

From: School District No. 4J/ Facilities Management
715 W. 4th Avenue
Eugene, Oregon 97402

To: All Plan holders of Record

ADDENDUM NUMBER ONE

Multi-Site Ventilation Improvements Project

Addendum date: June 14, 2023

Page 1 of 1

This addendum is issued to clarify, change and correct the Project Manual and Contract Documents and shall form a part of the Contract. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification. The following clarifications and/or changes are made herewith:

Bid Due Date Change: June 20, 2023 2:00 PM

GENERAL

- 1) A copy of the Sign-in Sheets for the Site Prebid meeting, held on June 6, 2023, is attached.

PREBID MEETING DISCUSSION SUBJECTS & RELATED CLARIFICATIONS

- 1) Controls & Low-voltage Wiring of Modular Exhaust Fan Units:
 - a. Modular Exhaust Fan (MEF) staging controller: this device will be furnished by District for installation by Contractor in each MEF unit.
 - b. All low-voltage wiring between staging controller and existing damper controller inside Unit Ventilator cabinet shall be provided (furnished and installed) by Contractor.
- 2) Controls & Low-voltage Wiring of New Fan Coil Units:
 - a. District will provide (furnish and install) fan coil unit ddc controllers and space temperature sensors (thermostats), and associated low-voltage wiring.
 - b. Contractor shall provide (furnish and install) low-voltage damper actuators and valve actuators. Actuators shall be modulating proportional type, manufactured by Belimo.

ADDITIONAL REQUIREMENTS AND/OR COMMENTS

- 1) NOT USED

SPECIFICATIONS AND DRAWINGS

- 1) Section 23 82 19 Fan Coil Units is attached herewith, and hereby

incorporated into the Project Specifications.

END OF ADDENDUM #1

SECTION 23 82 19
FAN COIL UNITS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fan-coil units.

1.02 RELATED REQUIREMENTS

- A. Section 23 07 19 - HVAC Piping Insulation.
- B. Section 23 21 13 - Hydronic Piping.
- C. Section 23 21 14 - Hydronic Specialties.
- D. Section 23 31 00 - HVAC Ducts and Casings.
- E. Section 26 27 17 - Equipment Wiring: Electrical characteristics and wiring connections. Installation of room thermostats. Electrical supply to units.

1.03 REFERENCE STANDARDS

- A. AHRI Directory of Certified Product Performance - Air-Conditioning, Heating, and Refrigeration Institute (AHRI); current edition at www.ahrinet.org.
- B. AHRI 350 - Sound Performance Rating of Non-Ducted Indoor Air-Conditioning Equipment; latest edition.
- D. AHRI 440 - Performance Rating of Room Fan-Coil Units; latest edition.
- F. ASHRAE (HVAC) - ASHRAE Handbook - HVAC Applications; latest edition.
- N. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- O. NFPA 90A - Standard for the Installation of Air-Conditioning and Ventilating Systems; latest edition.
- P. SMACNA (DCS) - HVAC Duct Construction Standards Metal and Flexible; latest edition.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Meeting: Conduct a pre-installation meeting one week prior to the start of the work of this section; require attendance by all affected installers.
- B. Sequencing: Ensure that utility connections are achieved in an orderly and expeditious manner.

1.05 SUBMITTALS

- A. See Section 01 33 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide typical catalog of information including arrangements.
- C. Shop Drawings:
 - 1. Submit the following for blower-coil units indicating:
 - a. Overall dimensions including installation, operation, and service clearances.
 - b. Fan curves with specified operating point clearly plotted.
 - c. Safety and start-up instructions.
 - 2. Indicate mechanical and electrical service locations and requirements.
- D. Manufacturer's Instructions: Indicate installation instructions and recommendations.
- E. Project Record Documents: Record actual locations of components and locations of access doors in radiation cabinets required for access or valving.
- F. Operation and Maintenance Data: Include manufacturer's descriptive literature, operating instructions, installation instructions, maintenance and repair data, and parts listings.
- G. Warranty: Submit manufacturer's warranty and ensure forms have been completed in Owner's name and registered with manufacturer.
- H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.

1. See Section 01 60 00 - Product Requirements, for additional provisions.
2. Extra Filters: One set of each type and size.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
- B. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

1.07 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

PART 2 PRODUCTS

2.01 SEE SECTION 01 60 00 FOR ADDITIONAL REQUIREMENTS.

2.02 FAN COIL UNITS

- A. Manufacturers:
 1. Vertical Cabinet, Horizontal Exposed, or Horizontal Recessed:
 - a. Carrier, a part of UTC Building and Industrial Systems, a unit of United Technologies Corp; www.commercial.carrier.com.
 - b. Daikin Applied; www.daikinapplied.com.
 - c. Trane, a brand of Ingersoll Rand; www.trane.com.
 - d. Substitutions: See Section 01 60 00 - Product Requirements.
- B. Performance Data and Safety Requirements:
 1. Unit capacities certified in accordance with AHRI 440.
 2. Provide products listed, classified, and labeled by Underwriters Laboratories Inc. (UL), Intertek (ETL), or testing firm acceptable to Authority Having Jurisdiction as suitable for the purpose indicated.
 3. Insulation to comply with NFPA 90A requirements for flame spread and smoke generation.
 4. Equipment wiring to comply with requirements of NFPA 70.
- C. Required Directory Listings: AHRI Directory of Certified Product Performance - Air-Conditioning, Heating, and Refrigeration Institute (AHRI).
- D. Coils:
 1. Evenly spaced aluminum fins mechanically bonded to copper tubes.
 2. Water Coil: Suitable for working temperatures not less than 200 degrees F.
 3. Provide drain pan under future cooling coil location, easily removable for cleaning.
- E. Vertical Cabinet and Horizontal Exposed Units: Minimum 18 gage, 0.0478 inch thick sheet steel with exposed corners and edges rounded, easily removed panels, glass fiber insulation, integral air outlet, and inlet grilles.
- F. Finish: Factory applied baked primer coat on visible surfaces of enclosure or cabinet.
- G. Fans: Centrifugal forward-curved double-width wheels, statically and dynamically balanced, direct driven.
- H. Motor: Tap wound multiple speed permanent split capacitor with sleeve bearings, resiliently mounted.
- I. Controls:
 1. Fan Coil Unit Manufacturer's Controls:
 - a. OEM unit controller.
 - b. Disconnect switch.
 2. DDC controller and thermostat for each fan coil unit will be provided (furnished and installed) by 4j Technicians
- J. Filter: Easily removed 1 inch thick glass fiber throw-away type, located to filter air before coil.
- K. Fresh Air Dampers: Low-leakage, with Belimo proportional control actuator, each fan coil unit.

- N. Electrical Characteristics:
 - 1. As Scheduled.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are suitable for installation.
- B. Verify that field measurements are as shown on the drawings.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's recommendations.
- B. Do not damage equipment or finishes.
- C. Fan-Coil Units:
 - 1. Install as indicated.
 - 2. Coordinate to ensure equipment is ready for future DX or Chilled Water cooling coil installation, having access panel, condensate pan and drain connection (capped), and space for future coil.
 - 3. Make connections to hydronic coils with unions and flanges.
 - 5. Hydronic (Drainable) Coils:
 - a. Connect water supply to leaving air side of coil (counterflow arrangement).
 - b. Provide with shut-off valve on supply piping and tamper-proof, balancing valve with memory stop on return piping.
 - c. Locate supply water connection on leaving air side at bottom of supply header, and return water connection at top.
 - d. Provide manual air vents with stop valves at high points.
 - e. Install drain connections at low points.
 - 6. Cooling Coils:
 - a. Provide space and access panel for future cooling coil installation.
 - b. Cooling Condensate Drain Pan and Drain Connection:
 - 1) Fabricate from galvanized 20 gage, 0.0359 inch sheet steel, extend 3 inches from face of entering air side, 6 inches from the face of the leaving air side, and 4 inches from the face of moisture eliminators.
 - 2) Design slope in accordance with ASHRAE Std 62.1 and install to prevent standing water.
 - 3) Cap condensate drain connection outside unit.
 - 7. Locate all piping clear of other work.

3.03 FIELD QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements, for additional requirements.

3.04 CLEANING

- A. See Section 01 74 19 - Construction Waste Management and Disposal, for additional requirements.
- B. After construction and painting is completed, clean exposed surfaces of units.
- C. Vacuum clean coils and inside of units.
- D. Touch-up marred or scratched surfaces of factory-finished cabinets using finish materials furnished by the manufacturer.
- E. Install new filters.

3.05 CLOSEOUT ACTIVITIES

- A. See Section 01 77 00 - Closeout Procedures.
- B. See Section 01 79 00 - Demonstration and Training, for additional requirements.

3.06 PROTECTION

- A. Provide finished cabinet units with protective covers during the balance of construction.

END OF SECTION 23 82 19

Eugene School District 4J

MS Ventilation

Pre Bid Meeting

6/6/23

Company: FM Sheet Metal

Representative: Craig Hayes

Address: _____

Phone: 541-954-3672

Fax: _____

E-mail: chayes@fm-sheetmetal.com

Company: Belco Electrical Construction

Representative: Rob Belco

Address: PO Box 40307 Eugene

Phone: 541-844-5036

Fax: _____

E-mail: rob@belcoecs.com

Company: _____

Representative: _____

Address: _____

Phone: _____

Fax: _____

E-mail: _____

Company: _____

Representative: _____

Address: _____

Phone: _____

Fax: _____

E-mail: _____

Company: _____