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**ADDENDUM NO. 1**

**DATE:** JULY 11, 2017  
**TO:** ALL PLAN HOLDERS OF THE:  
CONSTRUCTION OF PUMP STATION  
EAST MAIN AVENUE WELL #1 PROJECT  
**FROM:** DAVID GITTLESON – CITY OF MORGAN HILL  
**SUBJECT:** ADDITIONS/CLARIFICATIONS

**UNDER "TECHNCIAL SPECIFICATIONS"**

**REPLACE:** Section 15700- Ventilation  
**WITH:** Revised Section 15700-Ventilation

**UNDER "PLANS"**

**REPLACE:** Plan Sheets S-2 and S-4  
**WITH:** Revised Plan Sheet S-2 and S-4

**BID QUESTION**

Is VFD Cable required running from VFD's to motors? If so, please provide spec on cable.

**RESPONSE**

The VFD design has an output filter and is close coupled to the motor. This does not require a special VFD cable since it attenuates the voltage spikes.

If the VFD manufacturer they are using requires VFD cable to maintain the warrantee then VFD cable needs to be provided to maintain the warrantee. This will probably require an increase in motor conduit from 2" to 2.5" or 3".

**ADDENDUM ACKNOWLEDGMENT**

Bidder acknowledges receipt of this addendum, which shall be attached to the proposal.

\_\_\_\_\_  
Contractor's Representative

\_\_\_\_\_  
Date

**THIS DOCUMENT AND THE ATTACHMENTS SHALL BECOME PART OF THE PROJECTS  
SPECIFICATION**

attachments: REVISED SECTION 15700-VENTILIZATION, REVISED PLAN SHEETS S-2 AND S-4

## SECTION 15700 - VENTILATION

### Bid Item No. 23

#### PART 1 – GENERAL

##### 1.01 SCOPE

- A. This Section covers the work necessary to furnish and install a wall fan, floor mounted blowers, acoustical louvers as well as other ventilation components specified herein, complete. The Contractor shall furnish all labor and materials needed to complete the work included in this section, complete. The Contractor shall refer to SECTION 10050 – BUILDING and the Drawings for additional information and details.

##### 1.02 DESIGN REQUIREMENTS

- A. Design and provide seismic anchorage and bracing for all equipment, whether shown or not. Provide seismic restraint to prevent permanent displacement in any direction caused by lateral motion, overturning or uplift.

#### PART 2 – MATERIALS

##### 2.01 CHEMICAL FEED ROOM FLOOR-MOUNTED BLOWER

- A. The Contractor shall furnish and install one corrosive resistant direct drive electric radial blower as well as all ducting and rain cap for the chemical feed room. The blower shall include the following:
1. The motor shall be 1/2 horsepower, 115-volt single phase, 1725 RPM, fan cooled. The fan/motor shall have a polypropylene wheel, fiberglass housing, with a 278 CFM blower capability at a static pressure of 1 inch of H<sub>2</sub>O.
  2. Fan housing shall be constructed of Ashland Hetron 693 polyester resin and glass fiber with 3% antimony trioxide added to achieve Class I flame spread below 25. Fan construction shall conform to ASTM D4167 for fiber reinforced plastic fans and blowers. All fiberglass surfaces shall be protected with a minimum 10 mil thickness of chemical, flame, and ultraviolet resistant resin. The entire housing shall have a finish coat of resin to provide superior protection and smooth air flow. All airstream hardware shall be 304 stainless steel.
  3. Fan shaft shall be ground and polished carbon steel with an FRP wheel hub extending through the housing.
  4. The blower shall be equipped with a flexible connector fitted to a rigid 8-inch diameter PVC duct and PVC rain cap, ducted through the ceiling and roof as shown in the Drawings.

The fan shall be configured to direct air upward (upblast arrangement).

5. The blower shall be equipped with a drain (½ inch fiberglass half coupling assembled in the blower housing).
6. Anchor bolts shall be Type 316 stainless steel, quantity, insert, and size by manufacturer.
7. The blower shall be connected to door switches that turn the fans on when door is open, off when closed. Manual over-ride switches shall also be provided on the exterior wall.
8. The blower shall be manufactured by Hartzell Fan Inc. Model # A42-4-10-F100FG\_\_F3, or approved equal.

## **2.02 WALL MOUNTED FAN**

- A. The Contractor shall furnish and install wall mounted fan units at locations indicated in the Drawings. Fans shall be a wall mounted, direct driven propeller exhaust fan with integral housing, shutter and inlet guard. Fans shall include the following:
1. The fans shall be of bolted and welded construction utilizing corrosion resistant fasteners. The motor shall be mounted on a 12-gauge steel wire guard. The wire guard shall be bolted to a minimum 14-gauge wall panel with continuously welded corners and an integral venturi. Fan shall be enclosed in minimum 18-gauge galvanized steel wall housing with factory installed shutter and inlet guard.
  2. Unit shall bear an engraved nameplate. Nameplate shall indicate design CFM and static pressure.
  3. All ungalvanized steel fan components shall have an electrostatically applied, baked polyester powder coating. Propeller shall have aluminum blades riveted to a painted steel hub. Propeller shall be balanced in accordance with AMCA Standard 204-96, Balance Quality and Vibration Levels for Fan.
  4. Motor shall be 115V, single phase, 60 Hz, ¼ horsepower, open drip proof type with permanently lubricated sealed bearings.
  5. The unit shall be provided with a mechanical, commercial grade thermostat
  6. The unit shall be provided with a fan speed controller to adjust the fan speed. Fan shall be rated to 1969 cfm @ 0 inches of water column static pressure.
  7. Fans shall be a Model 14XP32D132, as manufactured by Loren Cook Company of Springfield, Missouri, or approved equal.

## **2.03 LOW PROFILE ROOF VENTS**

- A. The Contractor shall furnish and install low profile roof vents at locations indicated in the Drawings.
- B. Roof vents shall have a minimum 72" sq. in. per unit and 36"x28" base for mounting.
- C. The roof vent shall be constructed from galvanized metal and color selected by City.
- D. Roof vents shall be Low-Profile Slant Back Vent Model #VTS572EF as manufactured by VentSure / Owens Corning or approved equal.

#### **2.04 ACOUSTICAL LOUVERS**

- A. The concrete block building is designed with two 1 ft x 4 ft sized acoustical louvers. Acoustical louvers shall have a minimum 50% free area. The submitted acoustical louvers must be approximately this size. Any deviation that requires altering the dimensions of the building must be submitted to the Engineer in writing for approval before construction.
- B. The acoustical louvers shall be capable of limiting the noise produced by the pump station to 50 dBA at 10 feet directly in front of the louver. The acoustical louvers shall be designed by a company that specializes in sound attenuation. The acoustical louver design shall be accompanied with a chart or graph that displays the expected noise reduction for frequencies in the dBA scale. A letter shall also be submitted from the manufacturer stating that the louvers will meet the 50 dBA at 10 feet requirement.
- C. Louver blades shall be acoustical on a 45-degree angle with 6 lb. per cubic foot mineral wood filler between 20 gauge galvanized face and 22 gauge galvanized perforate. Frame shall be 6" deep 16 gauge galvanized. Screen shall consist of 1/2" mesh 19 gauge galvanized in removable frame mounted on interior. Louver shall be finished with Polyurethane Enamel, Kynar 500, or another finished selected from NCA's standard color chart. Louvers shall be tested per AMCA standard 511 for water and air and ASTM E 90-97 for acoustics, and perform as per NCA specifications. Louver size and locations are as shown on plans. The Contractor shall furnish and install model ACSLJ-6 louvers, manufactured by NCA Manufacturing.

### **PART 3 – EXECUTION**

#### **3.01 INSTALLATION**

##### **A. Wall Fan**

Contractor shall follow manufacturer's instructions to minimize vibration. Installation shall be performed by a licensed, qualified mechanical contractor experienced in the installation of air conditioning systems. Installation shall adhere to the manufacturer's instructions and pertinent local building codes. Use only factory-authorized parts and materials.

#### **3.02 TESTING**

- A. The Contractor shall test all components specified herein as required by the manufacturer and as specified in the electrical drawings and specifications.

**PART 4 – MEASUREMENT AND PAYMENT**

All work as specified herein, satisfactorily completed, shall be paid for on a Lump Sum basis as stated in **Bid Item Schedule** for the item listed below:

**Bid Item No. 23 – VENTILATION**

**-END OF SECTION-**