

**AMENDMENT A00003
ISSUE DATE: 06-01-16
FCA UPGRADE AHU / SYSTEMS
SSC# 2014-241**

**FROM: SSC ENGINEERING, INC.
18207 EDISON AVENUE
CHESTERFIELD, MO 63005
PH: 636-530-7770
FAX: 636-530-7877**

GENERAL

- A. Drawings
1. 1-2BI-GC-001 (Sheet re-issued)
 - a. Added additional "General Notes."
 2. 1-2BI-PL-001, 1-2BI-FP-001, 1-2BI-E-001 (Sheets not re-issued)
 - a. "BID ITEMS AND PROJECT PHASING" Note 1 referring to "8:00PM – 5:00PM" shall be changed to read, "8:00PM – 5:00**AM**."

MECHANICAL

- A. Specifications 23 09 23
1. Add 2.10, E, 6, a to read, "Water coil optimization is required only required chilled water valves serving Air Handling Units. Terminal unit and fan coil unit coils do not require water coil optimization (energy valve)."
 2. Add 2.11, B, 5 to read, "Outside Airflow Measurement Systems for Rainhoods - The system shall be capable of direct measurement of airflow through an outside air inlet and produce dual outputs; one representing the measured airflow, and the other to control the inlet damper. The sensors shall be corrosion resistant; all non-painted surfaces shall be constructed of stainless steel. The electronics enclosure shall be NEMA 1."
 3. Add 2.11, C, 5 to read, "Thermal Fan Inlet Airflow Measuring Probe: Each probe array shall consist of one pair of single-point measuring probes and a single microprocessor based transmitter. The transmitter shall be supplied by the same manufacturer as the probe array(s). Each probe array shall be assembled using heavy wall anodized aluminum tubing, stainless steel adjustable support struts, stainless steel mounting brackets, and an aerodynamically optimized molded sensing apertures to ensure accurate measurement in angular airflow conditions. Probe arrays shall be connected to the transmitter using cable of up to 100' in length, included with the transmitter. Each stand-alone sensing point shall use an ambient temperature thermistor and an externally heated thermistor to determine the point velocity and temperature. Automatic equal area averaging of the individual point measurements shall be performed in the transmitter. Each airflow sensor shall have an operating range of 0-10,000 FPM, with a NIST traceable accuracy of $\pm 2\%$ of reading for velocity measurement and 0.1°F for temperature measurement. Individual sensors shall be fully field serviceable without need for field calibration, not requiring that the probe be returned to the Factory for repair and/or calibration. The operating temperature range of the transmitter shall be from -20° to 140°F . The transmitter with probe array shall measure with an accuracy of $\pm 2-3\%$ of actual flow with field calibration."
 4. Change 2.11, D and associated subparagraphs to read, "NOT USED".
 5. Change 2.11, E to read, "NOT USED".
 6. Change 2.11, F and associated subparagraphs to read, "NOT USED".
- B. Drawings (All sheets below re-issued)
1. 1-2BI-M-001
 - a. Added existing direct digital controls system coordination note.
 2. 1-2BI-M-101
 - a. Added "Mechanical General Note" #6.
 - b. Added keyed note #23 to coordinate new section of ductwork with plumbing contractor.

AMENDMENT A00003
ISSUE DATE: 06-01-16
FCA UPGRADE AHU / SYSTEMS
SSC# 2014-241

3. 1-2BI-M-102
 - a. Added "Mechanical General Note" #7.
 - b. AC-49" tags were changed to "AC-48".
 - c. Added notes on the energy recovery glycol coil and associated piping (HRC-50).
4. 1-2BI-M-103
 - a. "AC-49" tags were changed to "AC-48".
 - b. Added "Mechanical General Note" #8.
5. 1-2BI-M-502
 - a. Added containment pan detail.
6. 1-2BI-M-503
 - a. Added VAVR 50-1 and AFMS50S-1 systems to serve existing 5th Floor.
 - b. Added balancing arrows to existing 5th floor areas.
7. 1-2BI-504
 - a. Added keyed note #8 to read, "Demo ductwork shown bold-dashed" associated with the AC-51 riser diagram.
8. 1-2BI-M-505
 - a. Revised "AC Control Diagram" Airflow Measuring Device locations.
 - b. Added "Terminal Unit (Return) Sequence of Operation."
 - c. Added "UPS Containment Pan Leak Detection" sequence.
9. 1-2BI-601
 - a. Re-assigned remarks on "Variable Frequency Drive" schedule.
 - b. Changed nominal CFM on "VAVR Terminal Unit Schedule".
 - c. Revised "Airflow Measuring Station Schedule".
 - d. Clarified glycol requirements for "Heat Recovery Coil" system.
 - e. Revised "Control Valve Schedule".

ELECTRICAL

- A. Drawings
 1. Sheet 1-2BI-E-102 (Sheet not re-issued)
 - a. The VFD for AC-51 Return Fan shall be mounted on the east wall of the mezzanine in lieu of on the side of AC-51.
 - b. Keyed note 6 shall apply to EF-49, EF-50 and EF-51,

PLUMBING

- A. Drawings
 1. 1-2BI-PL-001 - Sheet re-issued
 - a. Added keyed note #5 to coordinate with new mechanical ductwork.