

**ADDENDUM #1**

**TO CONTRACT DOCUMENTS FOR:** Project #CP250271 – Clinical Support & Education-SIM Center Training Space Renovation, Phase II

**ADVERTISEMENT DATE:** February 21, 2025

**PREPARED FOR:** The Curators of the University of Missouri

**CONSULTANT:** Planning, Design & Construction  
University of Missouri  
130 General Services Building  
(573) 882-6800

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The contract documents for the above noted project and the work covered thereby and herein modified.

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**GENERAL INFORMATION:**

- 1) **CLARIFICATION:** No work shall occur in Neuro Residents Room CE511 on the 5<sup>th</sup> floor on Wednesdays.

**DRAWINGS:**

- 1) **DELETE** Drawing Sheet M600 in its entirety and **REPLACE** with Drawing Sheet M600 attached.

END OF ADDENDUM #1

**TERMINAL AIR BOX SCHEDULE - SINGLE DUCT**

NOTES:  
 1. NEITHER RADIATED NOR DISCHARGE SOUND LEVELS SHALL EXCEED NC 35 AT 1.5' INLET STATIC PRESSURE WHEN TESTED PER AHRI STANDARD 885-2008 USING 5/8" 20-LB DENSITY MINERAL FIBER CEILING TILE.  
 2. TOTAL AIR PRESSURE DROP OF TAB AND REHEAT COIL SHALL NOT EXCEED 0.50" WC.  
 3. REFER TO CONTROL DRAWINGS FOR DESCRIPTION OF CONTROL TYPE.  
 4. SENSOR TYPES: 1 - SENSOR ONLY, 2 - SENSOR WITH ADJUSTMENT, 3 - SENSOR WITH OVERRIDE, 4 - SENSOR WITH ADJUSTMENT AND OVERRIDE  
 5. HEATING COIL IS BASED ON HEATING AIR FLOW. WATER PRESSURE DROP OF REHEAT COILS SHALL NOT EXCEED 5'. PROVIDE REHEAT COILS SEPARATE FROM BOXES IF REQUIRED TO MEET WATER PRESSURE DROP REQUIREMENTS. WHEN LAT  
 "F, EWT "F, AND GPM. IF VALUES ARE BLANK, HEATING COIL IS NOT REQUIRED FOR TAB.  
 6. HEATING COIL SELECTION SHALL BE BASED ON A FIXED LEAVING AIR TEMPERATURE AND VARIABLE FLOW (GPM). PROVIDE FINAL MAXIMUM FLOW RATE (GPM) TO TEST & BALANCE TEMPERATURE CONTROLS CONTRACTORS.  
 7. OCCUPANCY SENSORS TO BE INTEGRATED IN VAV CONTROLS FOR THIS BOX.

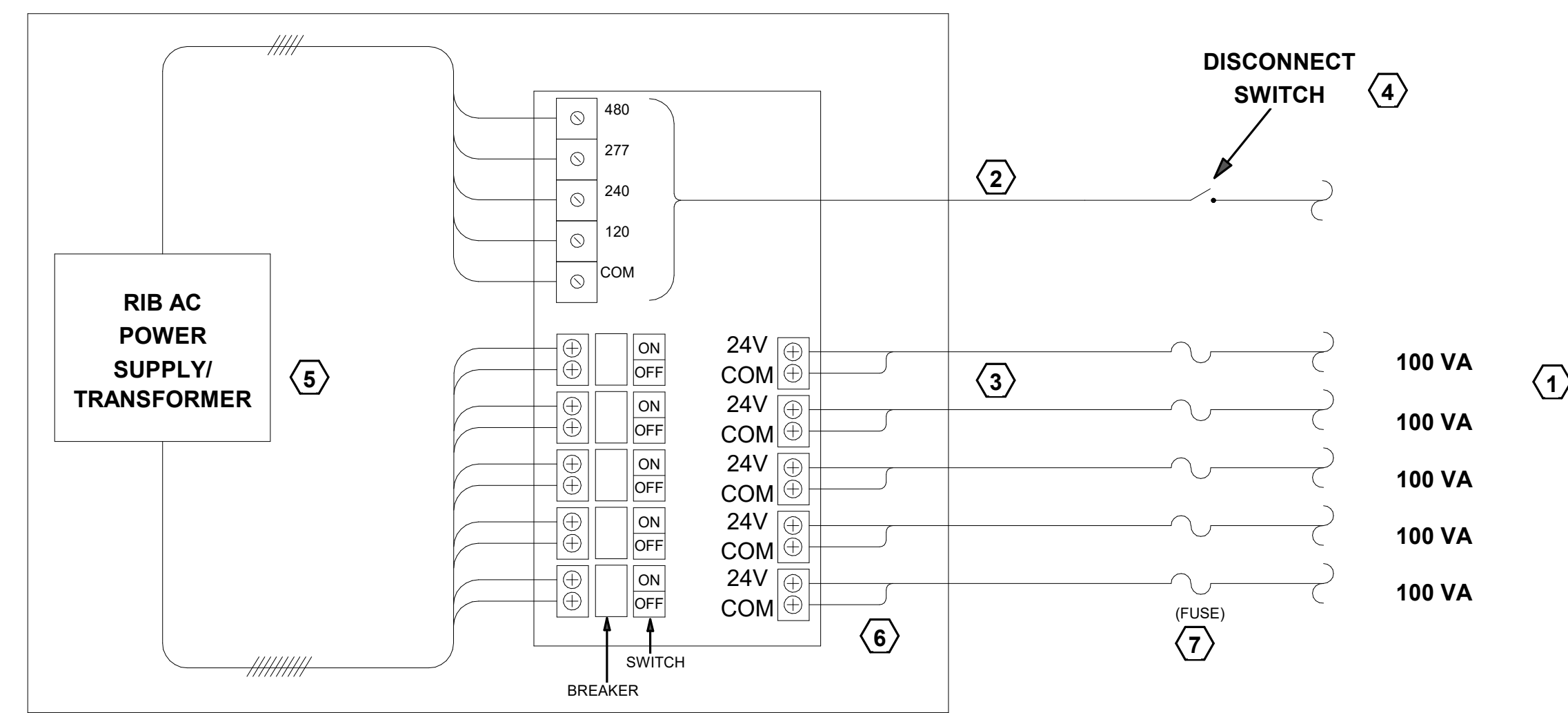
TAG NAME	CPM				HEATING COIL (NOTES 5, 6)			MIN. INLET SIZE (IN.) DIA.	SENSOR TYPE (NOTE 4)	MANUFACTURER	MODEL (NOTES 1, 2)	NOTES	
	COOLING MAX.	HEATING MAX.	OCCUPIED MIN.	UNOCCUPIED MIN.	EAT "F	LAT "F	MAX GPM						
VAV-604	570	570	570	205	55.0	95.0	180	1.2	8"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-605	390	390	390	120	55.0	95.0	180	0.8	6"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-606	730	730	730	220	55.0	95.0	180	1.6	8"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-607	780	780	780	235	55.0	95.0	180	1.7	8"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-608	930	930	930	280	55.0	95.0	180	2.0	10"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-609	600	330	330	180	55.0	95.0	180	0.7	8"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-610	380	380	380	75	55.0	95.0	180	0.8	6"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-622	550	550	550	165	55.0	95.0	180	1.2	8"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-623	100	100	100	45	55.0	95.0	180	0.5	6"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-624	100	100	100	45	55.0	95.0	180	0.5	6"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-625	100	100	100	45	55.0	95.0	180	0.5	6"	2	TITUS	DESV	NOTES 1, 2, 3, 7
VAV-626	100	100	100	45	55.0	95.0	180	0.5	6"	2	TITUS	DESV	NOTES 1, 2, 3, 7

**AIR TERMINAL SCHEDULE**

NOTES:  
 1. CONTRACTOR SHALL DETERMINE PROPER BORDER TYPE TO MATCH CEILING CONSTRUCTION.  
 2. REFER TO DRAWINGS FOR NECK SIZE. ALL BRANCH DUCTWORK TO AIR TERMINALS SHALL BE NECK SIZE UNLESS NOTED OTHERWISE.

TAG NAME	FACE SIZE (IN.) (NOTE 2)	TYPE	BORDER (NOTE 1)	MATERIAL	FINISH	MANUFACTURER	MODEL	NOTES
SD-1	24x24	PANEL FACE	LAY-IN	STEEL	WHITE	TITUS	OMNI	FLUSH FACE PANEL
RG-1	24x12	EGGCRATE GRILLE	LAY-IN	ALUMINUM	WHITE	TITUS	50F	
RG-2	24x24	EGGCRATE GRILLE	LAY-IN	ALUMINUM	WHITE	TITUS	50F	

**PSH500A ENCLOSED AC POWER SUPPLY**

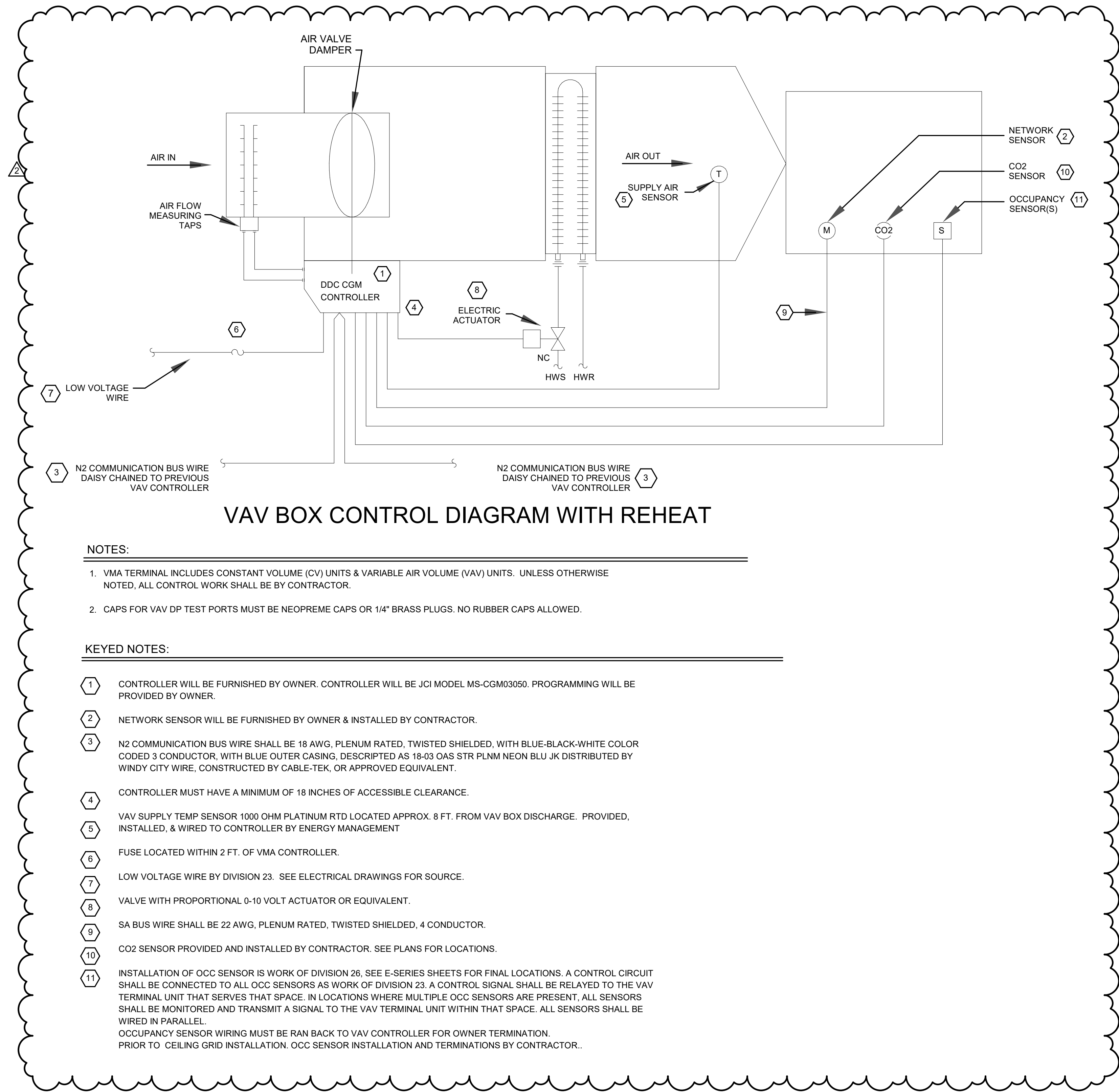


- NOTES:**
- SECONDARY LINE CAN BE RAN IN SAME CONDUIT AS FC BUS
  - ENCLOSED POWER SUPPLY MUST BE LOCATED IN ELECTRICAL ROOM, MECHANICAL ROOM, OR JANITOR'S CLOSET AND BE ACCESSIBLE. ANY OTHER LOCATION MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE

**KEYED NOTES:**

- EACH SECONDARY OUTPUT LINE CAN POWER 3-5 VAV CONTROLLERS MAXIMUM. (100 VA)
- PRIMARY LINE INFO: 480/277/240/120 Vac, #12 AWG MINIMUM
- SECONDARY LINE INFO: 24 Vac, #12-26 AWG, 100 VA, MAX LENGTH 175 FEET USING #14 AWG
- DISCONNECT SWITCH REQUIRED. EXTERNALLY MOUNTED WITHIN 12 INCHES OF RIB POWER SUPPLY
- 500VA POWER SUPPLY - INCLUDED IN RIB MODEL# PSH500A OR APPROVED EQUIVALENT
- ALL SECONDARY LINES MUST BE LABELED IN ENCLOSURE AS TO WHICH VAV'S THEY POWER PRIOR TO ENERGIZING POWER SUPPLY
- A SEPARATE 3 AMP FUSE IS REQUIRED WITHIN 3 FEET OF EACH VAV

**1 VAV BOX POWER SUPPLY DIAGRAM**  
NO SCALE

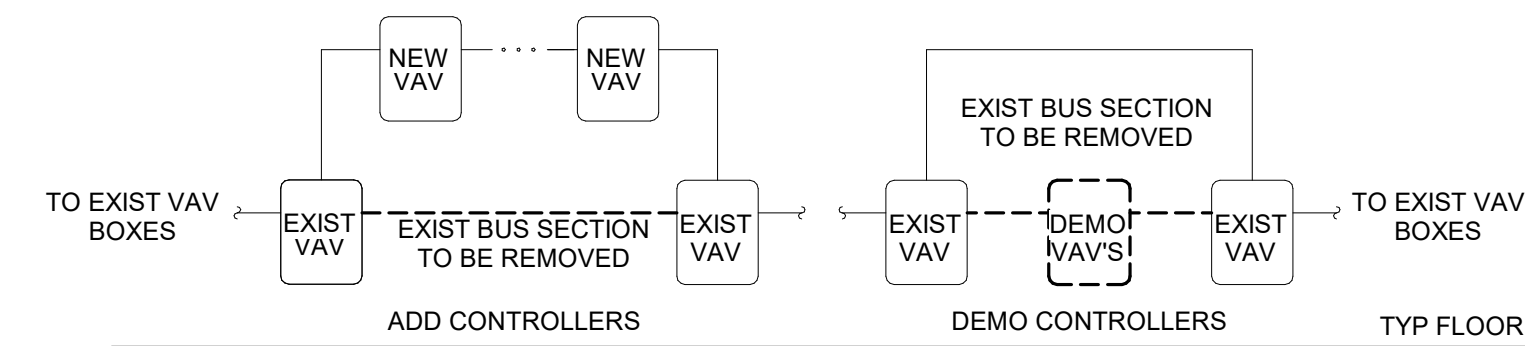


- NOTES:**
- VMA TERMINAL INCLUDES CONSTANT VOLUME (CV) UNITS & VARIABLE AIR VOLUME (VAV) UNITS. UNLESS OTHERWISE NOTED, ALL CONTROL WORK SHALL BE BY CONTRACTOR.
  - CAPS FOR VAV DP TEST PORTS MUST BE NEOPRENE CAPS OR 1/4" BRASS PLUGS. NO RUBBER CAPS ALLOWED.

**KEYED NOTES:**

- CONTROLLER WILL BE FURNISHED BY OWNER. CONTROLLER WILL BE JCI MODEL MS-CGM3050. PROGRAMMING WILL BE PROVIDED BY OWNER.
- NETWORK SENSOR WILL BE FURNISHED BY OWNER & INSTALLED BY CONTRACTOR.
- N2 COMMUNICATION BUS WIRE SHALL BE 18 AWG, PLENUM RATED, TWISTED SHIELDED, WITH BLUE-BLACK-WHITE COLOR CODED 3 CONDUCTOR, WITH BLUE OUTER CASING, DESCRIBED AS 18-03 OAS STR PLNM NEON BLU JK DISTRIBUTED BY WINDY CITY WIRE, CONSTRUCTED BY CABLE-TEK, OR APPROVED EQUIVALENT.
- CONTROLLER MUST HAVE A MINIMUM OF 18 INCHES OF ACCESSIBLE CLEARANCE.
- VAV SUPPLY TEMP SENSOR 1000 OHM PLATINUM RTD LOCATED APPROX. 8 FT. FROM VAV BOX DISCHARGE. PROVIDED, INSTALLED, & WIRED TO CONTROLLER BY ENERGY MANAGEMENT
- FUSE LOCATED WITHIN 2 FT. OF VMA CONTROLLER.
- LOW VOLTAGE WIRE BY DIVISION 23. SEE ELECTRICAL DRAWINGS FOR SOURCE.
- VALVE WITH PROPORTIONAL 0-10 VOLT ACTUATOR OR EQUIVALENT.
- SA BUS WIRE SHALL BE 22 AWG, PLENUM RATED, TWISTED SHIELDED, 4 CONDUCTOR.
- CO2 SENSOR PROVIDED AND INSTALLED BY CONTRACTOR. SEE PLANS FOR LOCATIONS.
- INSTALLATION OF OCC SENSOR IS WORK OF DIVISION 26. SEE E-SERIES SHEETS FOR FINAL LOCATIONS. A CONTROL CIRCUIT SHALL BE CONNECTED TO ALL OCC SENSORS AS WORK OF DIVISION 23. A CONTROL SIGNAL SHALL BE RELAYED TO THE VAV TERMINAL UNIT THAT SERVES THAT SPACE. IN LOCATIONS WHERE MULTIPLE OCC SENSORS ARE PRESENT, ALL SENSORS SHALL BE MONITORED AND TRANSMIT A SIGNAL TO THE VAV TERMINAL UNIT WITHIN THAT SPACE. ALL SENSORS SHALL BE WIRED IN PARALLEL.
- OCCUPANCY SENSOR WIRING MUST BE RAN BACK TO VAV CONTROLLER FOR OWNER TERMINATION. PRIOR TO CEILING GRID INSTALLATION. OCC SENSOR INSTALLATION AND TERMINATIONS BY CONTRACTOR.

**2 VAV CONTROL DIAGRAM**  
NO SCALE



- NOTES:**
- N2 BUS TO BE CONTINUOUS DAISY CHAIN WITHOUT SPLICES. CONNECTIONS CAN ONLY BE MADE AT CONTROLLERS. SEE PLANS FOR QUANTITY AND LOCATIONS OF VAV CONTROLLERS
  - BREAK BUS BETWEEN TWO EXISTING CONNECTED VAV CONTROLLERS AND REROUTE AS SHOWN FOR ADDING NEW CONTROLLERS. BUS CAN BE REROUTED IN MULTIPLE LOCATIONS TO KEEP OVERALL BUS LENGTH SHORT
  - ROUTE NEW BUS SECTION AROUND ANY CONTROLLERS TO BE REMOVED.
  - KEEP BUS INTACT THROUGHOUT PROJECT AND COORDINATE N2 BUS ROUTING AND OUTAGES WITH OWNERS REP
  - N2 COMMUNICATION BUS WIRE SHALL BE 18 AWG, PLENUM RATED, TWISTED SHIELDED, 3 CONDUCTOR, WITH BLUE OUTER CASING. DESCRIBED AS 18-03 OAS STR PLNM NEON BLU JK DISTRIBUTED BY WINDY CITY WIRE, CONSTRUCTED BY CABLE-TEK, OR APPROVED EQUIVALENT.

**3 N2 BUS DIAGRAM**  
NO SCALE



**MEP CONSULTANT**

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**STRUCTURAL CONSULTANT**

CROCKETT ENGINEERING CONSULTANTS  
 1000 W. NIFONG BOULEVARD, BUILDING 1  
 COLUMBIA, MO 65203  
 PH: 573.447.0292



FOR THE CURATORS OF  
 THE UNIVERSITY OF MISSOURI

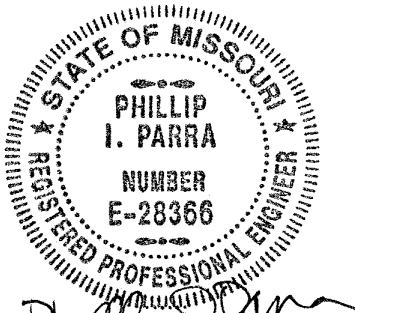
**CLINICAL SUPPORT & EDUCATION - SIM CENTER TRAINING SPACE RENOVATION PHASE II**

**ISSUED FOR BID**

5 HOSPITAL DR.  
 COLUMBIA, MO 65201

DATE: 02/21/2025  
 PROJ. NO.: CP250271  
 DESIGNED BY: CSB  
 DRAWN BY: CSB  
 CHECKED BY: SGB  
 APPROVED BY: SGB

SEAL:



02-21-2

PHILLIP I. PARRA - ENGINEER  
 MO# E-28366

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NO.	REVISION	SUBMISSION	DATE
1	ISSUED FOR BID		02/21/2025
2	ADDENDUM 1		03/07/2025

**HVAC SCHEDULES**

**M600**