick
 2. 2" and larger: Insulation shall be the following
 - a. Mineral-fiber, preformed pipe insulation, Type I: 3-inches thick
 3. Provide where shown on the Drawings or otherwise specified"

F. Specification Section 15195 – Natural Gas Piping

1. **DELETE** Paragraph 2.5.B. in its entirety.
 2. **REVISE** Paragraph 2.6.B. to read as follows:
- "B. Tracer Wire
1. Material: #12 solid copper insulated tracer wire
 2. Insulation: 30 mil minimum Polyvinylchloride (PVC) insulation thickness
 3. Insulation color: Yellow

4. Couplings: Compression type, non-corrosive, Burndy Crimpits No. VC10C10, or equivalent
 5. Tracer wire is required in addition to detectable warning tape
 6. Conformance: Federal Specification A-A-59544"
3. **ADD** new Paragraph 3.4.I. to read as follows:
- "I. Install isolation valve sized to match service line above the ground surface on the steel riser pipe, minimum 6" and maximum of 16" from each building foundation
 - a. Install protection bollards as specified or otherwise required by local code"
4. **REVISE** Paragraph 3.9.A. to read as follows:
- "A. Install detectable warning tape directly above gas piping and tracer wire, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs"
5. **ADD** new Paragraph 3.9.B. to read as follows:
- "B. Tracer Wire
 1. Install tracer wire on top of all underground gas service line
 - a. Attach with plastic tape applied at 5' intervals
 2. Extend tracer wire up to ground surface on the gas riser pipe with 3 feet of additional tracer wire coiled at ground surface
 3. At all lines that will be extended in the future, coil 20 additional lineal feet of tracer wire at the stubout location

G. Specification Section 15400 – Plumbing

1. **REVISE** Paragraph 2.1.C.4. to read as follows:
 - "4. Water heater
 - a. Refer to Plumbing Schedule on Drawings
 - b. Natural gas, insulated, glass-lined with 1 gallon expansion tank
 - c. Floor mount
 - d. Volume: Refer to Building Fixture Schedule on Drawings
 - e. Design basis: Rheem Professional™ powered damper gas unit heater
 - 1) Refer to Building Fixture Schedule on Drawings for specific equipment"

H. Specification Section 15815 – Metal Ducts

1. **ADD** new Paragraph 2.4.A.1. to read as follows:
 - "1. Duct liner to be installed on all ductwork, rigid metal and flexible, with a minimum R-value of 4.2 or as required by the jurisdictional agency"

PART III – DRAWINGS

3.01 SHEET EM-9

- A. **REVISE** note No. 6 to read as follows:

"6. POTABLE WATER PIPING SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS."

B. **ADD** the following new note No. 10 to read as follows:

"10. ALL EXPOSED DOMESTIC COLD AND HOT WATER PIPING AND NONPOTABLE WATER PIPING SHALL BE INSULATED. PROVIDE INSULATION WHERE CONCEALED AND SHOWN OR OTHERWISE SPECIFIED ON THE DRAWINGS."

3.02 SHEET EM-10

A. **REVISE** Sheet Note No. 3 to read as follows:

"3. ...

PANEL: ARMSTRONG® RANDOM TEXTURED PRODUCT NO. 333 OR PRODUCT NO. 769

PANEL COLOR: WHITE

PANEL SIZE: 24" X 48" X 5/8"

GRID SYSTEM: ARMSTRONG® PRELUDE 15/16" EXPOSED TEE SYSTEM

GRID COLOR: WHITE"

B. **ADD** the following new Sheet Note No. 8 to read as follows:

"8. REFERENCES TO METAL STRUCTURAL FRAMING MATERIALS SHALL BE CONSIDERED TO BE DIMENSION LUMBER SIZES:

2x4 = 1-1/2"x3-1/2"

2x6 = 1-1/2"x5-1/2"

2x8 = 1-1/2"x7-1/4" "

3.03 SHEET EM-11

A. **REVISE** Drop Ceiling notes on Sections A, C and F to read as follows:

"DROP CEILING 12'-0" AFF. ARMSTRONG® NO. 933 OR 769 PANEL W/ ARMSTRONG® PRELUDE 15/16" EXPOSED TEE GRID SYSTEM OR APPROVED EQUAL. SUSPEND FROM BUILDING STRUCTURE IN STRICT ACCORDANCE WITH MANUFACTURER'S STANDARD INSTALLATION DETAILS. ATTACH AT PERIMIETER TO BUILDING WALL PANELS OR FRAMING WITH METAL SCREWS."

THIS ADDENDUM IS HEREBY MADE A PART OF THE BIDDING AND CONTRACT DOCUMENTS FOR THIS PROJECT AND IS BINDING AS IF PRINTED AND BOUND THEREIN. ALL BIDDERS SHALL ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE APPROPRIATE LOCATION ON THE BID FORM.

END OF ADDENDUM NO. EIGHT (8)