

## ADDENDUM NO.1

March 23, 2020

PROJECT NAME: Madison Junior High School Cooling Tower/Heat Exchanger

The data included hereinafter is issued by the Engineer (Engineered Systems Associates, Inc. 1355 East Center, Pocatello, ID 83201) as clarification, addition to, and/or deletion from the Drawings, Specifications, and Contract Documents relative to the above-named project.

Except as affected by data included hereinafter, all other parts of the Contract Documents shall remain in full force and effect as issued by the Engineer. It shall be the sole responsibility of the Bidder to appropriately disseminate this data to all concerned prior to the assigned bid time and date.

Acknowledge Receipt of this addendum shall be recorded by the Bidder in the appropriate space on the Bid Form included in the Contract Documents. Failure to do so may subject the bidder to disqualification

Attached is the sign-in sheet from the Pre-Bid Conference held on Wednesday, March 18, 2020 for your information only.

This addendum consists of  2  page(s) and  2  page(s) attachment for a total of  4  page(s).

### Specifications:

1. Section 23 2123 Circulating Pumps and Accessories: Delete paragraph 2.3 Inline Circulators. Add in Base Mounted Pumps and Pump Suction Diffusers:

#### 2.3 BASE MOUNTED PUMPS

- A. Pack-less flexible coupled, end suction vertically split case design to facilitate servicing all internal components without disturbing pump, volute or motor. The pump volute shall be supplied with plugged vent, drain, and gage tappings. The pump casing shall be of Class 30 cast iron, suitable for 175 PSI working pressure.
- B. The pump and motor shall be mounted on a common base plate of heavy structural steel design and securely welded cross members and open grouting area. Securely bolted to isolation base as specified and to the 6-inch high concrete base. Weight of piping shall not be supported on pumps. The pump shall be factory tested before shipment.
- C. The motor shall meet NEMA specifications and shall be the size, voltage and enclosure called for on the plans. Pump and motor shall be factory aligned and shall be realigned by the Contractor after installation prior to start up.
- D. 1750 rpm with bronze impeller, wearing rings, stainless steel shaft, and ceramic seal. The pump bearings shall be the re-greaseable camlock ball bearing type with provision for purging or flushing through the bearing surface, and capable of being inspected by removing the bearing cover. The shaft shall be of 18-8 stainless steel on standard mechanical seal models.
- E. Internally flushed seals shall be mechanical type with ceramic seal and carbon ring, suitable for continuous operation at 225 deg. F. The seals shall be capable of being serviced without disconnecting the pump from piping.

- F. Impeller shall be of the enclosed end-suction type in bronze construction and shall be dynamically balanced for quiet operation. Impeller shall be shaved to provide exact operating point specified on drawings. Motor size shall be as shown on drawing but if an alternate pump is supplied that could operate in the overload range, a large motor shall be furnished. Motor shall not operate overloaded. Any additional electrical cost for oversized motor shall be borne by pump manufacturer's representative.
- G. A flexible, Center Drop-out spacer type coupler, capable of absorbing torsional vibration, shall be employed between the pump and motor. Coupler shall be shielded by a Coupler Guard securely fastened to the base.
- H. Approved Manufacturers:
  - 1. Bell & Gossett
  - 2. Armstrong
  - 3. Grundfos
  - 4. Taco

#### 2.4 PUMP SUCTION DIFFUSERS:

- A. Match system pipe size and pump inlet size shall be furnished and installed where shown on drawings.
- B. Angle type body with inlet vanes and combination diffuser-strainer-orifice cylinder.
- C. Approved Manufacturers:
  - 1. Bell & Gossett
  - 2. Armstrong
  - 3. Or approved equal
  - 4. Taco

- 2. Section 23 2510 Glycol Feed Pump to be Model MF-300 (17 gallon).

#### Drawings:

- 1. See revised Sheet M-1 drawing attached.

#### Prior Approvals:

- 1. Section 23 2113 Hydronic Piping: Taco, Amtrol
- 2. Section 23 2123 Circulating Pumps and Accessories: Taco, Twin City Hose, Miljoco
- 3. Section 23 5719 Plate and Frame Heat Exchanger: Taco, Sondex, Polaris

END OF ADDENDUM



# Engineered Systems

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SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_

PREPARED BY: DCS DATE 3/18/20

CHECKED BY: \_\_\_\_\_ DATE \_\_\_\_\_

SCALE \_\_\_\_\_

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