



**August 12, 2019**

**ADDENDUM NO. 2 TO SPECIFICATION NO. 1349S**  
**Pala LS Electrical Equipment Upgrade**

This addendum to the specifications is for the purpose of adding, clarifying, or deleting certain information to the construction drawings and project specifications as follows:

**MANDATORY PRE BID WALK THROUGH**

A 2<sup>nd</sup> mandatory pre-bid walk-through meeting was conducted on August 1, 2019 and 9:00am.

NOTE: Refer to EMWD's website to obtain the Pre Bid Walk-Through Sign-In Sheet.

**QUESTIONS & ANSWERS**

**Global Power Group, Inc.**

- Q1. Can all the temp cable being used for the temporary power be Temp Power cable instead of Thhn installed in conduit?
- A1. No.
- Q2. All this temp cable would be installed in cable bridges for protection.
- A2. No.
- Q3. On Sheet E-009 TCC-06 thru TCC-09 state 10-#12's, since this is for controls can this be 10-#18's instead?
- A3. No. Please bid using 10-#12's.
- Q4. Sheet C-006 shows electrical stub ups under the temporary ATS and MCC's. It appears on sheet E-005 all this equipment is fed from the overhead cable tray. Please clarify where the underground conduits are to terminate.
- A4. Please disregard conduits stub-ups shown in Sheet C-006 for temporary ATS and MCC. Temporary ATS and MCCs are fed from overhead.

**Mass Electric Construction Co.**

- Q1. Drawing E-008 shows a conduit running between an existing box and the New MCP. It has a note attached to it which states "Existing Controls Rerouted to New MCP". No other information is given and this conduit is not listed on the Conduit & Cable Schedule. Please provide conduit and cable sizing for conduit to be rerouted.
- A1. Use 2" conduit and 10 #14.
- Q2. Drawing C-001 General Note - Soils and Foundations note #5 States" all excavated material must be placed on plastic sheeting or as directed by owner until determined NOT to be contaminated". Who is responsible for testing for "NOT Contaminated" and what test or testes are to be performed? Who is responsible for the testing costs?
- A2. District would be responsible for testing and related expenses.
- Q3. Drawing E-006 Note #3 calls for the new cable tray installed during temporary installation to be removed. Will the Cable Tray support Piers CTs-1 & CTS-2 need to be removed also?
- A3. Yes, in Section 00100, it states that Contractor shall remove all temporary equipment, K-rail and temporary equipment concrete slabs when project construction is completed. Re-pave and restore all areas altered to prior conditions.
- Q4. Drawing E-025 Shows an 2" Water Line to be demolished. Please clarify if this line is supposed to be demolished as depicted or if this is a 2" Water Line that is supposed to be installed New. Additionally, please clarify where the 2" water line originated from.
- A4. The 2" water line is existing and active. This can be seen in sheets E-006 and E-005. District intends to keep this water line. A waterline with ¾" diameter copper pipe is required to tap to this pipe to install a hose bib at the heat pumps area as shown in sheet E-008. Copper pipe shall be plastic taped wrapped.
- Q5. Drawing E-025 shows a Sample Cabinet, Control Box, and additional piece of equipment installed before the sample cabinet being demolished. Contractor requesting clarification(s) of what is being removed. Are these 3 items being removed supposed to be the existing Cabinet and Junction Box as shown in Figure #12 & #13 in Appendix D photos?
- A5. Yes, refer to Sheet E-008 plan that indicates what is planned for that spot. Figure #12 & #13 in Appendix D photos identify equipment to be relocated. The equipment is to be relocated to allow space for new MCP and scum pump control panel.

- Q6. Specification SC-02.2 States “cable trays shall have slotted bottom and ventilated tray covers. Drawing E-011, cable tray system notes #1 through #6 all mention cable tray is to be ladder type tray. Please clarify if cable tray is to be supplied as ladder type or as slotted bottom cable tray.
- A6. Cable tray shall be ladder type tray inside the electrical room and slotted bottom with ventilated tray covers for the outdoor.
- Q7. Drawing E-006 shows the IDF/Demarc enclosure mounted outside the control building on the west wall. Per note #10 the IDF/Demarc enclosure is to be supplied as Cube-iT-Plus by Chatsworth Products. Upon talking with Chatsworth Products the Cube-iT-Plus enclosure are intended for use in indoor environmentally controlled environments. These enclosures are not intended to be mounted outside, in plenum space or in industrial environments. Please confirm the type of enclosure to be supplied and the location the enclosure is to be mounted?
- A7. The enclosure shall be located as shown on the drawing E-006. Enclosure shall be type NEMA 4X, suitable for outdoor.
- Q8. In regards to the response to Q&A #11 in Addendum #1 the bidders must know the requirements of the District’s permits under which they must perform. This is especially true if the Bidders are to be held responsible for any violations of those permits. Otherwise, a Bidder could inadvertently violate a permit through no fault of its own. Please reconsider and provide the permits for review.
- A8. District response will not change. Refer to Addendum 1 Q&A #11.
- Q9. Drawing E-008 shows conduit tags PX-05, PX-06, PX-07 running from ductbank (NW corner of building) into building and across ceiling over to existing Emg. Standby Generator. Drawing E-010 Cable & Conduit Schedule lists the referenced conduit tags which include the remarks “Also via existing wireway”. Please clarify if conduit tags PX-05, PX-06, PX-07 are to utilize new conduit or existing wireway.
- A9. Please provide new conduits.

**Dynalectric/Global Power Group, Inc.**

Q1. According to UL, a new control panel cannot re-use components from another panel and be listed from the factory.

A. If the re-used components ARE UL listed, they could be field installed.

Question 1A: Can the owner verify that the RTU and Air Vac Unit both contain only UL listed components.

B. Per spec section 16950-8, 105C, Factory testing is required prior to shipment.

Question 1B: If the RTU and Air Vac Units are actually UL listable, and are installed in the field, will the factory testing requirement be waived? ((To summarize this line of questioning, you cannot list a panel with used parts in it. You cannot ship a panel that is not UL listed (unless owner decides to field list). If you cannot factory witness test without those devices, there is an issue to resolve)).

A1. The Air Vac components is eliminated from scope. All of the RTU components are UL listed.

Contractor shall ask vendor to conduct applicable factory test the MCP before shipping and field test after delivery and installation.

Q2. Is the new MCP going to be in an air conditioned space? If yes, are space heaters and air conditioning required per spec section 16950 – 2.04 – A – 1 & 16950 – 2.04 – B?

A2. No, the new HVAC only provide cooling to VFDs, not the whole room.

Q3. Please provide drawings or other information on the existing Air Vac Unit.

A3. See response to Q1.

Q4. Who supplies the radio transceiver, and is it expected to be in the new MCP?

A4. This work will be performed by EMWD.

Q5. Where is the network switch to be located? If not in the MCP, who supplies it?

A5. Network switch is in the RTU cabinet. The contractor will supply the network switch.

Q6. A panel listed as 508A cannot possess any devices that are rated for hazardous locations. Will it be acceptable to house any IS barriers, or any other hazardous devices, within a smaller box nipped into the MCP?

A6. That would be acceptable. The building is located in non-hazardous area.


- Q7. Please specify the enclosure type required to the MCP within the space. I.E. NEMA 4X, 12, or 7.
- A7. NEMA 12
- Q8. Please identify the boundaries of the hazardous locations on the interior and exterior.
- A8. The building is located in non-hazardous area. The wet well is in a hazardous area.
- Q9. Please identify where the Ethernet switch is located.
- A9. See response to Q5.
- Q10. Please provide a list of all new instruments that are to be provided by the contractor.
- A10. Refer to Section 00100 - Special Conditions, SC-02 for items that will be provided by the Contractor.
- Q11. Who will be performing the configuration/programming on the RTU?
- A11. District will perform configuration/programming of the RTU.

#### **Square D/Schneider Electric**

- Q1. Reference specification section 16480, 2.02.B.1 and 2.02.I.2 indicates "Switchboards shall be front accessible with fixed individually mounted or drawout mounted main protective devices and **fixed individually mounted or panel mounted bolt-on protective devices.**" Sheet E-003 shows drawout main and feeder breakers for the new 480V switchgear and distribution board. The standards referenced in 16480, 1.03.A are for UL489 and UL891 switchboards and not switchgear. The smallest drawout breaker frame available in the industry is 800AF and since UL891 switchboard construction is specified, is it acceptable to provide either drawout or I-Line plug on construction which provides similar benefits with the ratings indicated on the single line diagram. I-Line plug on construction has been industry proven over 50 year for industrial applications including water and wastewater facilities.
- A1. Provide drawout main and feeder breakers for the new 480V switchgear and distribution board per E-003 for maintenance purpose.
- Q2. Reference specification section 16480, 2.02.H.6 indicates Nema 3R enclosures shall be white (60-70) gloss on all surfaces. Please advise if ANSI medium light grey paint as specified in 2.02.H.5 is acceptable.
- A2. Please provide per specification 16480. ANSI medium light grey paint as specified in 2.02.H.5 is for NEMA 1.

- Q3. Reference specification section 16480, 2.04.A.5 indicates breakers shall be rated 65kAIC at 600V. Sheet E-003 calls for 65kAIC @ 480V. Please confirm breakers rated 65kAIC @ 480V are acceptable.
- A3. Provide breakers per specification 16480, section 2.04.A.5. 480V on Drawing E-003 is intended to indicate equipment operating voltage.
- Q4. Reference section 16160, 2.11 that a harmonic distortion study is to be provided to determine the characteristics and ratings of individual line reactors, passive filters, isolation transformers, 12 pulse VFDs, 18 pulse VFDs, or other suppression equipment necessary to achieve the specified distortion limits. Unless indicated otherwise in the specific project VFD requirements, active filters or active front end VFDs will not be allowed for suppression of harmonic distortion. Please clarify if the intent of the optional active harmonic filter shown on sheet E-003 and specified in the supplemental conditions, SC-2.2, is to allow other forms of harmonic suppression including active harmonic filters and active front end drives which can reduce the VFD footprint significantly as compared to other means of suppression, especially 18 pulse drives. Due to the specific space requirements and constraints in the existing electrical room, either active harmonic filtration or active front end makes the most efficient use of space, is the most energy efficient and still meets the intent of harmonic suppression per IEEE 519-92 and as specified by the district. Please note the VFD cabinets that include RVSS bypass may be slightly larger than shown on sheet E-013 which again makes space a concern. The existing site conditions do show harmonic filters are currently installed for at least two of the existing VFDs.
- A4. The bid is to include the cost of the active harmonic filter per scope of work on Special Condition 00100, SC-02. Contractor to provide harmonic distortion study per specification 16160. Active harmonic filter might not be required if the harmonic distortion study indicates that it meets harmonic suppression requirement.
- Q5. Reference sheet E-03, please clarify if the (2) VFDs for HP-1 and HP-2 are to be provided by driven equipment supplier.
- A5. There are no VFD required for HP-1 and HP-2 (Heat Pumps). The label indicate air conditioners that provide cooling to the VFDs.

Eastern Municipal Water District



for Paul D. Jones II, P.E.  
General Manager

PE: GB  
PM: MS  
DFE: BXM  
for DE: BXM

PDJ:GB:ta:mf:ae