ADDENDUM #3

Bid#16214 East Main Pump Station Improvements (11/16/2016)
(5 pages)

1. **Question/Response:**
Sheet #26: There are two new explosion proof motors (damper and garage door). Are these being provided by the electrical contractor or the mechanical contractor?

R: Unless stated otherwise, it is up to the General Contractor to determine divisions of sub-contractor scope items for the explosion proof motors. The garage door motor is a replacement of the existing motor and only shown on the electrical drawings. The damper motor is part of the "New Motor Operated Combination Free Air Intake Louver and Automated Controls" specified in Section 10200.

2. **Question/Response**:
Sheet #26: There's a note under the screen room label that states: All conduit in screen room to be PVC coated. On sheets 33 & 34, the diagrams and sections all say rigid galvanized steel conduit. Please confirm which is to be used?

R: All conduit in the screen room is to be PVC Coated.

3. **Question/Response**:
Sheet #31: On the proposed motor control center detail, there's a note stating that VFDs are to have 4-1/C #3/0 XLP-type use conductors. Is there a spec for these cables? Nothing is shown in section 16120 – Wire and Cable.

R: The XLP designation defines the industry standard for the wire insulation to be provided.

4. **Question/Response**:
Sheet #33: The diagram and section call out for a baseboard to be used to mount the disconnect switches. Is there a spec on this? What kind? Dimensions?

R: The explosion proof disconnect switches shall be tab mounted to stainless steel strut (eliminating the need for a baseboard).

5. **Question/Response**:
Sheet #34: The note in the lower right corner calls for all supporting devices to be stainless steel. The diagram and sections on the same page call out for galvanized steel strut. Please confirm which is to be used.

R: All electrical supporting devices in screen room shall be stainless steel including struts, strut supports and hardware.

6. **Question/Response**:
   Specifications reflect the use of water based bonding adhesive for membrane securement. I have not seen a project schedule but this material cannot be used when temperatures may dip below freezing at night. Most manufacturers discontinue sales of this material after October and do not recommend its use. The use of standard or low VOC bonding cement is recommended although they also have limitations during winter application.

   R: The project Duration is anticipated to be 12 months, This should allow the contractor to work during ambient conditions, the contractor shall use the bonding agent which best correlates with weather conditions at the time of installation.

7. **Question/Response**:
   A vapor barrier is referenced in the specs and on the roof plan but no material requirements are. I will assume a self-adhering vapor barrier based on my current understanding of roof deck construction.

   R: Self adhering vapor barrier is correct for this application.

8. **Question/Response**:
   Specs reference two layers of 2.2" iso with a total; however, the roof plan and in particular the Roof Drainage Plan shows a thickness to be 1-1/2" at the low point with a maximum thickness of 4-1/2" at the saddles. What is the architect's intent? R-25 average? R-25 minimum?

   R: R25 average insulation factor throughout the entire roof is correct.

   In addition the drainage plan is unworkable. If the deck is indeed dead level the triangle shape at each scupper location would still have no slope. Please note that if the entire insulation system needs to be fully tapered we would start at the wall where the scuppers are located and slope the insulation at the rate of 1/8" per foot, it is important to know the minimum R-value desired.

   R: An average insulation thickness of R25 is desired

9. **Question/Response**:
   The roof plan references removal of the mansard plywood. Is the mansard being demolished and not replaced? If so who is handling demo? If the mansard deck and roof is to be replaced, what is the new roof?

   R: The existing Mansard Backing and Substrate is to be replaced, it is up to the general Contractor top determine who will provide the Demolition.

10. Question/Response:

Notes on the roof plan indicate removal of wood blocking and installation of new. Is this to be done regardless of the existing wood blocking condition?

R: Yes all new blocking to allow for the installation of new parapet cap and raised roof mounted equipment.

11. Question/Response:

Currently the roof has 1/8"-1' tapered perlite insulation which varies in height from approximately 2 inches at the low side to 10 inches on the high. I will need clarification on the insulation package. The specs say 2 layers of 2.2" over the entire roof for an R-value of 25. The plans say a 1-1/2" starting thickness. If we install two 2.2" base layers then 1/8" per foot tapered iso we will be at a height of over 12" at the high side. This would result in lower than recommended flashing heights at these areas. If we go according to the plans and use the 1.5" starting height then the tapered we would be at 9-1/4" at these areas. This would result in a proper 8" flashing height. In addition to issues at the high side, if the 4.4" base layers are required, this will close off part of the existing scuppers at the low end of the roof.

R: The intent of the plan is to provide an average insulation factor of R25, the insulation may need to be and can be reduced and tapered at the scuppers to allow for positive drainage.

12. Question/Response:

Our core samples showed that the existing roofing has a 3/16 inch-to-the-foot tapered perlite insulation on it now. What slope of tapered insulation should we be figuring for on this project?

R: The roof insulation factor should be an average of R25, the preferred slope is 1/8" per foot or to allow for positive drainage at the scuppers.

13. Question/Response:

It is our understanding that the existing mansard roofing is to be removed along with all the plywood decking underneath. It currently has a wood shake on it. What type of roof are we supposed to be replacing it with?

R: The mansard shingle portion of the roof is not indicated to be removed, only the cap and vertical sheeting on the back side of the mansard are to be removed and replaced.

14. Question/Response:

Can the influent flow be directed to the channel closest to the side garage door. I feel like the other channel may be challenging to get to, with the size of the pumps I believe will be required for the 17 MGD in the spec.

R: The influent flow can be directed to the channel closest to the garage door; however, it is noted that the use of either channel for by-pass pumping must be fully coordinated with the Contractor's By-Pass Pumping Plan to allow for the required demolition and new equipment installation required under the contract.

15. Question/Response:

Can the wells be surcharged…and how much?

R: Lake County Operators will have to answer how much the wells can be surcharged after award of the project. The water level can be surcharged to a least the crown of the incoming 42" interceptor which is indicated on Drawing 19. Lake County has surcharged the incoming sewer higher than this elevation in conjunction with past by-pass pumping at the Round Lake Sanitary District Site.

16. Question/Response:

If we have to look at submersibles (I'm not sure the opening is large enough for the size of the submersible we may need), do you have electrical hook ups we could use?

R: As part of the Contractor's By-Pass Pumping Plan submersibles could be temporarily fed from the station electrical service providing other (existing) pumps are locked out as required so as to not overload the service. The Contractor is responsible for all such temporary electrical hook ups. The Contractor is also responsible for coordinating how such electrically powered by-pass pumping would be coordinated with the replacement of the electrical gear at the station service entrance.

17. Question/Response:

Can you provide the force main pressure we need to overcome on the discharge?

R: Static head at the existing pump centerline (without factoring in wet well (suction) level) is somewhere in the range of 17.7 psi and 18.5 psi (does not include dynamic head losses).

18. Question/Response:

With the homes across the way/ creek…I should assume that you want Sound Attenuated pumps?

R: The close proximity of residential housing is definitely a consideration for pump and or generator operation and acceptable sound levels. All local codes and ordinances are to be fully complied with.

19. Question/Response:

Plans 12 & 13 show the removal of the existing hydraulic lines to the operators on the cone valves; however no new lines are shown going back in. Please provide details or layouts of the new hydraulic lines to be installed.

R: Hydraulic hoses are to be routed from each hydraulic skid assembly located in the Control Room Alcove (one skid assemble per cone valve) to each cone valve. Follow cone valve hydraulic actuator provider's recommendation. Hoses are to be supported in the Pump Room Basement by Trapeze Supports and Trays for Electrical Conduits as shown on Drawing 32 (see note to this effect on Drawing 22).

20. Question/Response:

Are all switches in Screen Room to be rated for Class I, Div 1, Group D.

R: Yes. Change to EFDB type Selector switch in Lieu of SWD for Appleton, or equal