

September 30, 2016

Letter No. 01

Project: DTFAWN-16-R-01814 – Major Mechanical Modernization, Palmdale ZLA

RE: Questions

1. Please clarify construction schedule. Standard form 1442, item 11 states 45 calendar days and document DTFAWN, Part II - Section I, Paragraph 3.2.2.3-71 states 465 days. **465 days is correct.**
2. Please confirm Fire Detection/Alarm and Security are to be included by the electrical contractor, all other low voltage systems (tele/data, fiber, refrigerant detection) will be by others with the electrical contractor providing conduit, pull string and boxes only per plans. **Security work is to be included by prime who is required to subcontract out to the SSDI Contractor. See requirements in specifications and drawing notes. Regarding the installation of conduit and wiring, per Specification 01 11 00, Section 1.5B, General Contractor decides the division of work. All conduit and wiring shall be installed by qualified persons per plans and specifications. It is up to the General Contractor to decide if one subcontractor installs the conduit and a different subcontractor installs the wiring or if they are installed by the same subcontractor.**
3. Please provide contact information for the FAA's national Honeywell security contractor. **Honeywell National Dispatch Office (855) 801-6191.**
4. Transformer TR-CT is noted as 15KVA on sheet E106 and 45KVA on sheet E405; please confirm this is to be a 15KVA transformer. **Provide 15kVA transformer per Drawing E106. Note: Demolish existing concrete sidewalk at existing transformer and provide new structural concrete pad 30" x 36" x 6" deep with # 4 bars at 8" on center each way (2" clear from edges).**
5. Please confirm transformer TR-CH on sheet E206 should be labeled transformer TR-CT as shown on sheets E106 & E405. **Yes, transformer on E206 should be labeled TR-CT as shown on E106 and E405.**
6. Sheet E104 note #7 states feeder to remain to refeed replaced panel E-101-HA however sheet E403 note #4 calls out a new feeder to panel E-101-HA; please confirm the existing feeder is to reused to feed the new panel. **Provide new feeder conductors and conduit from UPS to replacement panel.**
7. If the contractor is awarded this project, will it restrict them in any way of being awarded

the major mechanical in Oakland? **The FAA will not provide restrictions. This is a completely separate project with different specifications.**

8. Can you please provide a copy of the site visit attendee list? See the solicitation announcements with the attachments at www.faaco.faa.gov
9. Is it possible to get an additional 2 weeks added to the proposal due date?
AMENDMENT 002 TO EXTEND TE DUE DATE FOR PROPOSALS TO TUESDAY, OCTOBER 18, 2016 AT 1:00 P.M. PST
10. E300 - Note 9 & E301 - Note 4: Please provide manufacturer and model number of speakers to be replaced. **Bogen MB8TSL(VR)**
11. Please provide as-built drawings showing the existing conduit path to be used to feed new equipment in the cooling tower yard. **Record drawings show general locations; see reference (record) drawings WP-D-501-41474-CTR-E101, WP-D-501-41474-CTR-E105, WP-D-501-41474-CTR-E106, and WP-D-501-41474-CTR-E110.**
12. Specification Section 262923 paragraph 3.2 references a harmonic analysis study; additionally sheet E106 -notes 17 & 18, sheet E107 - note 7, and sheet E108 - note 5 reference harmonic analysis for specific VFD's. In order to perform the analysis will you please clarify the following: 1) What duration will data be required to be collected to perform the analysis (1 week, 1 month)? Are only the VFD's with the specific harmonic analysis note to be included in the study or all VFD's shown on the single line diagrams? Will the FAA provide protection of energized equipment and a clear work space while the study is taking place (the recording devices are required to be out in open space undisturbed and technicians will need access to the work area)? What is the THD/TDD standard that needs to be met for the study? **Harmonic Analysis indicated in Specification Section 26 29 23- 3.2, E106 Sheet Notes 17 and 18, E107 Sheet Note 7, and E108 Sheet Note 5 is a calculation analysis (not physical metering of the equipment after installation) to be provided by the selected VFD vendor prior to approval and shipment of all VFDs to the project to ensure that harmonics levels of the system will be below the required levels based on actual VFDs and filters selected for installation. Refer to Specification Section 26 29 23-2.3 for line conditioning and filtering requirements.**
13. Specifications for the VFD's are included in Division 26 however the mechanical schedules on sheet M601 include VFD's; please confirm VFD's and harmonic filters will be provided and installed by the mechanical contractor. **Refer to M603 Power Connection Schedule Note 1: "VFDs not supplied by the manufacturer of the unit shall be supplied under Division 26." Any required harmonic filters shall be provided under Division 26.**
14. Sheet E401, note 5 - Please provide quantity & size of conduits to be extended to the relocated control panel. **For power, 2#12AWG + 1#12 GND in 3/4" C for each relocated control panel. For control conduits and wire, this will be determined by Controls**

Contractor controls diagrams submittal to meet Specification Section 23 09 00 and controls requirements on Mechanical Drawings.

15. Sheet E402, note 2 - Please provide the required dimensions of the new Telecom Box as well as the size conduit to be extended to the new box. **Telecom box and conduit to match existing, approximately 24"W x 36"H x 12"D. Coordinate with FAA for exact size of pull box and conduit.**
16. Sheet E402, note 8 - Please provide quantity & size of conduits to be extended to the relocated control panel. **2#12AWG + 1#12 GND in 3/4"C for power. One 3/4"C with two LAN cables (control). One 3/4"C with three LAN cables (control). Also, one of the conduits has RG cables in them that can be abandoned.**
17. Note 6 on sheet E204 states "Existing panelboard to be replaced. Remove existing conduit and wiring back to source" however note 8 on sheet E107 states to "reconnect existing conduit and wire to new panelboard". Please confirm existing conduit and wire will be reconnected to the new panelboard. **Provide new feeder conductors and conduit from UPS to replacement panel.**
18. Sheet E204 shows a flexible conduit feeding panel "unnamed load center" and note 12 states for the flexible conduit to be replaced by RGS conduit. Sheet E102 shows panel "unnamed load center" to be demolished. Please clarify. **"Unnamed Load Center" is being demolished and replaced with new Panel B-B101 at a different location. The design intent is to replace the flexible conduit portion of this branch circuit feed to the outside with rigid conduit and extend it to new Panel B-B101 (location shown on Drawing E403).**
19. Specifications appear to require a Harmonic Analysis Study of the VFD's prior to approval and shipment to the project (paragraph 1.5-E). However, section 3.2 seems to refer to an analysis to be done post installation. Which is the appropriate interpretation of the spec intent? If the study is to be done pre-installation, the manufacturer requires certain information about the existing electrical equipment parameters from the Owner/Owner Rep. **Harmonic Analysis is to be provided by the selected VFD vendor prior to approval and shipment of VFDs to the project to ensure that harmonics levels of the system will be below the required levels based on actual VFDs and filters selected for installation. Coordinate with FAA for information about the operational scenarios of their Mechanical Plant to complete the analysis.**
20. Fireproofing called out on A202 note 9 says "infill shall require a firestop engineering judgement/ firestop custom detail by a fire protection engineer". Will a UL numbered system for service penetrations be accepted for applicable penetrations? **UL fire rated assemblies will be accepted to smoke and firestop applicable penetrations. The opening identified in sheet note 9 has numerous pipes and conduits passing through the opening and will likely require a Firestop Engineering Judgment/Firestop Custom Detail by a fire protection engineer. Refer to Specification 07 84 13 1.2.C.2 and 07 84**

13 1.2.D.1. Also, Reference Drawing A201. General Sheet Note B requires Contractor to smoke and fire stop openings in fire rated walls and ceilings. On the north wall of Room B119, there is an existing opening approximately 24” wide by 14” high with a wireway and numerous conduits and flex conduits going through it that requires an engineering judgment firestop.

21. Sheet A112 note 10 states “Temporarily relocate furniture to allow for the work to the automation wing basement and first floor. Coord w/ COR exact location.” To accurately estimate this we need the location for storage of these items. Further, these items must be removed from the work area to prevent damage and to allow the work to progress appropriately. Further, is there any COMM/Automation spare parts and supplies in these areas that they will not allow to be relocated and that they need to maintain access to? **Refer to Sheet Note 8/A114 and Sheet Note 1/A115 for location of storage within the Automation Wing Basement and First Floor. FAA to identify any limitations to parts or supplies that cannot be relocated or that needs access maintained.**
22. The plans and specifications call out a Class II system. The system we will install on the temp equipment will meet this and UL 96 & 96a. For the permanent system on the new equipment do you want pointed terminals? Current UL calls for blunt. Further, Class II allows for aluminum conductors and mechanical connections, does the FAA want tinned copper and CAD welded connections? **Per Specification Section 26 41 13-2.2B(1), provide rounded “bullet” tip air terminals. Conductors shall be Class II and compatible with the material they are installed on, except that aluminum conductors are only allowed on aluminum surfaces per FAA-STD-019e. Provide bi-metallic connectors when connecting to dissimilar metals. Connections between conductors shall be made by parallel exothermic welds, and connections to ground rods shall be by exothermic welds. Class 2 down conductors shall be spliced to 4/0 conductors prior to entering the ground at least 18” above ground level. Connections of bonding conductors to metallic objects shall be made by exothermic welds where possible; where it is not possible, UL approved bolted pressure connectors may be used. Per Specification 26 41 13-3.2B, installation shall comply with UL 96 and UL 96A. In addition, the installation shall comply with FAA-STD-019e (available online).**
23. Can we request an additional 14-21 days to complete this proposal following the answering of these questions? This is due to the time that it takes the major manufacturers to provide their pricing. **The FAA is not granting any extensions as this time.**
24. Relating to the deductive alternate, shall the contractor include performing the Ultrasonic testing of the existing 12in Water Mains or is this going to be facilitated by the FAA? **Contractor shall only be responsible for providing access (excavation etc.) to the piping for testing. Ultrasonic testing shall be facilitated by the FAA. Contractor shall ensure that their work to be performed is closely coordinated with the FAA.**
25. Will the contractor be able to use the gate for construction access of the site? Will we be required to provide security at this gate as well? **This question was clarified by E-Corps to mean the gates at the Staging Area. The west gate of the Staging Area**

shall not be used. The south gate of the Staging Area is usually closed but unlocked and accessible during the day, and it is locked up by Security at 7:00 p.m. and reopened at 5:00 a.m. every day. The south gate can be used by the Contractor for access into the Staging Area. Regarding Security, Contractor is responsible to secure Contractor's material and equipment, but it is not required for the Contractor to provide security personnel. Contractor shall provide badgedescorts for non-badged personnel in accordance with Drawing G005 Note C.3.

26. During the abatement work it is understood that the contractor will only be responsible for personnel air monitoring and the FAA will provide Area Monitoring. Please confirm. **This is correct. Refer to Specification 02 82 00 1.8.B/1.9/3.1.B/3.1.E.**
27. A number of "Risk Mitigation Plans" are called out on the drawings as being required. Can the FAA provide a sample of what is required in each of these so we can anticipate the level of effort each will take? **An example of a risk mitigation plan will be posted with this amendment. Refer General Sheet Note D on A111 for minimum requirements of certain Risk Mitigation Plans.**
28. Sheet A114 Note 8. Where will all relocated equipment be move to? Do we also plan on replacing equipment in the room? **Per Note 8/A114, furniture from B134 will be temporarily stored in Room 12A. Per Sheet Note 5/A204, at completion of work within B134, relocated furniture from B134 will be returned to B134. There is no equipment replacement in 12A.**
29. Does the temporary cooling equipment need to be fenced in? **Per temporary equipment requirement 9 on M005, 8 foot tall chain link fencing shall be provided around the temporary cooling tower yard.**
30. Sheet M005 Note 8 - States to provide design drawings. Please define the engineering responsibility on the part of the general contractor to provide calculations, design drawings, stamps, etc. for the temporary condenser water piping and cooling towers. **Regarding Note 8, Contractor is required to provide coordination drawings that indicate the layout intent of the temporary yard as well as connections to the permanent system within the plant. Concrete foundations for cooling towers and pumps are shown on Drawing S103 and are based on manufacturer listed on Drawing M601; these foundations will not require design unless different manufacturers are used. Notes 11 and 12 on Drawing M005 require design of anchorage (into the foundations) of cooling towers and pumps; Contractor shall provide stamped engineering design for anchorage of equipment.**
31. Sheet M005 Note 14 says to insulate and heat trace pumps and piping. Please confirm we are to insulate temporary condenser water piping. **Temporary condenser water pumps and piping shall not be insulated nor heat traced. Disregard note 14 on Sheet M005.**

32. Sheet M005 Note 14 says to insulate and heat trace pumps and piping. Please confirm we are to heat trace the condenser water. If yes, please provide specifications for heat tracing required along with temporary power requirements. **Temporary condenser water pumps and piping shall not be insulated nor heat traced. Disregard note 14 on Sheet M005.**
33. Spec Section 23 31 13 Metal Ducts Part 3 Execution. 3.8 DUCT CLEANING A. Clean duct system(s) before testing, adjusting and balancing. There are no notes on the drawings to clean the duct work. Please clarify what duct system and which portion of each system is to be cleaned. **All new ductwork shall be cleaned as well as any existing ductwork on which new work is performed.**
34. 23 07 19 Insulation Schedule Part 3 EXECUTION 3.16 OUTDOOR, ABOVEGROUND PIPING INSULATION Please confirm that the exterior above ground Condenser Water is to insulate. It is currently not insulated. If it is to insulate, is there an acceptable alternate material to Cellular Foam Glass that is acceptable—like urethane? **Per 23 07 19 outdoor, aboveground condenser water piping shall be insulated. The only acceptable insulation is 1-1/2 inch thick cellular glass insulation.**
35. Seismic Scope. Are we to upgrade seismic in areas of the building that we are working in or the entire building? **The seismic design is only for new systems within the work area unless otherwise noted as existing systems to be upgraded within the area of work; for example, Drawing M201 and M202 require new and existing pipe in the areas shown on these drawings to be braced.**
36. Please confirm if the FAA or the contractor is responsible for to contract for the Commissioning Agent. If the FAA is separately providing the CxA, please identify this firm. **The FAA is responsible for the Commissioning Process, though the Commissioning Agent will be provided by Jacobs Engineering.**
37. Can Site Superintendent, Safety Manager or QC Manager perform multiple roles for this project or are we required to have 3 different people on site for this work? **Reference Specification 01 31 00, Section 1.5A: “For this job, The SSHO (Site Safety and Health Officer) and QC (Quality Control) officer positions could be held by one or more qualified workers other than the superintendent or foreman, as designated by Contractor’s management.” Therefore, the Superintendent shall not carry the roles of quality control manager and safety and health officer.**
38. How many CRAC units can be taken out of service at any time during replacement? **Per note 1 on M204 units shall be replaced one at a time, therefore only one unit may be out of service at any given time.**
39. Are there any hold points that will dictate the contractor’s schedule? Such as, all abatement must be completed before any other activities, etc. **The asbestos work shall be scheduled so that asbestos materials will not be disturbed during construction; therefore, in areas**

with demolition, obviously the asbestos work shall be accomplished before other activities. Although there is no stipulation that all asbestos work shall be completed before other work, Contractor shall be aware of the following: Per specification 02 82 00, Section 3.1I, there is an asbestos work stoppage for any fiber counts outside containment over 0.02 fibers per cc above baseline. Construction work and construction foot traffic can affect the fiber counts outside containment, causing a possible high reading since all fibers meeting the size criteria are counted during air monitoring. Contractor shall coordinate construction work around asbestos abatement work accordingly so that there are no asbestos work stoppages. Otherwise, there are no additional hold points other than construction sequence requirements shown on various Drawings.

40. Will CAD drawings be made available to the contractor? **FAA can provide CAD drawings to the contractor but it does not relieve the Contractor from verifying all dimensions in the field.**
41. Spec Section 02 82 00 paragraph 1.4 required Pre-Bid items. What items are required to be turned in during bidding phase for the abatement contractor? It states in the solicitation information to provide subcontractor pre-qual info however there are further items required in the specifications. Please clarify. Also is this an evaluation criteria for award on this project? **The solicitation, specifically, Sections L and M define the items that need to be submitted with the proposal.**
42. Please provide contact information for the facility Security Contractor. **Honeywell National Dispatch Office (855) 801-6191.**
43. Please provide contact information for the facility Fire Alarm Contractor. **Specification 28 31 00, Section 1.8A requires a factory-authorized installer to perform work of the fire alarm section. The factory-authorized installer is Johnson Controls; contact information is Evan Schlackman of Johnson Controls, Inc., 5770 Warland Drive, Suite A, Cypress, CA 90630, Tell (562) 343-3374, Fax : 562-799-3621. Another possible contact is Tim Leonard of Johnson Controls, tel. 562-594-3229.**
44. Has it been confirmed that there are available breakers for the temporary units? **If the question is regarding the temporary cooling tower units, refer to Project Drawing E103.**