



September 11, 2020

Embry-Riddle Aeronautical University  
1 Aerospace Boulevard  
Daytona Beach, FL 32114

Re: **Embry-Riddle Aeronautical University Fitness Complex**  
Addendum 2 –Narrative  
Project Number: 20-001

### **Addendum 2 Narrative:**

This Addendum is being issued to provide clarifications and additional information to the Contractors bidding the ERAU Fitness Complex project. The following narrative describes changes to the Issue for Permit documents that need to be included in the bid:

#### **Architectural:**

1. Revise specification section 075216 Membrane Roofing as follows:  
Article 2.1, paragraph A.2: Change "D-188" to read "S-188".  
Article 2.4, add the following paragraph: F. Cover Board: Soprema Sopraboard; 1/8-inch thick.
2. Existing pool pump house exterior walls, soffits and trims to be painted and standing seam metal roof to be painted.
  - a. Exterior Walls
    - i. Utilize painting spec section 099100/3.7A Exterior Paint Schedule – Cement Plaster
  - b. Standing Seam Metal Roofing
    - i. Primer: Tnemec Series 66 HB Epoxoline; 2.5-3.5 mils DFT.
    - ii. Finish Coat: Tnemec Series 1072 (satin finish) Fluoronar; 2.0-3.0 mils DFT
  - c. Colors to match Architect's sample.

#### **Pool:**

1. See attached sketch revising detail 12/W1.S1.0 reflecting new dimensions.

#### **Pool Cooling System:**

1. Connect to the twin 4-inch pre-insulated underground chilled water piping, extend to the Pool Equipment building equipment yard and connect to the new heat exchanger.
2. Provide new 8-inch piping and fittings as shown on the attached schematic SKCW-01 to integrate new heat exchanger in with the pool piping currently shown on the drawings. Piping to match the material specified for the pool piping, extend to the Pool Equipment building equipment yard and connect to the new heat exchanger as shown.
3. Provide a new 2,000,000 BTU shell and tube heat exchanger with a flow rate of 900 GPM and 8-inch pipe connections on the pool side and flow rate of 200 GPM and 4-inch pipe connections on the chilled water side. Fully insulate the heat exchanger, to be located outdoors in the pool equipment yard on a concrete pad, with closed cell cellular elastomeric or Foamglass insulation of sufficient thickness to prevent condensation and wrap in aluminum jacket.
4. Provide a new BMS panel in the existing Pool Equipment building with sufficient control points to achieve the indicated sequence of operation and connect to the new Fitness Building BMS system for full monitoring and control of the heat exchanger chilled water system. Provide two (2) 1-inch conduits



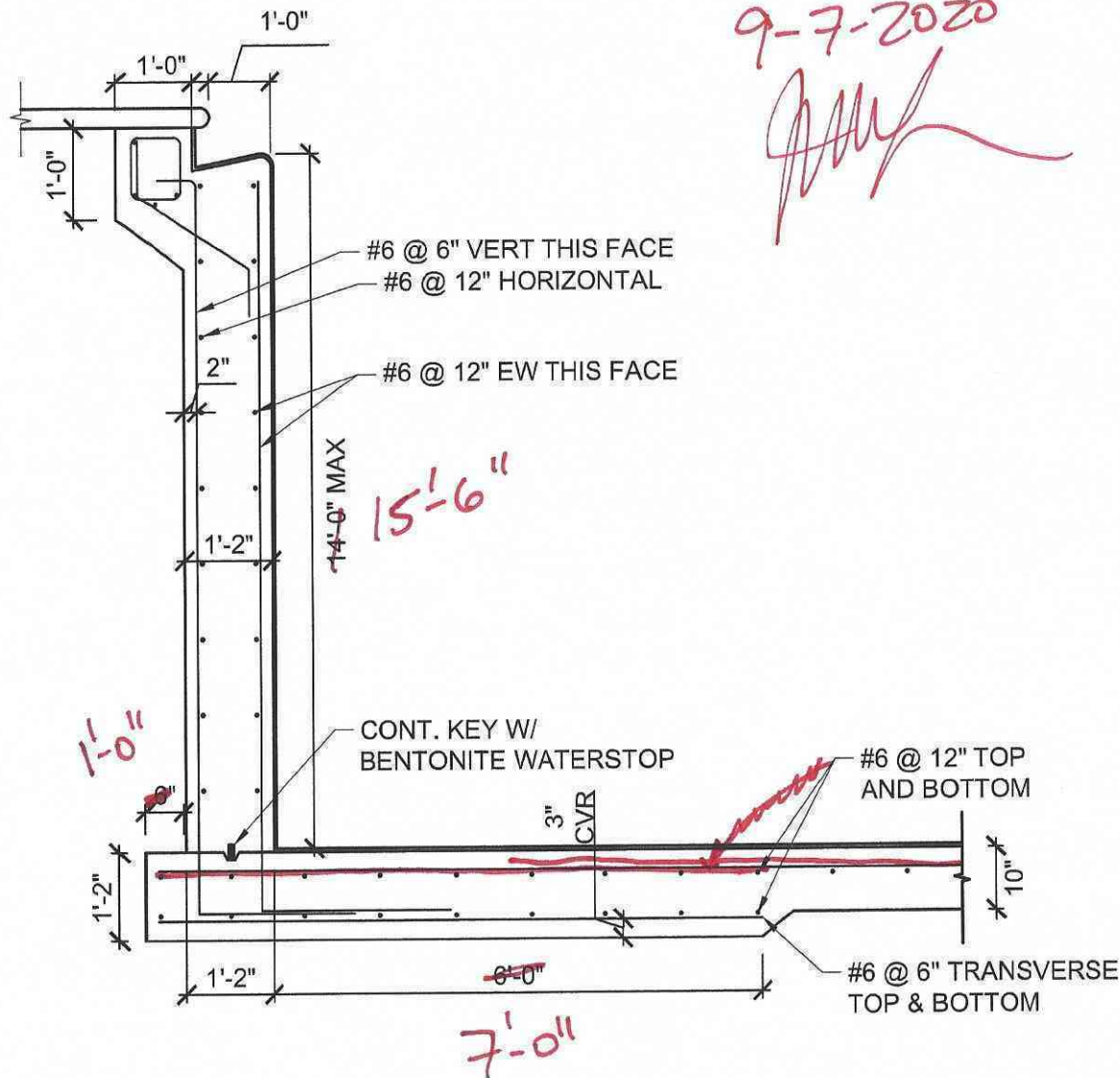
and two (2) site pull boxes for connection of the pool equipment building to the first-floor mechanical room 113 for interconnectivity of controls.

5. Provide a BTU meter on the chilled water side of the heat exchanger connected to the BMS. Provide a motorized chilled water control valve for capacity control on the chilled water side of the heat exchanger connected to the BMS. Provide all controls and controls end devices needed to achieve the indicated sequences of operations.
6. Provide two (2) 120 volt circuits and two (2) 3/4-inch conduits from the Pool Equipment building electrical panel out to the heat exchanger and to the BMS panel in the building. Provide data connection to the BMS panel in the Pool Equipment building for connection to the Fitness Building BMS system.

## **END OF ADDENDUM 2 NARRATIVE**

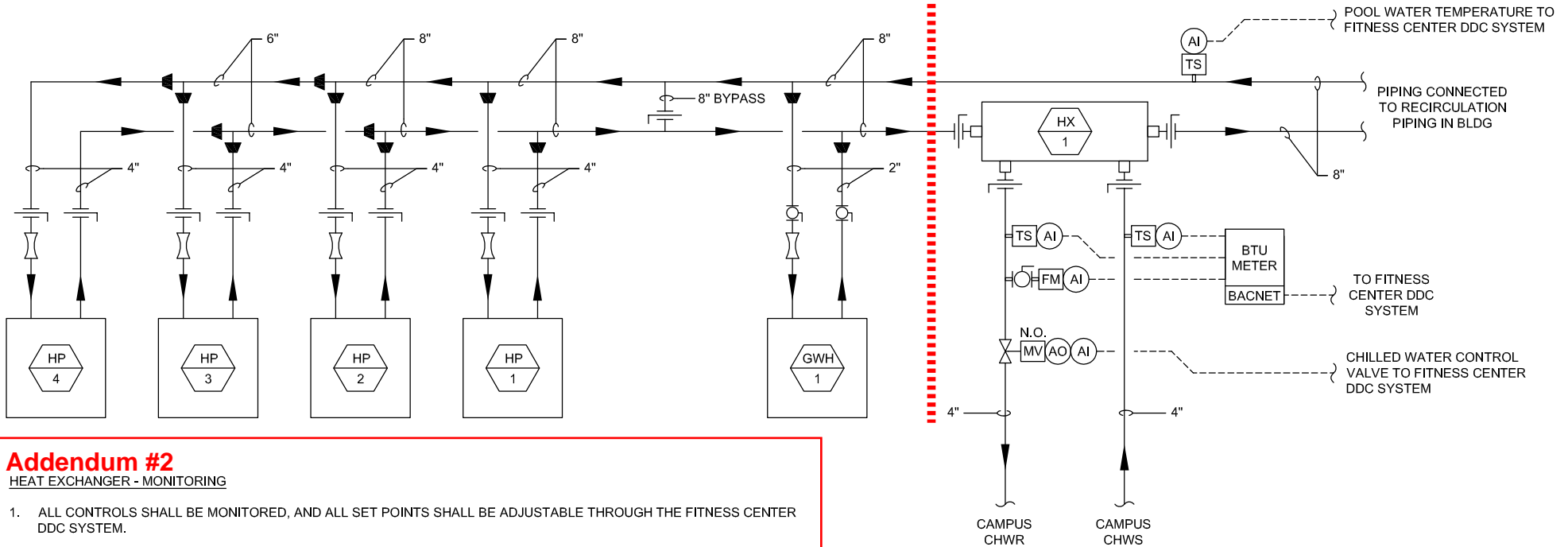
### **Attachments:**

- Detail 12/W1.S1.0
- Pool Chilled Water Schematic – SKCW-01



Currently shown on the Issue for  
Permit drawings W1.M3.0

Addendum #2



## Addendum #2

### HEAT EXCHANGER - MONITORING

1. ALL CONTROLS SHALL BE MONITORED, AND ALL SET POINTS SHALL BE ADJUSTABLE THROUGH THE FITNESS CENTER DDC SYSTEM.

### HEAT EXCHANGER - CONTROL POINTS

1. 2-WAY CONTROL VALVE POSITION (ANALOG OUTPUT - % OPEN)
  2. 2-WAY CONTROL VALVE FEEDBACK (ANALOG INPUT - % OPEN)
  3. POOL WATER TEMP (ANALOG INPUT - DEG F)
  4. BTU METER: HX CHW ENTERING WATER TEMP (ANALOG INPUT - DEG F)
  5. BTU METER: HX CHW LEAVING WATER TEMP (ANALOG INPUT - DEG F)
  6. BTU METER: HX CHW FLOW RATE (ANALOG INPUT - GPM)
- (BTU METER SHALL HAVE BACNET CARD FOR COMMUNICATION WITH DDC)

### HEAT EXCHANGER - CONTROL SEQUENCE

1. THE POOL WATER SHALL FLOW THROUGH THE HEAT EXCHANGER AT A CONSTANT RATE OF 800 GPM.
2. POOL EWT < 80 DEG F: THE CHW 2-WAY MODULATING VALVE SHALL BE 0% OPEN.
3. POOL EWT > 82 DEG F: THE CHW 2-WAY VALVE SHALL MODULATE THE CHILLED WATER FLOW TO MAINTAIN A CHILLED WATER RETURN TEMPERATURE OF 67 DEG F.



ERAU FITNESS COMPLEX  
SOF #00271  
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**SKCW-01**