

PROJECT TITLE/LOCATION: Q1395, MARINE RAIDERS REDIMENT HQ,

MARINE CORPS AIR STATION, CAMP LEJEUNE, NORTH CAROLINA

Question No.	Page	Section	Para.	QUESTION	GOVERNMENT RESPONSE	AMEND No.
1	M-703			This is in regard to the Energy Recovery Unit (ERU) as shown on M-703. The Points List says “Energy Recovery Wheel Discharge Temperature” and “Energy Recovery Wheel Discharge Humidity”. There are two “discharge” air flows from the energy recovery wheel, outside air and exhaust air. The control drawing shows discharge temperature and humidity in the OA air flow, but not EA flow. Is it the engineer’s intent to have energy recovery wheel discharge temperature and humidity in the EA air flow also? If so, hopefully they will add those points to the control drawing for clarity.	The intent is to monitor the energy recovery wheel temperature upstream and downstream of the energy wheel for the outside air and upstream of the energy wheel for the exhaust air as shown on the control drawing M-703. The exhaust air discharge downstream of the wheel does not require monitoring.	AMEND 0001
2	MH-101			Please clarify that only one ESS switch is required. One is shown in the Entry Vestibule (Room 100) on MH101.	Correct, only one emergency shutdown switch is required.	AMEND 0001
3	M-602 M-703			Please confirm the unit identified as DOAU-1 on M-602 is the same unit identified as Energy Recovery Unit (ERU) on M-703.	Correct, the ERU identified as ERU on M-703 is the unit identified as DOAU-1 on M-602. All references to ERU to be DOAU.	AMEND 0001

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4	M-602			DOAU-1/ERU has an energy recovery wheel driven by a VFD as required by Note 2 in the DOAU-1 Schedule. Please confirm this VFD is <i>factory installed</i> as an integral component of the DOAU-1 and does not require any field installation other than high voltage power connection and control system interface.	As noted in control drawings general notes on M-701, controls contractor shall provide all components necessary to perform the sequences of operation and that controllers, sensors, control dampers, airflow sensors, etc. may be provided integral to the equipment if capable of performing the sequence of operation and functions indicated.  VFD shall be provided by controls contractor unless provided integral to the equipment.	AMEND 0001
5	M-703			The Sequence of Operation (SOO) for the ERU on M-703 makes several references to the "outdoor air intake dew point". The control drawing on M-703 shows the OAT and OAH sensors used to calculate OA dew point located <u>inside</u> the ERU. Those sensors are separated from outdoors by an OA intake louver, motorized OA damper, AFMS, a length of duct, and two filters. If the ERU is not operating the OAT and OAH sensors as presently shown will not provide an accurate reading of actual OA conditions. We understand this building may be occupied 24x7, so maybe there is no time when the ERU is not operating. If that is not the case then we suggest those sensors be relocated to an outside wall near the OA intake louver. Note than an OAT sensor, presumably located outdoors, is already shown on M-702.	The outside air temperature and humidity sensor for DOAU operation are only utilized when the DOAU is operating therefore the location shown on the drawings will allow proper operation.  It is acceptable to utilize a common outside air temperature located outside for DOAU control and it is acceptable to relocate the humidity sensor to the lower plenum or outside air duct upstream of the DOAU if preferred for ease of installation.	AMEND 0001

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6	M-703			<p>For the three middle paragraphs of SOO for the ERU on M-703, please revise the wording to indicate which air stream (EA or OA), and which location in the air stream, the text is referring to. For example one sentence currently reads: "High Outdoor Air Humidity: If the outdoor air intake dew point is greater than the wheel discharge dew point set point of 55F, and greater than the exhaust air dew point the energy wheel..."</p> <p>For additional clarity that sentence might be revised to read: High Outdoor Air Humidity: If the outdoor air <del>intake</del> dew point <b>entering the energy wheel</b> is greater than the wheel discharge <b>OA</b> dew point set point of 55F, and greater than the exhaust air dew point <b>entering</b> the energy wheel..."</p>	See amendment.	AMEND 0001
7	M-703			<p>M-703 shows an AI point for measuring energy recovery wheel speed, and a different AI point for speed output of the VFD controlling the wheel. If the VFD "direct drives" the wheel then those two speeds should be the same and one of those AI points is redundant. On the other hand if the VFD drives the wheel via gears or belt drive then those two speeds would be different (but wheel speed could be calculated from VFD speed if drive ratio is known). Do we know if the wheel will be direct drive? If the wheel is not direct drive, is it ok to calculate wheel speed using drive ratio instead of direct measurement? Direct measurement of drive shaft rpm is tricky and expensive.</p>	See amendment.	AMEND 0001

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8	M-703			M-703 control drawing shown a DI “wheel rotation sensor” and also a DI from a current transformer between the VFD and the wheel motor. Please clarify how these points differ. If the wheel is not rotating then the current transformer should indicate zero amps which would notify that the wheel is not turning. What additional information is the DI wheel rotation sensor measuring?	The intent is to monitor both the motor and wheel rotation. If the motor is running but the wheel is not rotating then it would indicate an issue with the belt.  If wheel is direct drive the motor DI point can be eliminated.	AMEND 0001
9	M-703			On M-703 the first paragraph of the SOO under “Variable Air Volume Units (Demand Control Ventilation)” says the following: “The vav unit (box) shall modulate OA flow to maintain space CO2 levels of 700 ppm <b>below</b> measured OA CO2 levels.” The following two bullets relate to this:		AMEND 0001
				<ul style="list-style-type: none"> <li>We suspect that should read “... <b>above</b> measured OA CO2 levels”. The second paragraph of the SOO has a similar problem.</li> </ul>	See amendment.	AMEND 0001
				<ul style="list-style-type: none"> <li>OA CO2 will always be less than indoor CO2 in this location. The entire SOO might be simplified as follows: “When any FCU in the area served is in occupied mode then modulate OA flow between minimum and maximum as necessary to maintain zone CO2 set point. If the area served is not occupied then set OA flow to zero.”</li> </ul>	The DOAU has an occupied and unoccupied status therefore it is not necessary to monitor FCU occupancy status. Outside air shall modulate to maintain CO2 setpoints when DOAU is in occupied mode with correction noted for setpoint above outside air CO2 level.	AMEND 0001
10	M-703			On M-703 the SOO under “Heating” says to modulate a pre-heat coil control valve. That seems to be a mistake since there is no pre-heat coil. A preheat coil is also mentioned in the Freeze Protection SOO.	The DOAU does not have a pre-heat coil as noted. The reference to pre-heat should be stricken from the sequence of operation.	AMEND 0001

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11	M-703			On M-703 the SOO under “Heating” says to modulate a pre-heat coil control valve. That seems to be a mistake since there is no pre-heat coil. A preheat coil is also mentioned in the Freeze Protection SOO.	The DOAU does not have a pre-heat coil as noted. The reference to pre-heat should be stricken from the sequence of operation.	AMEND 0001
12	M-703			On M-703 the SOO under “Supply Air Duct Static Pressure Control” includes the following sentence: “Exhaust VAV-11 and Exhaust VAV-12 shall modulate to <b>maintain</b> CAV-5 air flow.” It’s not clear what is meant by “maintain”. CAV-5 controls <i>by themselves</i> will do whatever it takes between full open and full closed to maintain a constant exhaust flow of 1285 cfm. What are Exhaust VAV-11 & 12 supposed to do? Their relationship to CAV-5 is not clear.	See amendment.	AMEND 0001
13	M-704			M-704 says “2-Position” in regard to valves, but M-704 also shows valves controlled by AO signals which usually implies modulating control. “2-Position” means the valve is either 100% open or 100% closed and never in-between which is not good for controlling occupied space. The following two bullets relate to this:	See amendment.	AMEND 0001
				<ul style="list-style-type: none"> <li>Recommend “2-Position” be changed to “Modulating”. If you accept this suggestion then Note 9 in the Fan Coil Unit Schedule on M-601 also needs to be changed. Maybe also the Unit Heater detail on M-705 could be changed although it doesn’t matter so much in an equipment room.</li> </ul>	See amendment.	AMEND 0001

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				<ul style="list-style-type: none"> <li>Does Note 9 in the Fan Coil Schedule imply valves are to be provided by the fan coil manufacturer? In order to insure compatibility with the control system we do not recommend that.</li> </ul>	<p>As noted in control drawings general notes on M-701, controls contractor shall provide all components necessary to perform the sequences of operation and that controllers, sensors, control dampers, airflow sensors, etc. may be provided integral to the equipment if capable of performing the sequence of operation and functions indicated.</p> <p>Control valves are not required to be intergral or provided by manufacturer and can be provided by controls contractor if preferred for proper operation.</p>	AMEND 0001
14	M-704			<p>On M-704 the following is in the SOO for both Heating Mode and Cooling Mode: "Fan coil unit shall cycle to maintain space set point." Especially considering the fan coils have variable speed fans we recommend this be deleted. It will be difficult to maintain uniform temperature distribution, and uniform distribution of OA, if fans are turned completely off.</p>	See amendment.	AMEND 0001
15	M-704			<p>On M-704 please provide additional guidance in the SOO for how fan speed and valve modulation are to be coordinated to satisfy a set point. The questions immediately above and immediately below this item are somewhat related. For example, if the fan coil motor can modulate to near zero then why cycle it?</p>	See amendment.	AMEND 0001

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16	M-704			In the SOO on M-704 under “Variable Speed Control” it says: Fan ECM controller shall be modulated between minimum and maximum speeds in proportional response to heating and cooling requirements. What is the minimum speed?	See amendment.	AMEND 0001
17	M-705			The DX Ductless Split System Control Diagram on M-705 says “factory provided controls”. There are a number of points of control shown in the Points List and Control Drawing. Are all of those points just depictions of points integral to the stand alone factory provided controller, or are some also points of interface to the building ddc system either via hard wiring or BACnet interface to the factory controller?	Points indicated shall be communicated to building DCC via BACnet interface as required.	AMEND 0001
18	M-704			In the SOO on M-704 under “Alarms” it says: “An alarm shall be sent for condensate drain failure.” Is this the same alarm as when the Condensate Overflow Switch detects a high level and shuts off the fan, or is this a different additional point?	The alarm shall be generated by the condensate overflow switch which indicates a condensate drain failure.  Additional point is not required.	AMEND 0001
19	M-705			In the Building Utilities section of M-705 there is a Points List that includes “Potable Water Recirculation Pump” start-stop and status. Please confirm this is the Potable <b>Hot</b> Water Recirculation Pump.	Correct, the start/stop status for the potable water recirculation pump is for the hot water recirculation pump.	AMEND 0001
20	M-702			At the far right end of the Heating Water System Control Diagram on M-702 there is a note that says “Typical equipment with chilled water control valve”. We suspect the engineer meant to say “hot” instead of “chilled”.	Correct, the note should indicate "TYPICAL EQUIPMENT WITH HOT WATER CONTROL VALVE"	AMEND 0001
21	M-702			To the left of center in the Heating Water System Control Diagram on M-702 there is a “Building Water Heating Flow Meter” shown as a DI point. The engineer probably meant that to be an AI point? It appears to be shown as an AI in the Points List.	See amendment.	AMEND 0001

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22	P-903 P-502			A propane meter is shown on P-903, and a gas meter detail is shown on P-502, so that implies the plumber will provide and install that meter. Is the plumbing contractor responsible for providing and installing a propane meter that meets the base standards and can also connect, as required, to the building ddc?	General contractor is responsible for division of work between subcontractors.  Meter should be provide per RFP specifications	AMEND 0001
23	ES101			An electric meter is shown on ES101. Is the electrical contractor responsible for providing and installing an electric meter that meets the base standards and can also connect, as required, to the building ddc?	The electric meter shown on sheet ES101 is an electric utility meter. While the electrical contractor is responsible for providing and installing an electric meter that meets the base standards, the meter does not connect to the building DDC. See Power Riser Diagram on sheet EP601 for further clarification.	AMEND 0001
24	??			Who is responsible for providing and installing the water meter?	General contractor is responsible.	AMEND 0001
25	M-701			The SOO on M-701 says the following: "Chilled water flow through the chiller shall modulate to maintain chilled water supply temperature as sensed by CWS-T1." We believe that sentence should be deleted or modified. This is a variable-primary pumping system so chw flow rate must be the sum of the flows of all chw valves. The flow delivered to the building cannot be dictated by chiller leaving water temperature. We note that 12 fan coils are specified to have 3-way control valves, both HW and CHW. The CHW total for those 3-way fan coil valves is 79.5 gpm which is 47% of the scheduled flow rate for the chiller. Thus it's unlikely there will be low flow issues at the chiller.	Agree, the sentence to modulate flow based on chilled water temperature should be deleted. Chilled water pump speed shall modulate based on remote DP with minimum flow per air cooled chiller schedule.  (Note 3-way valves total flow equal 86 gpm which exceeds minimum air cooled chiller flow)	AMEND 0001



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26	M-701			The control drawing on M-701 shows a device where CHW enters the chiller. The device is the letter "F" in a square box with "DI" attached to it and the note "Chilled Water Flow Meter". We suspect the engineer intended this note to read "Chilled Water Flow Switch".	See amendment.	AMEND 0001
27	M-701			The control drawing on M-701 shows a device in the CHW line leaving the chiller that is represented by an oblong symbol and the adjacent note "Flow Meter". We suspect the engineer will want to add "AI" to this device to indicate it is an input to the ddc system.	See amendment.	AMEND 0001
28	M-603			Schedules for CAV and VAV Terminal Boxes include notes that say the following: "Provide 24v actuator and control board powered from energy recovery control panel or BAS control panel." The following three bullets relate to these notes:		AMEND 0001

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				<ul style="list-style-type: none"><li>Unless it is the engineer's intent that the box manufacturer supply factory installed BACnet controllers, we recommend the words "control board" be removed from these notes in order to avoid confusion.</li></ul>	<p>As noted in control drawings general notes on M-701, controls contractor shall provide all components necessary to perform the sequences of operation and that controllers, sensors, control dampers, airflow sensors, etc. may be provided integral to the equipment if capable of performing the sequence of operation and functions indicated.</p> <p>Controls are not required to be intergral or provided by manufacturer and can be provided by controls contractor if preferred for proper operation.</p>	AMEND 0001
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				<ul style="list-style-type: none"> <li>Different control brands use different damper actuators. Some controllers use an AO signal to the actuator, and some use two DOs. Some provide the actuator factory assembled with the controller as a single component while others provide physically separate actuator and controller. It is difficult for a box manufacturer to navigate these variables, so it is best for actuators to be provided and field installed by the controls contractor. Therefore we recommend "24v actuators" be removed from this note.</li> </ul>	<p>As noted in control drawings general notes on M-701, controls contractor shall provide all components necessary to perform the sequences of operation and that controllers, sensors, control dampers, airflow sensors, etc. may be provided integral to the equipment if capable of performing the sequence of operation and functions indicated.</p> <p>Control are not required to be intergral or provided by manufacturer and can be provided by controls contractor if preferred for proper operation.</p>	AMEND 0001
				<ul style="list-style-type: none"> <li>It seems the engineer's intent is for the controls contractor to provide power for box controls. This is confirmed by EP103 and EP104 which do <u>not</u> show the electrical contractor providing power to the boxes. If the engineer agrees with our recommendations in the lines above then we recommend the schedule note in question be revised to read as follows: "Controls contractor shall provide power circuits for CAV and VAV boxes. Power shall be sourced from DOAH/ERU control panel or any other BAS control panel. Power circuits shall be 24v. Contractor shall submit proposed wire size and circuit length, including voltage drop calculation, to insure satisfactory voltage is delivered to the last controller on the circuit."</li> </ul>	<p>Power for CAV and VAV boxes shall be provided from control panels as noted on RFP documents.</p> <p>Controls contractor shall provide all power wiring and control wiring as required for all control devices. Wiring and conduit shall be installed per RFP documents.</p>	AMEND 0001

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29	EP104			Who is responsible for mounting and wiring the remote alarm and control panel for the sump pump? The control panel is shown in a detail on mechanical plans, but is not shown on EP104.	Electrical drawings show power wiring to sump pump for control panel mounted on wall. General contractor is responsible for division of work between subcontractors.	AMEND 0001
30	??			This building is supported by a generator, ATS, and UPS. Should any of those be monitored by the ddc?	No monitoring of emergency power is required.	AMEND 0001
31	MS101			It is necessary to get control wiring between the building and the water chiller to do the specified hardwired IO points and also the chiller BACnet interface. There does not appear to be any provision for how to get control wiring between the two points. Is it possible for the engineer to specify that the contractor providing trench for the chw piping make that trench wide enough to accommodate a Schedule 80 4" PVC controls conduit provided and installed in the CHW piping trench by the controls contractor? This conduit will have at least four 90s in it.	As noted in control drawings general notes on M-701, controls contractor shall provide all components necessary to perform the sequences of operation and that controllers, sensors, control dampers, airflow sensors, etc. may be provided integral to the equipment if capable of performing the sequence of operation and functions indicated.  Controls contractor shall provide control wire between air cooled chiller and building. Refer to control specifications in RFP for control wire conduit requirements.	AMEND 0001
32	ET103 ET104			Is it acceptable for ddc system low voltage (24v) power wiring, and/or low voltage input-output wiring, to be laid in the cable tray system depicted on ET103 and ET104?	Refer to control specifications in RFP for control wire conduit requirements.	AMEND 0001

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33	I-615	NOTES		Notes call out Dirtt Modular wall systems. Will other manufactures be allowed and if so will a specification be forthcoming .	See Amendment	AMEND 0001
34	RFP	SMALL BUSINESS		The small buisness is calling for SBVOSB is this correct or should it be SDVOSB.	Please Note: This project is being procured as Lowest Price Technically Acceptable (LPTA) not Small Business	AMEND 0001
35	SPECS SECTION	01 30 01.00 22		Spec states the government FF&E and A/V budgets on the bid schedule/price proposal form for the FF&E and A/V pklanned modifications is \$3,593,702 and does not include the contractors HAR the bid form hast the FF&E at \$1,817,208 and the A/V at \$767,408 which totals \$2,584,616 Please advise which is correct.	Spec section 01 30 01.00 22	AMEND 0001
36	BID FORM			Under contract line item notes #6 end of paragraph it states if options are exercised, the contract completion date remains : 630 calendar days after award of contract. Under planned modification Bid notes Section G At bottom of page Completion date of 730 Calendar days from award of contract. Please advise which is correct.	The correct Contract Completion Date is 730 Calendar Days from award of contract.	AMEND 0001
37	A-502	A-1		Shhets A-402 and Sheet A-502 A1 show Phone lockers will there be a specification for theses lockers?	See Amendment	AMEND 0001

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38						Electronic Proposal Due Date is Thursday, August 13, 2020 (via DODSAFE) by 2:00 p.m. (EST). The Offerors shall send the contract specialist, Georgia Scott at Georgia.scott@navy.mil, the email address of the offeror's point of contact who will be receiving the Drop-Off invitation to upload proposals to the DOD Safe Site no later than August 10, 2020 by 1400, unless that date and time are changed via Solicitation Amendment. Hard Copy MUST be sent by (via mail delivery) by Thursday, August 20, 2020 by 12:00 noon (EST)	
	1	SF1442	Box 10 & 13	Please confirm Proposal due date			AMEND 0001
39	Spec section	01 30 01.00 22	1.3	Spec states the government FF&E and A/V budgets on the bid schedule/price proposal form for the FF&E and A/V planned modifications is \$3,593,702 and does not include the contractors HAR the bid form has the FF&E at \$1,817,208 and the A/V at \$767,408 which totals \$2,584,616 Please advise which is correct.	Spec section 01 30 01.00 22.		AMEND 0001
40				Attachments are provided on the Contract Opportunity's page at beta.sam.gov that are not included in the RFP required submission documents. Please confirm Attachment D - Small Business Participation and Commitment Strategy and Attachment C - Small Business Subcontracting Record are not required to be submitted with this response.	Please disregard Attachment C-Small Business Subcontracting Record and Attachment D- Small Business Participation and Commitment Strategy because they are NOT required. The Subcontracting plan document shall be submitted with your proposal.		AMEND 0001

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41				Two different dates are presented as the proposal due dates for the Electronic Copy, August 12 and August 13. Please confirm the desired due date and time for the Electronic proposal submission via the DoD Safe Site.	Electronic Proposal are due (via DODSAFE) on 13 August 2020 at 2:00 p.m. EST. The Offerors shall send the contract specialist, Georgia Scott at Georgia.scott@navy.mil, the email address of the offeror's point of contact who will be receiving the Drop-Off invitation to upload proposals to the DOD Safe Site no later than August 10, 2020 by 1400, unless that date and time are changed via Solicitation Amendment.	AMEND 0001
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