

ADDENDUM NO. 5

(IFB-20-HHL-022)

Pulehunui Wastewater System

RESPONSE TO QUESTIONS

No.	Question	DHHL Response
1	Spec item 2.3.D, the last sentence on the page calls out that the diffuser ... "shall be fully capable of operating under continuous or intermittent conditions and shall be designed with check valve capabilities to prevent entry of mixed liquor into the diffuser unit or air piping on air shutdown or interruption of air supply."	{PHASE B HAS BEEN DELETED.} No diffusers will be required for remaining phases.
2	Request for additional chemical make up information for the Digested Sludge and Reclaimed Wastewater in these tanks, anticipated Ph levels, etc. .	{PHASE B HAS BEEN DELETED.} No steel storage tanks required in remaining phases.
3	Our pipe suppliers have notified me that 15" ductile iron pipe does not exist. The plans call for 15" DI for the horizontal drilling sections of the 15" gravity sewer line. Please advise on which substitute material we should be bidding on.	Error in the call outs. Horizontal drilling sections of the gravity sewer is 18" fusible C905 PVC fusible PVC, DR 18
4	Please postpone the bid date by 3-weeks.	The bid date has been extended to April 30, 2020
5	Reference Sheet CA1-6 and MA1-1. Is the size of the sewerline inlet to the North Pump Station 15" dia. or 18" dia. ? Sheet CA1-6 shows 15" diameter and Sheet MA1-1 shows 18" diameter.	The size of the sewer inlet to the North pump Station is 18" dia.
6	Is the Contractor allowed to work on multiple phases concurrently? Or the Contractor shall complete each phase before it can start the next phase?	The Contractor is allowed to work on multiple phases concurrently.
7	There were two spec sections "11261 Davit Cranes" and "11261 Stationary Davit Cranes." Which is correct?	Please ignore Section 11261 Stationary Davit Crane.
8	There was spec section "11210 Pumps (General)" included in the RFP documents, however it was not listed on the Table of Contents. Is the intent to include spec section 11210 Pumps (General)?	Spec section 11210 Pumps (General) was inadvertently omitted from the Table of Contents

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No.	Question	DHHL Response
9	CA3-11, Sta. 22+59.58; please clarify length of restrained pipe. 80' or 120'?	Restraints for 10" force main is 60' on each side of bend.
10	On Sheet MA1-3, the tag (marked 10) for the vertical pipe appears to be in error. Please clarify, what is the length of the pipe?	Length identified in Delta 1 Construction Drawings
11	On Sheet MA1-4, the tag (marked 25) for the ARV vertical pipe appears to be in error. Please clarify, what is the length of the pipe?	Length identified in Delta 1 Construction Drawings
12	On Sheet MA1-1, the tag (marked 4), surge release line back to wet well) for the horizontal pipe appears to be in error. Please clarify, what is the length of the pipe?	Length identified in Delta 1 Construction Drawings
13	On Sheet MA1-4, the tag (marked 4) for the surge relief vertical pipe appears to be in error. Please clarify, what is the length of the pipe?	Length identified in Delta 1 Construction Drawings
14	Reference Specification Section 11221/2.4/K (page 8), Access Hatch Covers for Submersible Non-Clog Pumps. The specification calls for all-steel construction, H-20 vehicular loading. This does not match what is shown on the drawings. Which is correct, the specifications or drawings?	All hatches are to be constructed out of aluminum, 300 psf load rating.
15	What the basis of design manufacturer and model number for the aluminum hatches shown on MA1-2, MA4-1 and MB-14?	The design manufacturer is Halliday Channel Frame-Series W.
16	In the North Pump Station, is the pump discharge piping for the future pump required? What are the quantities of the pump discharge 8x6 reducer (no. 9), the vertical pipe and pipe supports on Sheet MA1-3, two or three	The piping for the future pump will end at the ¼ bend in the wet well. There will be two (2) 8x6 reducer (No. 9).
17	Please provide basis-for-bid foundations drawings for the Aerobic Digester tank and R-1 Water Reservoir.	{PHASE B HAS BEEN DELETED.} No digester or reservoir required in remaining phases.
18	Sheet CA4-6; 4" Force Main and Bid Item A4-8; Please clarify total length of pipe as our takeoff quantity measures 60'	4" Force main is 310 linear feet. Amendment 4 the new Bid Item is A4-7.
19	Referencing Sheet CB-4; in what bid item the 10'x4' CRM Overflow Weir be paid under?	{PHASE B HAS BEEN DELETED.} No overflow weir required in remaining phases.
20	Referencing Sheet CB-18; in what bid item the SAT Headwalls be paid under?	{PHASE B HAS BEEN DELETED.} No SAT headwalls required in remaining phases.
21	Referencing Sheet CB-6, please provide CMU wall detail.	{PHASE B HAS BEEN DELETED.} No CMU walls required in remaining phases.

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No.	Question	DHHL Response
22	Referencing Sheet CB-6, in what bid item the CMU wall be paid under?	{PHASE B HAS BEEN DELETED.} No CMU walls required in remaining phases.
23	Drawing MB-14 says that the submersible non-clog pump, tag no. P-1200A/B has a flow of 333 gpm @ 28 ft TDH. When you go to the P&ID PB-10, it says the flow is 120gpm. Which is correct?	{PHASE B HAS BEEN DELETED.}
24	On drawings PB-9 and GB-3, the refrigerated sampler tag no. is SMP-0904 (effluent sampler). However, drawing MB-10 shows the tag no. is SMP-0902 and spec section 11052 Automatic Refrigerated Sampler shows tag no. SP-0950 (after UV units, R-1 water). Which is correct?	{PHASE B HAS BEEN DELETED.}
25	Per spec section 11860 Blowers, Positive Displacement, it states: "...Three (3) blowers shall be provided. One (1) blower shall service the aerobic digester system, and one (1) blower shall be a standby unit." This equates to two (2). P&ID drawing PB-7 shows two (2) blowers B-1001A/ B-1001B. Drawing MB-5 shows two (2) blowers, one (1) is future blower . Please confirm desired quantity.	{PHASE B HAS BEEN DELETED.}
26	Per drawing PB-7 the blower duty is 300 scfm, 25 hp, but per spec section 11860 Blowers, Positive Displacement, it says the blower is 20 hp and 291 cfm. Which is correct?	{PHASE B HAS BEEN DELETED.}
27	Per spec section 11334 Sludge Dewatering Screw Press, 2.6 AIR COMPRESSOR (to be provided by Contractor). However, on P&ID drawing PB-8, it has an asterisk that says that COMP-1100 Portable Compressor *supplied as screw press package. Please clarify who is to supply the portable compressor. Is it a part of the screw press package or supplied separately by the General Contractor?	{PHASE B HAS BEEN DELETED.}
28	Specs SECTION 11231-AIR DIFFUSERS, PART 2 PRODUCTS, 2.2 DROP PIPE AND MANIFOLD, B. Manifold: "All submerged manifolds and header components shall be schedule 40 PVC." Sheet MB-5 shows submerged horizontal 4" Air manifold section as Sch 10 SST. Please clarify if air manifold is Schedule 40 PVC or Schedule 10 SST	{PHASE B HAS BEEN DELETED.}
29	Sheet MB-5 Aerobic Digester: Question #1 - What size is the air distribution header pipe? Question #2 - What size is the air diffuser pipe?	{PHASE B HAS BEEN DELETED.}

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30	Sheet MB-7, Detail 3/MB-7: Shows 4" stainless steel manifold air piping centerline dimension at 12" off the aerobic digester tank floor. Our understanding is the diffuser manufacturer's stainless steel air diffuser laterals are installed on saddles mounted to the underside of the headers. Question #1- Is the diffuser manufacturer providing the pipe supports for 4" air manifold horizontal section? Distribution headers? Air diff users? Question #2 - If diffuser manufacturer is providing the pipe supports, the listed manufacturer, Environmental Dynamics Inc.'s web site doesn't appear to provide pipe support information for the 4" air manifold, distribution header, or air diffusers. Can diffuser manufacturer provide manifold, header, and diffuser pipe support dimensioned drawings and other pertinent information necessary for tank manufacturer to determine how the various pipe supports are to be best secured to the digester tank floor?	{PHASE B HAS BEEN DELETED.}
31	Question #3 - If diffuser manufacturer is not providing pipe supports for the air manifold, header, and diffusers is this responsibility of tank manufacturer?	{PHASE B HAS BEEN DELETED.}
32	Sheet EAI-8, EA4-7, and presumably EB-3.3 (via detail on sheet EB-3.2) reflects varying responsibilities surrounding who furnishes and installs the radio antenna, antenna cable, and all SCADA/PLC/RTU devices which is in conflict with Division 16975 specifications which denotes the Contractor is responsible for furnishing and installing those devices and appurtenances. Please confirm the intent is for the Contractor to furnish and install the radio antenna, antenna cable, and all SCADA/PLC/RTU devices and appurtenances as required in Division 16975 specifications and that DWS shall perform all field wiring terminations and programming within the \$CADA cabinet . Confirm this is typical for all 3 sites (North, South, and Regional)	Contractor to furnish. County not involved with project at this time.
33	Please confirm contractor shall furnish and install instrumentation cabling (e.g. contact closure 2 wire or 4-20 mA) for all 3 sites (North, South, and Regional). If possible please provide some guidance via additional information as to how many PLC 1/0 points and types of devices inside the enclosure that are to be connected.	Yes, pending
34	Specification section 13441 "Control Loop Descriptions" 1.1(8)(1) & (2) refer to Sections 13400 and 13460. These sections are not included in the IFB package. Are they required to be included for reference purposes? Or can the language referencing these sections be deleted?	Disregard reference

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No.	Question	DHHL Response
35	Specification section 13441"Control Loop Descriptions" 1.3(A)(2) denotes programming of PLCs shall be by the vendor which appears to contradict Division 16975-3.3(8) which denotes "the PLC will be programmed according to the logic diagram by the DWS". Please confirm programming shall be by DWS. Alternatively, if the Contractor is responsible for programming, please specify those logic diagrams or provide direction that programming should be performed by the contractor in accordance with control loops specific in Div. 13441.	County not involved at this point. Phase B has been canceled.
36	Sheet EA1-4 denotes all equipment shall be Square Dor Cutler Hammer, however these manufacturers cannot furnish all components of the complete engineered system. Please confirm it is acceptable to utilize alternate manufacturers to ensure the design intent is maintained.	Yes
37	MECo fees to be by Owner or Contractor?	MECO fees will be paid by the Contractor for all phases. There is an Allowance on the revised Bid Schedule for each phase MECO is involved.
38	Have MECo construction plans been completed?	No, plans were completed for any phase.
39	Has a MECo work order # been issued?	No, work order number for any phase were issued
40	Note-3 calls for MCC to be by others. Drawing EA1-8 calls for an MCC and provides MCC details. Who is to furnish this MCC?	Electrical contractor (disregard note)
41	MCC to be furnished by the electrical contractor, mechanical contractor or the owner?	Electrical contractor
42	Drawing EA1-3 calls for exterior mounted VFD drives in 316 NEMA 4X enclosures. These VFD drives will be subject to direct sunlight for extended periods of time. Please confirm that integral AC units are not required to keep this equipment from overheating.	These VFDs are manufactured to be mounted outside.
43	Drawing EA1-3 There are no EY seals shown beneath the VFD drives or within the wet well in line with the pipes entering the wet well. Please confirm that this area is not considered class-1 div-1 or class-1 div-2 and the EY seals are not required to stop toxic gases from entering the VFD drives	Not hazardous location
44	Drawing EA1-3 Note-6 calls for flexible liquid tight conduit. Is this required to be stainless steel type liquid tight conduit?	No

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No.	Question	DHHL Response
45	Drawing EA1-3 there are two service receptacles called for at the top of the pump wet well. Are these receptacles required to meet any classified location requirements?	No
46	Drawing EA1-3 the pad mounted transformer and the new generator are installed adjacent to one another. Are there any additional clearances required by MECo for this installation?	No
47	Drawing EA1-3 there are no wet well electrical wiring details for hanging of floats and or connection of the pump feed cables to the top lid of the vault. Is the pump cable required to go straight through to the VFD with no splices? Is a junction box required within the wet well? Is any type of protective coverings to be installed on the cables?	Pump feed cables and float cables provided by manufacture. Install per manufacture requirements. No boxes in the wet well are planned for at this time.
48	Drawing EA1-4 is the power riser, there are no AIC rating provided for the new MCC. Please confirm that the MCC and all other equipment with no AIC listed is to be provided at 22KAIC.	OK
49	Drawing EA1-4 does not call for a coordination or arc flash study is either required?	No
50	Drawing EA1-4 calls for correction capacitors. Has the pump manufacture and VFD supplier verified that this will be ok with the VFD's being furnished?	No
51	Drawing EA1-4 there is no grounding electrode or main bonding shown at the generator. Are the generator transfer switches to be 3-pole or 4-pole. If 4-pole, please confirm a grounding electrode and main bonding jumper should be added at the generator.	Add ground as required.
52	Drawing EA1-4 NEC 250.122 does not permit a #4 copper equipment grounding conductor for an 800A overcurrent device. Please confirm that 1/0 copper is required for the equipment grounding conductor.	Plans call for a 1/0 grounding conductor. #4 ground wires are shown for each set of #500MCM cables in separate conduits.
53	Drawing EA1-4 NEC 250.66 does not permit a #4 copper grounding electrode conductor for 600-1100 KCMIL. Please confirm that a 2/0 copper grounding electrode conductor is required.	#4 ground wires are shown for each set of #500MCM cables in separate conduits.
54	Drawing EA1-4 calls for a #4 ground to the utility transformer. No grounding electrode has been derived at this point. Please confirm that this can be omitted from the installation.	Yes

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No.	Question	DHHL Response
55	Drawing EA1-4 calls for (3) # 4/0's and (1) #4 grd. to the new pumps. A 160HP motor is not listed within NEC 430.250 only a 150HP and a 200HP. The full load amps for a 150HP is 180A and 125% of this is 225A. NEC allows 230A on a 4/0 copper conductor. Please confirm that the actual name plate data can be used to size the motor feeder due to there being no 160HP motor within the NEC.	Yes
56	Drawing EA1-4 calls for all equipment to be NEMA4X, motor control centers are not available to be NEMA4X. Please confirm that NEMA3R 316 stainless steel will be acceptable	Yes
57	Drawing EA1-8 provides details for an MCC. There are no actual MCC buckets shown on the detail can UL 891 construction be utilized for this MCC?	Yes
58	Drawing EA1-8 references DWS, please confirm that DWS is intended to read WWRD.	Disregard note as station will not be turned over to the county at this time.
59	Drawing EA1-8 identifies for a Radio antenna, it also identifies that DWS will be furnishing the coax cable. WWRD does not utilize these antennas or coax cable anymore. Please provide details that represent current WWRD standards for communications.	Pending
60	Drawing EA1-8 does not identify for a meter on the MCC. Drawing EA1-4 calls for CT's and PT's. Please confirm that the MCC be furnished with a meter. Please provide specifications for the meter.	No meter, disregard
61	DWG. EA4-3:Note-3 calls for MCC to be by others. Drawing EA4-7 calls for an MCC and provides MCC details. Is this MCC to be furnished by the electrical contractor, mechanical contractor or the owner	Electrical Contractor
62	DWG. EA4-3: Who is to install and wire the MCC, the electrical contractor or the mechanical contractor?	Electrical Contractor
63	Drawing EA4-3 calls for exterior mounted VFD drives in 316 NEMA 4X enclosures. These VFD drives will be subject to direct sunlight for extended periods of time. Please confirm that integral AC units are not required to keep this equipment from overheating.	These VFDs are manufactured to be mounted outside
64	EA4-3 There are no EY seals shown beneath the VFD drives or within the wet well in line with the pipes entering the wet well. Please confirm that this area is not considered class-1 div-1 or class-1 div-2 and the EY seals are not required to stop toxic gases from entering the VFD drives.	Seal conduits

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No.	Question	DHHL Response
65	EA4-3 Note-6 calls for flexible liquid tight conduit. Is this required to be stainless steel type liquid tight conduit	No
66	EA4-3 there is a service receptacle called for at the top of the pump wet well. Is this receptacle required to meet any classified location requirements?	No
67	EA4-3 there are no wet well wiring details for hanging of floats and or connection of the pump feed cables to the top lid of the vault. Is the pump cable required to go straight through to the VFD with no splices? Is a junction box required within the wet well?	Pump feed cables and float cables provided by manufacture. Install per manufacture requirements. No boxes in the wet well are planned for at this time.
68	EA4-4 calls for (3) # 2's and (1) #8 grd. to the new pumps. A 72HP motor is not listed within NEC 430.250 only a 75HP. The full load amps for a 75HP is 96A and 125% of this is 120A. NEC allows 115A on a #2 copper conductor. Please confirm that a #1 should be pulled to the 72HP pumps.	Follow nameplate information, upgrade to #1 if required.
69	EA4-4 calls for all equipment to be NEMA4X, motor control centers are not available to be NEMA4X. Please confirm that NEMA3R 316 stainless steel will be acceptable.	Yes
70	EA4-4 The ATS is listed as NEMA-1, please confirm that the intent is for this to be NEMA4X.	Yes
71	EA4-4 The main breaker is not noted, please confirm that this is to be NEMA-4X.	Yes
72	Please confirm that the meter can is to be NEMA3R stainless. Please confirm that the generator housing is to be NEMA-3R	Yes
73	EA4-4 calls for a #4 ground to the utility transformer. No grounding electrode has been derived at this point. Please confirm that this can be omitted from the installation.	Yes
74	EA4-4 there is no grounding electrode or main bonding shown at the generator. Are the generator transfer switching to be 3-pole or 4-pole. If 4-pole, please confirm a grounding electrode and main bonding jumper should be added at the generator.	Add ground as required.
75	EA4-4 is the power riser, there are no AIC rating provided for the new electrical equipment. Please confirm that the new electrical equipment is to be provided at 22KAIC.	Ok
76	EA4-4 does not call for a coordination or arc flash study is one required?	No

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No.	Question	DHHL Response
77	EA4-4 calls for correction capacitors. Has the pump manufacture and VFD supplier verified that this will be ok with the VFD's being furnished?	No
78	EA4-7 provides details for an MCC. There are no actual MCC buckets shown on the detail can UL 891 construction be utilized for this MCC?	Yes
79	EA4-7 references DWS, please confirm that DWS is intended to read WWRD.	Disregard note as station will not be turned over to the county at this time
80	EA4-7 identifies for a Radio antenna, it also identifies that DWS will be furnishing the coax cable. WWRF does not utilize these antennas or coax cable anymore. Please provide details that represent current WWRD standards for communications.	Pending
81	EA4-7 does not identify for a meter on the MCC. Drawing EA1-4 calls for CT's and PT's. Please confirm that the MCC be furnished with a meter. Please provide specifications for the meter.	No meter, disregard.
82	EA4-7 calls for the MCC to be NEMA-4X. The MCC can't be NEMA-4X due to the open bottom. Please confirm that NEMA 3R stainless steel is acceptable.	Yes
83	Questions: Drawings EB-2	{PHASE B HAS BEEN DELETED.}
84	Questions: Drawings EB-3	{PHASE B HAS BEEN DELETED.}
85	Questions: Drawings EB-3.2	{PHASE B HAS BEEN DELETED.}
86	Questions: Drawings EB-3.3	{PHASE B HAS BEEN DELETED.}
87	Questions: Drawings EB-4	{PHASE B HAS BEEN DELETED.}
88	Questions: Drawings EB-5	{PHASE B HAS BEEN DELETED.}
89	Questions: Drawings EB-6	{PHASE B HAS BEEN DELETED.}
90	Questions: Drawings EB-7	{PHASE B HAS BEEN DELETED.}
91	Questions: Drawings EB-8	{PHASE B HAS BEEN DELETED.}
92	Questions: Drawings EB-9	{PHASE B HAS BEEN DELETED.}

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No.	Question	DHHL Response
93	Questions: Drawings EB-10	{PHASE B HAS BEEN DELETED.}
94	Section 16000, page 1 of 8 states "Coordination with the Department of Water Supply on their work regarding the system controls and SCADA System." To our knowledge there are no Department of water supply SCADA systems that will be related to this project. Please confirm that the work is to be coordinated with the wastewater reclamation department.	The wastewater reclamation department does not typically self-perform any SCADA work. Disregard, Station will not be turned over to the county at this time.
95	Section 16000, page 1 of 8, Please confirm that all SCADA integration work is to be by the contractor and its sub-contractors?	Yes
96	Section 16000 1.3 B. Calls for all electrical apparatus to be UL listed. Is the SCADA panel required to be built by a panel fabricator that can provide a UL 508 listing?	Yes
97	Section 16000 1.6 Project conditions B. "Corrosive Areas: The following areas are designated as corrosive: exteriors, chlorination room." Please provide a comprehensive list outlining all areas at each of the project sites that are considered classified by NEC Article 500	corrosive: exteriors
98	Specification 16000 general requirements requires submittals for the following: SCADA system, Programmable logic controllers, Motor Control Centers, Motor Starters, Electrical apparatus, Light fixtures, Emergency generator set and transfer switches. These specifications provide detailed descriptions listing the qualifications of the manufacturers and outline in great detail the startup and warranty details. There are no detailed specifications for the Motor starters, Motor control centers and electrical apparatus/ switchgear.	{PHASE B HAS BEEN DELETED.}
99	Section 16110, page 4 of 4, Conduit entering field equipment enclosures shall enter the bottom or side of the box. Where conduit comes from above, it shall be run down beside the enclosure and a tee conduit and drip leg installed. Can myers hubs be used to go into the top of equipment, if equipment arrangement does not permit bottom or side entry?	Yes. If no other option
100	Specification 16000, Please provide specifications for the motor control centers, switchgear and electrical apparatus. The drawings note that the switchgear shall be by square-d or Eaton. Please provide the required manufactures qualifications and warranty/ start up requirements.	{PHASE B HAS BEEN DELETED.} Other equipment per plan.

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No.	Question	DHHL Response
101	Section 16120, Page 4 of 8, 2.5 SPARE PARTS A. Provide one (1) spare solid-state reduced-voltage starter, Cutler-Hammer type S811, compatible with motor control center. B. Provide one (1) spare 20kVA control transformer compatible with motor control center. The MCC's shown do not have RVSS type 811 soft starters, please confirm this is not required. The MCC's don't have control transformers shown, please confirm this is not required.	If not shown, Not required
102	Section 16120, page 1 of 4, 2.4 SPLICING AND TERMINATING MATERIALS, A. 600 Volt Conductor and Cable Connectors: Connectors shall be tool applied compression type or correct size and UL listed for the specific application. Connectors shall be tin-plated high conductivity copper. Are there size limitations where high press terminations are required? Does the equipment provided by division-11 require high press terminations?	No, to both questions
103	Page 16235 2 of 16, 1.5 ACCEPTABLE MANUFACTURERS, A. Only approved bidders shall supply equipment provided under this contract. Equipment specifications for this project are based on generator sets manufactured by Caterpillar Power Systems with microprocessor-based controls. Equipment by other suppliers that meets the requirement of this specification are acceptable, if approved not less than 2 weeks before scheduled bid date. Only one generator manufacturer is listed. Please provide 1-2 other acceptable equal generator manufacturers so that competitive bids can be submitted from multiple vendors in compliance with Hawaii procurement law.	Cummins/Onan is definitely acceptable
104	Section 16483, Page 16483 1 of 14, 2.1 ACCEPTABLE MANUFACTURERS, A. Danfoss VLT® AQUA Series VFD (Variable Frequency Drive) Only one VFD manufacturer is listed. Please provide 1-2 other acceptable equal VFD manufacturers so that competitive bids can be submitted from multiple vendors in compliance with Hawaii procurement law.	VFD's to be supplied by Pump manufacture as a package
105	Is the intent of specification 16483 2.1 A. to standardize VFD's throughout the project site? Are the VFD's in the MCC to be of the same manufacture as all other VFD's? Are the VFD's within the packaged units required to match all other VFD's through the project site?	VFD's to be supplied by Pump manufacture as a package
106	Section 16975, 1 of 6, 1.1 D states "Provide conduits, wiring and termination of field devices. Terminations within SCADA/PLC cabinet shall be by the Department of Water Supply (DWS)." Please confirm that DWS will not be terminating the SCADA panels. Please advise who is to terminate the SCADA panels	No DWS, Contractor to terminate

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No.	Question	DHHL Response
107	Section 16975, 2.5 SCADA RTU, A. SCADA System RTU shall be as manufactured by Advanced Telemetry Systems International, Inc. (ATSI) Model 91200 CP-12. Provide RTU with Ethernet and serial communication ports, processor, power supply, slot backplane, digital and analog input modules, digital and analog output modules in the configuration indicated on the drawings and required to perform the functions indicated. RTU shall include a radio modem, back-up 10 AH battery, RF lightning arrester, AC power, DC Back-up power and I/O wired to terminal blocks. Unit shall be mounted in a 20"x20"x8"D NEMA 1 enclosure. Provide a minimum of three mixed I/O configuration must match what is shown on the drawings because standard software will be used by the Department of Water Supply. Please confirm that WWRD uses the ATSI RTU?	WWRD not involved at this time
108	Section 16975, A. Radio transmitter-receiver and directional antenna shall be provided to operate with the Department of Water Supply's radio telemetry/SCADA System. New equipment shall be fully compatible with existing equipment and shall include power supply, battery back up and surge arrester. Provide directional antenna and cable to suit the equipment. i. Antenna: Kathrein SCALA Model CA-7-460 12 dBi and RFS-201-7N gain antenna 450-470 MHz with stainless steel mounting hardware. ii. Antenna Cable: Andrew Harline LD-50A, ½" with Andrews type N connectors, with weatherproofing kits. iii. Radio: Teledesign Model TS4000A05E45SBR radio modem with remote diagnostics option and heat sink. Please confirm that WWRD uses these components at their project sites?	WWRD not involved at this time
109	Section 13441, 1.1 SUMMARY, B. Related Sections include but are not necessarily limited to: 1. Section 13400 - General Requirements for Instrumentation, Systems and Controls 2. Section 13460 - Programmable Logic Controllers Based SCADA System, 1.4 SUBMITTALS A. See Section 01300 for requirements for the mechanics and administration of the submittal process. B. See Sections 13400 and 13460. Section 13400 and 13460 are not within the project documents. Please confirm that these are not applicable. If these sections are applicable please provide these sections.	Yes

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No.	Question	DHHL Response
110	Section 11000, 6 of 10, 11000 1.8 Electrical components of mechanical equipment and systems such as motors and controls shall be provided under this Division and shall be as specified hereinafter, and as necessary for complete and operable systems. Extended voltage range motors will not be permitted. Interconnecting wiring for components of packaged equipment shall be provided as an integral part of the equipment. All interconnecting power wiring and conduit for field erected equipment, and control wiring, shall conform to the requirements of Division 16. Q1: Please confirm that the division-11 contractor and its vendors shall provide all interconnecting raceways, wiring, terminations and programming for packaged units that are skid mounted. Q2: Please confirm that the division-11 contractor and its vendors shall provide all interconnecting raceways, wiring, terminations and programming for all packaged equipment that is not skid mounted but is designed and furnished as an integral system Q3: Please confirm that the division-11 contractor will be coordinating and programming all interconnecting SCADA communications protocols between all packaged equipment	Q1 and Q2:{PHASE B HAS BEEN DELETED.} Other equipment per plan; Q3: yes
111	Section 11000, page 6 of 10, 1.8 C_Strip Heaters, i. Motors 5 HP or greater shall be equipped with strip heaters installed by the manufacturer in such a way that the strip heaters are activated when the motor is not operating and are deactivated when the motor is operating. There are no strip heaters called for on any of the electrical plans. Are any required?	To be provided by pump manufacture, install per manufacture requirements.
112	Section 11221, 2.6, E. Each pump motor shall be provided with a special cable UL-approved and suitable for submersible pump applications; this shall be indicated by a code or legend permanently embossed on the cable. The cable shall be at least 70 feet in length. Power cable shall be minimum 4 conductor, #12 AWG, copper with 600-volt insulation in accordance with NEC requirements. Q1: Does the pump cable assembly require a protective sheath kit for protection against physical damage? Q2: Are the pump cables required to be continuous with no splices all the way to the VFD's or motor starters?	Q1:To be provided by pump manufacturer, Q2: To be provided by pump manufacturer, install per manufacturer requirements.
113	Questions: Specifications-11300, 1.5 Work by Others	{PHASE B HAS BEEN DELETED.}
114	Sheets CA1-4 and CA1-5 detail horizontal directional drilling for the 15" gravity sewer line and 10" force main crossing Maui Veterans Highway. Are partial lane closures an option to help facilitate the directional drilling? Is the contractor responsible for a traffic control plan and acquiring the appropriate permits?	No lane closers will be allowed. Yes, the Contractor is responsible for obtaining the appropriate permits.

Pulehunui Wastewater System (IFB-20-HHL-022)
RESPONSE TO QUESTIONS

No.	Question	DHHL Response
115	Sheet MA1-1 shows an 18" DI sewer line inlet into the north pump station wet well. Sheet CA1-6 shows a 15" sewer line entering the wet well. Please clarify the wet well inlet size or if additional fittings are required to accommodate a transition from 15" to 18" sewer line.	The Contract Drawings has been corrected and is part of this addendum.
116	Sheet MA1-3 and MA4-1 calls for epoxy coating of the entire interior of the wet wells. Does the interior of each sewer manhole require the same epoxy coating as the wet wells?	No, sewer manholes does not have to be coated
117	Phase A3 includes a 4" and 10" force main which run next to each other for most of the WWTP access road. What is the minimum lateral distance requirement for the force mains from each other?	3' between centerlines
118	Has the SCADA antenna on drawings EA1-8 and EA4-7 been reviewed and approved by County of Maui WWRD? The antenna shown is not consistent with SCADA installation at their other facilities. Please confirm make and model of all communication devices.	Presently, this is not a County WWRD project.
119	The stanchions on drawings EA1-8 and EA4-7 are shown as galvanized. Please confirm that stainless steel stanchions will not be required.	Yes, galvanized stanchions.
120	Drawings EA1-3 and EA4-3 do not show any conduits interconnecting the generator and the SCADA section of the MCC. Specification 16235_2.4_J calls for remote monitoring of the generator. Please provide conduit requirements for the conduit between the SCADA section of the MCC and the generator.	3/4" C is adequate
121	Drawings EA1-3 and EA4-3 do not show any auxiliary power conduits between the generator and Panel-A for the battery charger, louvers, block heater etc. Please provide conduit requirements for these auxiliary power items.	3/4" C is adequate
122	Drawings EA1-3 calls for (2) 3" conduits between the ATS and the MCC. Drawings EA1-4 calls for (2) 4" conduits between the ATS and the MCC. Please clarify conduit size between the ATS and the MCC.	(2)- 4" C
123	Drawings EA1-7 and EA4-6 calls for a metal mounting base on the concrete pad for the generator attached by J-bolts. Please confirm that the manufacturer's recommendations will take precedent if this metal base is not recommended by the manufacturer. If this metal base is required, will a HI licensed structural engineer be required to review and stamp the shop drawings for it. What are the seismic requirements for the metal base?	Follow manufactures recommendations.

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No.	Question	DHHL Response
124	The electrical plans include a note on multiple sheets stating that "All new pole & anchor locations are to be staked out by the developer's surveyor." However, the sample contract states that "Any surveying services required shall be the responsibility of the contractor." Does the contract take precedence, or the plans and specs?	Pole and Anchor Staking shall be done by contractor
125	Spec section 1010 discusses Work of and Charges by Utilities, however payment of utility fees for work performed by Maui Electric is not directly addressed. Please confirm that the State of Hawaii will pay for all MECO costs, and that the contractor will only be responsible for coordinating with their work.	In the revised Bid Offer, there will be an allowance declared for MECO costs, that will be paid for by the Contractor.
126	Spec section 11221 calls for the new pumps to be tested for a 4 hour duration. Because the treatment facility has been eliminated from the scope of work, the ends of the force mains from these pumps will be capped off. Will the contractor be allowed to dispose of the water used for the 4 hour pump test as well as dewatering effluent on DHHL property by digging a temporary evaporation pond or similar?	Contractor to provide temporary piping and temporary flow meter from main manifold and return it back to the wet well. Use valves to simulate design pressure.
127	Is blasting allowed for rock removal?	No blasting will be allowed on this project.
128	Neither pump station includes a flow meter on the pump discharge piping or force main. These are commonly included at County of Maui Wastewater Reclamation Division pump stations. Should flow meters be added?	This is not a County of Maui WWRD project. No flow meters required at this time.
129	Is more detailed information available regarding ground water levels? Plan sheet SA4-1 shows the ground water at an elevation of 3 ft with waterproofing for a significant portion of the wet well below the water table for the south pump station as part of phase A4. The boring logs in the region, B-38 through B-41 state "Water Level: Not Measured." However, boring logs B-13 and B-14 at the north pump station show ground water encountered at elevations of 9.5 ft and 0 ft, respectively. It is surprising to have such different measurements as these borings are only a few feet apart. If more detailed information is available regarding the ground water at the south pump station, that will be very beneficial for contractors to be able to provide accurate bids and costly change orders.	Unfortunately, this is the only information we have available.
130	In the bid form, each phase has an allowance for geotechnical testing. Additionally, there are bid items which include compaction testing. Is the contractor responsible for compaction testing or can the geotechnical testing allowance be used for all compaction testing?	In the revised Bid Offer, there will be an allowances for mobilization/demobilization, geotechnical testing, archeological monitoring, MECO, permit fees and unforeseen circumstances.

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131	To facilitate directional drilling operations, will the contractor be allowed to store drilling mud onsite temporarily prior to it being hauled away and disposed of properly?	Contractor to be allowed to temporarily store drilling mud near drilling operations and haul it off later for proper disposal
132	One Line Diagram shows that a NEMA 3R w/ Quiet Site Housing is required, but the 16235 Gen Specification does not include any more information on this. What is the specification of a Quiet Site Housing, what is the sound attenuation at 23'? Is aluminum or Stainless Steel required?	Genset weather protective housing shall be constructed of aluminum and finished with powder coat paint. The sound rating shall be a maximum of 73dB(A) at 7 meters, and the housing shall be evaluated to withstand 180 MPH wind loads in accordance with ASCE7-10. Enclosure shall cover entire genset (generator, fuel system and exhaust system).