

August 12, 2016
BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
IFB NO. Y17-701-CC/ ADDENDUM NO. 1
REGIONAL COMPUTING CENTER A SIDE POWER FEED AND EMERGENCY
GENERATOR REPLACEMENT

BID OPENING DATE: August 23, 2016

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to, and shall take precedence over, the original documents. Underlining indicates additions, deletions are indicated by ~~strikethrough~~.

A. The bid opening remains August 23, 2016 at 2:00 P.M.

B. Additions, Deletions, and Clarifications

1. **Question:** Sheet ED2.1 hex note 4 directs us to provide spot coolers during the refeed of the CRAC units. Please advise the temperature levels and or BTU's to be maintained / provided.

Answer: Attached is the mechanical equipment schedule for existing CRAC units in which the spot coolers will have to match the heat load management.

2. **Question:** It was mentioned at the meeting that the county would pay for the permits and the contractor would pick them up. Please confirm.

Answer: Confirmed

3. **Question:** Will we be able to have a lay down area for storage trailer and dumpster?

Answer: There should be space to accommodate a storage trailer and dumpster. It will be the general contractor's responsibility to protect the surfaces from damage.

4. **Question:** Sheet A2.1 calls for a new OUC transformer, and sheet E1.1 hex note 1 directs us to replace OUC transformer. Please confirm the transformer is to be replaced.

Answer: OUC will determine if transformer is to be replaced or just lifted while the pad is replaced. Contractor shall anticipate coordination with OUC and provide a new leveled pad regardless.

5. **Question:** If the OUC transformer is replaced, will the EC need to provide any primary conduit installation or new concrete pad?

Answer: It is anticipated that the existing primary conduit is to remain and the new pad will be poured.

6. **Question:** Who will be responsible for the disposal of the OUC transformer if it is replaced?

Answer: OUC.

7. **Question:** If the existing OUC transformer is retained will it be required to level it? Who will be responsible for leveling if needed?

Answer: OUC.

8. **Question:** Who is responsible for disposal of the existing generator; please clarify what is to be done with it.

Answer: The Contractor is responsible for disposal of the old generator.

9. **Question:** Sheet ED2.1 directs us to remove (12) PDU's. Who is responsible for the disposal of the PDU's and what is to be done with them?

Answer: The County will be responsible for disposal of the PDU's.

10. **Question:** Hex note 17 on sheet E2.1 directs us to provide a cat 6 drop to all PDU's. Where is this cat 6 drop to come from?

Answer: The Cat 6 drops will generate from the Sup2T network switch in rack ATM-7 (row right straight ahead as you enter the floor from operation area) to the various areas. There is 32 drops in total needed.

11. **Question:** Hex note 1 on sheet E2.2 directs us to provide a dedicated 20 amp whip from each rack to nearest PDU. Can we reuse and reroute existing whips or must the existing whips be removed and replaced?

Answer: Whips may be reused if they are tested and a credit is provided to the Owner.

12. **Question:** Is there any lightning protection required on this job?

Answer: No

13. **Question:** Sheet E2.2 hex note 2 tells us to reorient rack coolers and racks in this area and to price this as an add alternate. Please provide a detailed scope of work for the add alternate desired.

Answer: **Delete** Hex Note 2 on Sheet E2.2. **Delete** Hex Note 14 on Sheet E2.1

14. **Question:** Are we to provide the diesel needed for testing and a full tank of fuel at the completion of the work?

Answer: The Contractor will be required to provide fuel for testing and a full tank at the end of the project.

15. **Question:** Sheet E6.2 shows Panel LPC as existing on the one line riser diagram. Where is it shown on the floor plan?

Answer: See sheet E3.1 which shows LPC in the "B" bus electrical room.

16. **Question:** The plans give panel schedules for EXP1A and EXP2A but I don't see schedules for EXP1B and EXP2B. Please provide.

Answer: These expansion modules are under a bid alternate. Price as described under keynote 4 on E6.2 and that existing circuits will be re-landed on the new breakers within the new expansion module. Price both Hex notes 3 & 4 on Sheet E6.2 as Bid Additive #1.

17. **Question:** Please advise if electrical contractors are allowed to bid this job as Prime.

Answer: The bidder must be a licensed contractor and the majority of work performed on this project shall be within the scope of this license and the bidder will be responsible for ensuring all required permits are obtained.

C. In Part D of the IFB, delete page D-2 of the Official Bid Form in its entirety and replace with the attached **REVISED PAGE D-2**.

Failure of a bidder to submit their bid using the attached revised bid form, page D-2 shall result in their bid being found non-responsive.

D. ACKNOWLEDGEMENT OF ADDENDA

- a. The Bidder/Proposer shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of the bid or proposal.
- b. All other terms and conditions of the IFB remain the same.

c. Receipt acknowledged by:

Authorized Signature

Date Signed

Title

Name of Firm

**To the Board of County Commissioners
Orange County, Florida**

The Undersigned, hereinafter called "Bidder", having visited the site of the proposed project and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the Contract Form, General Conditions, Supplementary Conditions, Plans and Specifications and other Contract Documents, with the Bond requirements herein, proposes to furnish all labor, materials, equipment and other items, facilities and services for the proper execution and completion of: **REGIONAL COMPUTING CENTER A SIDE POWER FEED AND EMERGENCY GENERATOR REPLACEMENT** in full accordance with the drawings and specifications prepared in accordance with the Contract Documents and, if awarded the Contract, to complete the said work within the time limits specified for the following LUMP SUM.

BASE BID:

_____ DOLLARS
(In Words)

\$ _____

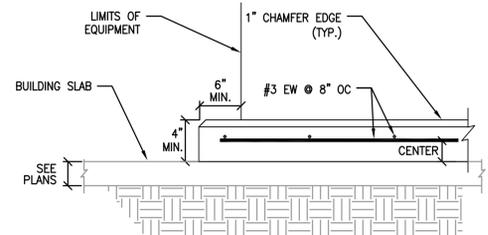
Additive Bid Item 001:

Replace PDU's and Expansion PDU's in accordance with Plan Key Notes numbers 3 and 4 on Sheet E6.2.

\$ _____

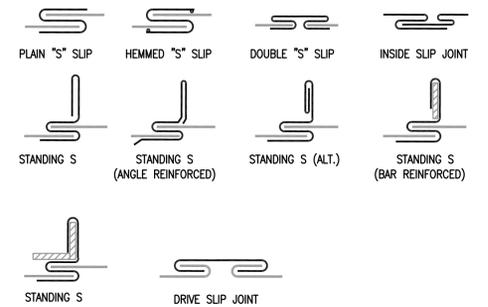
In the event the Contract is awarded to this Bidder, he/she will enter into a formal written agreement with the County in accordance with the accepted bid within ten (10) calendar days after said Contract is submitted to him/her and will furnish to the County a Contract Payment and Performance Bond with good and sufficient sureties, satisfactory to the County, in the amount of 100% of the accepted bid. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages.

Failure of the Bidder to provide pricing for all unit priced items and/or the Base Bid and ALL requested additive/deductive bid items, or alternate bids shall be cause for rejection of the bid as non-responsive.



- NOTES:**
- ALL EQUIPMENT INDICATED TO BE PAD MOUNTED SHALL BE SECURED TO REINFORCED CONCRETE PAD WITH ANCHOR BOLTS.
 - MECHANICAL CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF REQUIRED PAD AND ANCHOR BOLTS. MECHANICAL CONTRACTOR SHALL USE TEMPLATES OF APPROVED EQUIPMENT INDICATED FOR PAD MOUNTING.

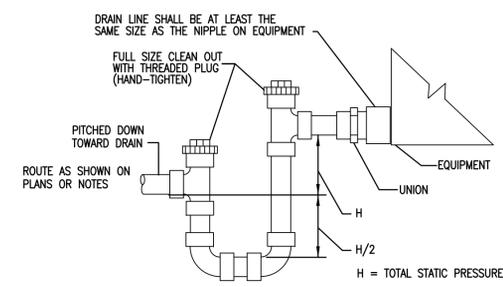
REINFORCED CONCRETE PAD - ON SLAB
NOT TO SCALE



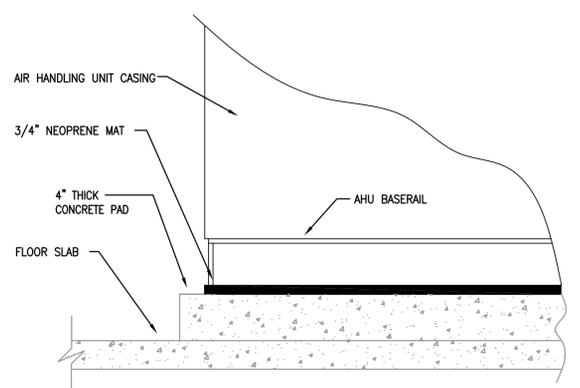
DUCT ATTACHMENT DETAIL
NOT TO SCALE

UNIT NO.	EQUIP. TYPE	AHU		CONDENSER		COOLING CAP.		INFRARED HUMIDIFIER		ELECTRIC HEATER	CAPACITY TONS	FLOW DIRECTION	REMARKS
		MODEL NO.(1)	FLA.(2)	MODEL NO.(1)	FLA.(2)	SMBH	TMBH	LBS/HR	KW				
AC-1	COMPUTER RM	DS-077A	62.4	MCM080	2.8	229.7	259.3	22.1	9.6	NO	22	DOWN	SEE NOTES 1-11
AC-2	COMPUTER RM	DS-077A	62.4	MCM080	2.8	229.7	259.3	22.1	9.6	NO	22	DOWN	SEE NOTES 1-11
AC-3	COMPUTER RM	DS-077A	62.4	MCM080	2.8	229.7	259.3	22.1	9.6	NO	22	DOWN	SEE NOTES 1-11
AC-4	COMPUTER RM	DS-077A	62.4	MCM080	2.8	229.7	259.3	22.1	9.6	NO	22	DOWN	SEE NOTES 1-11
AC-5	COMPUTER RM	DS-053A	45.9	MCM080	2.8	163.6	178.0	17.4	6.4	NO	15	UP	SEE NOTES 1-11
AC-6	EXIST. TO REMAIN												
AC-7	COMPUTER RM	DS-053A	45.9	MCM080	2.8	163.6	178.0	17.4	6.4	NO	15	DOWN	SEE NOTES 1-11
AC-8	COMPUTER RM	DS-070A	64.5	MCM080	2.8	201.2	227.4	22.1	9.6	YES	20	DOWN	SEE NOTES 1-11

- NOTES:**
- MODEL NUMBERS AND EQUIPMENT SELECTIONS ARE BASED ON LIEBERT. SEE SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
 - ELECTRICAL FLA BASED ON TOTAL CONNECTED WITH AUXILIARIES FURNISHED, 480 VOLTS.
 - PHASE, 60 HZ. 3. AC UNITS SHALL INCLUDE CONDENSATE PUMP PRODUCING 20' OF WATER HEAD MINIMUM.
 - A SITE MONITOR PANEL SHALL BE PROVIDED TO DISPLAY STATUS OF AC UNITS AC-1 THRU AC-8.
 - AC-9 THROUGH AC-11 ARE SCHEDULED ELSEWHERE ON THIS SHEET.
 - AC-9 SHALL HAVE 30 KW 3-STAGE ELECTRIC HEAT.
 - COIL CONDITIONS ARE BASED ON AMBIENT INDOOR AIR TEMPS OF 75 DB AND 62.5 WB AND 95 DB OUTDOOR DEGREES F.
 - PROVIDE RETURN AIR SMOKE DETECTORS FOR EACH UNIT. COORD. CONNECTIONS WITH FIRE ALARM SYSTEM.
 - PROVIDE DIGITAL SCROLL COMPRESSORS.
 - INSTALL UNIT ON EXISTING MANUFACTURER'S ADJUSTABLE UNIT STAND. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE MANUFACTURER'S BACNET CARD FOR COMMUNICATION WITH THE EXISTING BUILDING AUTOMATION SYSTEM. CONTROLS CONTRACT SHALL UPDATE CONTROL GRAPHICS TO DISPLAY OPERATION OF THE NEW UNITS.



DRAW-THRU CONDENSATE DRAIN TRAP DETAIL
NOT TO SCALE



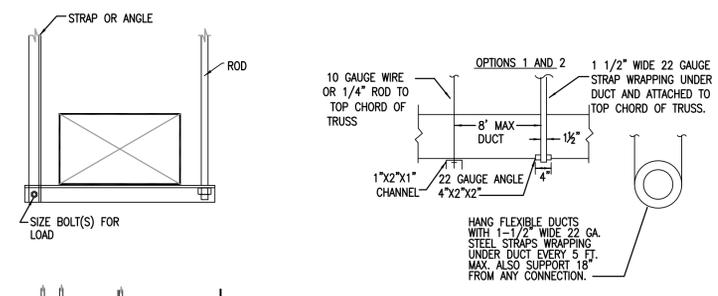
AHU EQUIPMENT PAD DETAIL
NOT TO SCALE

PLAN MARK	MODEL NO.	UNIT TYPE	FAN DATA				DESIGN CONDITIONS				COOLING DATA				HEATING DATA				FILTERS			
			TOTAL CFM	EXT. SP	MOTOR HP	VOLT/PHASE	ENTERING DB	LEAVING WB	OA CFM	SEN. MBH	TOTAL MBH	MAX VEL. FPM	COND. INLET TEMP	TEMP. °F ENT.	°F LVG.	KW	STEPS	THICK INCH	% EFF.	MAX P.D.		
			AC-9	CSM10	CENTRAL STN DX	4000	1.0	5	480/3	94	76	55.9	55.1	4000	167.55	290.0	500	95	30	60	40	2
AC-10	CSM21	CENTRAL STN DX	10430	1.5	15	480/3	69.4	61.5	54.4	53.2	2985	171.1	250.0	510	95	-	-	-	-	12"	90%	1.5
AC-11	GM4	SPLIT	1200	0.5	0.5	208/1	78	68	60.8	58.6	0	26.6	34.2	500	95	68	85	11.81	1	1"		0.2
AC-11A	PEAD-A18	SPLIT	635	0.2	3.75	208/1	76	65.3	58	57.8	0	15.2	19.0	500	95	68	85	11.81	1	1"		0.2

- NOTES:**
- AC-9 AC-10, AND AC-11 MODEL NUMBERS AND EQUIPMENT SELECTIONS ARE BASED ON TRANE. PROVIDE BASIS OF DESIGN SELECTION OR APPROVED EQUAL.
 - AC-11A MODEL NUMBER AND EQUIPMENT SELECTION IS BASED ON MITSUBISHI. PROVIDE BASIS OF DESIGN SELECTION OR APPROVED EQUAL.
 - AC-9 IS A 100% OUTDOOR AIR UNIT.
 - AC-10 SHALL HAVE 2" THICK 30% PRE-FILTER UPSTREAM OF THE 90% CARTRIDGE FILTERS.
 - AC-10 SHALL HAVE BE DUAL-CIRCUIT TYPE WITH INTERTWINED COIL.
 - SEQUENCE OF OPERATION SHALL REMAIN THE SAME AS THE EXISTING UNITS. UPDATE CONTROL SYSTEM TO IDENTIFY NEW UNIT OPERATIONS. UNIT AC-11A SHALL OPERATE INDEPENDENTLY FROM BAS, WITH MANUFACTURER PROVIDED WIRELESS THERMOSTAT CONTROL.

PLAN MARK	MANUFACTURER	MODEL NO.	COOLING CAPACITY			ELECTRICAL DATA			SYSTEM CAPACITY STEPS	
			MIN. MBH	AMB. TEMP	NO. COMP.	COMP. MCA	NO. FANS	COND. FLA(EA)		VOLT/PHASE
CU-9	TRANE	T1A 300	290.0	95	1	51.6	2	2.5	480/3	2
CU-10	TRANE	T1A 240	200.0	95	2	46.6	2	2.5	480/3	2
CU-11	TRANE	4TRW5036G1	36.0	95	1	18	1	-	208/1	1
CU-11A	MITSUBISHI	PUZ-A18	19.0	95	1	13	1	-	208/1	1

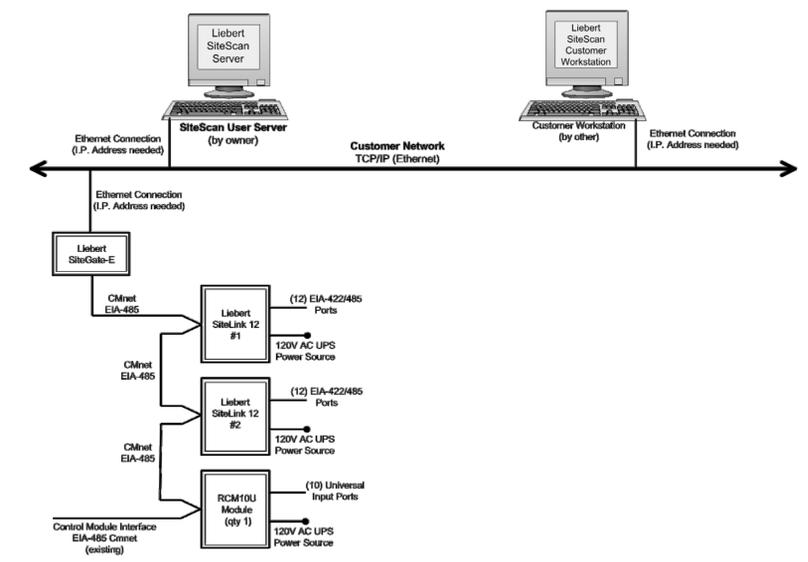
- NOTES:**
- PROVIDE UNITS TO OPERATE FOR LOW AMBIENT CONDITIONS.
 - REFRIGERANT PIPING SHALL BE SIZED BASED ON MANUFACTURER'S RECOMMENDATIONS FOR EACH SPECIFIC INSTALLATION.
 - AC-9 SHALL INCORPORATE HOT GAS REHEAT.
 - PROVIDE MANUFACTURER'S HAIL GUARD.
 - PROVIDE BASIS OF DESIGN SELECTION OR APPROVED EQUAL.



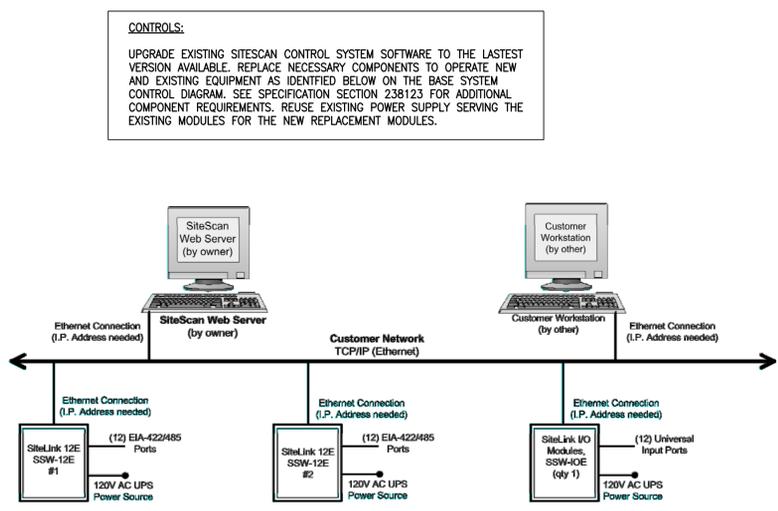
TRAPEZE HANGERS DETAIL
NOT TO SCALE

DUCT SUPPORT DETAIL
NOT TO SCALE

SGM ENGINEERING, INC.
MEP CONSULTING ENGINEERS
935 Lake Baldwin Lane
Baldwin Park, Orlando, Florida 32814
TEL: (407) 767-5188
FAX: (407) 767-5772
E9-0006208
Project number: 2013-011
www.sgmengineering.com
Copyright © 2013 SGM Engineering, Inc.



EXISTING SITESCAN BASE SYSTEM CONTROL
NOT TO SCALE



NEW SITESCAN BASE SYSTEM CONTROL
NOT TO SCALE

CONTROLS:
UPGRADE EXISTING SITESCAN CONTROL SYSTEM SOFTWARE TO THE LATEST VERSION AVAILABLE. REPLACE NECESSARY COMPONENTS TO OPERATE NEW AND EXISTING EQUIPMENT AS IDENTIFIED BELOW ON THE BASE SYSTEM CONTROL DIAGRAM. SEE SPECIFICATION SECTION 238123 FOR ADDITIONAL COMPONENT REQUIREMENTS. REUSE EXISTING POWER SUPPLY SERVING THE EXISTING MODULES FOR THE NEW REPLACEMENT MODULES.

BY: _____
DESCRIPTION: _____
NO. DATE: _____
SCALE: _____
AS NOTED
DRAWN BY: DM
PROJ. MANAGER: DM
PROJ. NO. 2012.011.G
DATE: 11/07/13
ISSUED FOR: _____
PRELIMINARY
BIDDING
PERMITTING
CONSTRUCTION
FINAL
RECORD DWG

JOHN EDWARD BALL
NOT VALID UNLESS SIGNED & EMBOSSED
BY A REGISTERED ARCHITECT
FL6883
2012.011.G
11/07/13

BENTLEY ARCHITECTS + ENGINEERS, INC.
665 WEST WAREN AVENUE, LONGWOOD, FLORIDA, 32750
T 407.331.6116 F 407.331.4666 WWW.BENTLEYARCH.COM
BPE CA NO.: 00005888
BPE&D CA NO.: AAC002023

RCC HVAC UPGRADE
ORLANDO, FLORIDA
FOR
ORANGE COUNTY
MECHANICAL DETAILS AND SCHEDULES

M-201