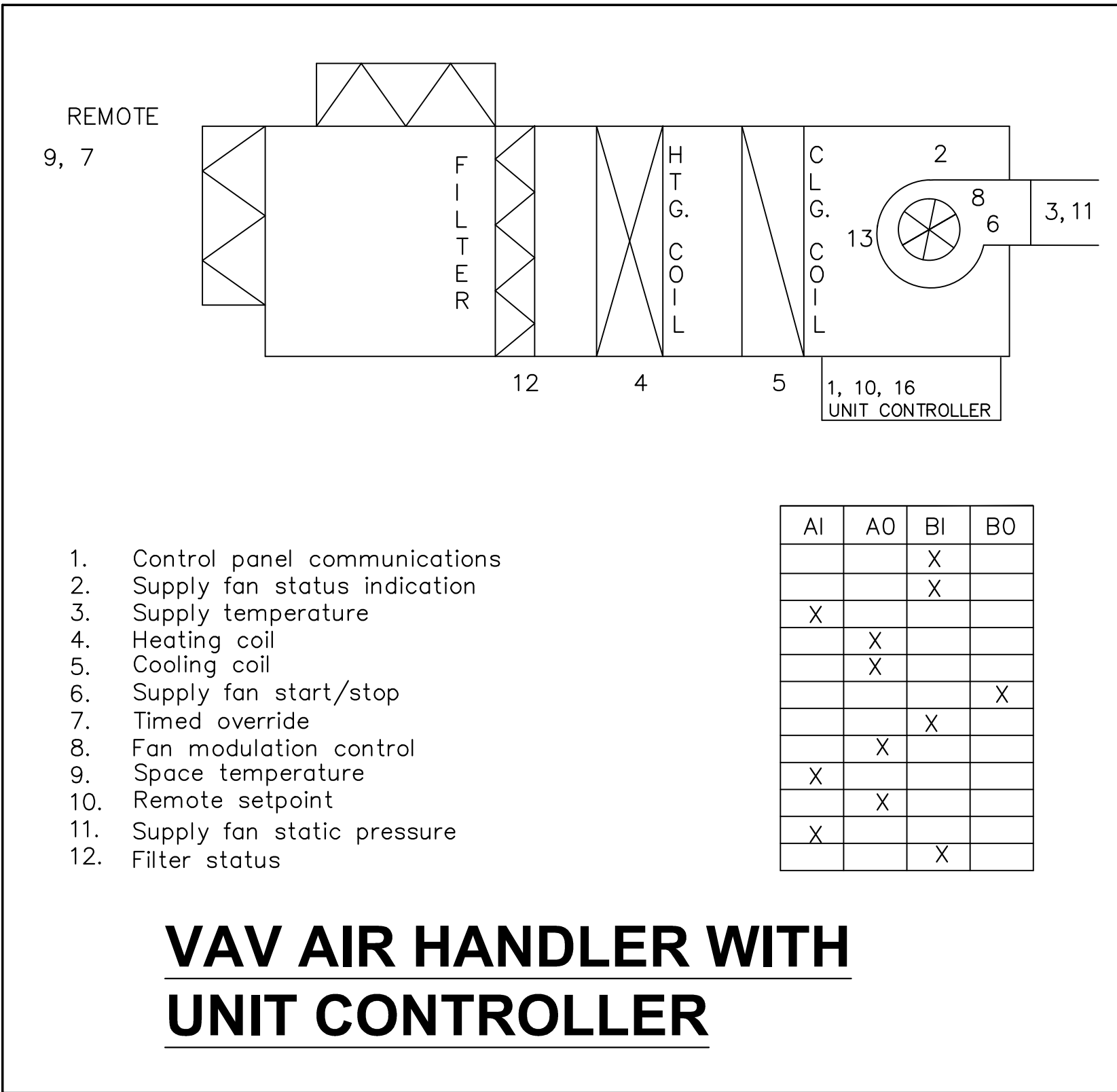


BUILDING AUTOMATION SYSTEM INTER-TRADE RESPONSIBILITY MATRIX

FMS = FACILITY MANAGEMENT SYSTEM/BUILDING AUTOMATION SYSTEM CONTRACTOR 15 = DIVISION 15 CONTRACTOR (PLUMBING OR HVAC) 16 = DIVISION 16 CONTRACTOR (ELECTRICAL CONTRACTOR) 17 = DIVISION 17 CONTRACTOR (FIRE ALARM)					
Work		Furnish	Install	Low Voltage Wire & Conduit	Line Power & Conduit
1	Not Used	—	—	—	—
2	Automation dampers	FMS	15	FMS	FMS
3	Manual valves, dampers	15	15	—	—
4	Automatic valves	FMS	15	FMS	FMS
5	Exhaust Fan Controls	FMS	FMS	FMS	16
6	HVAC Unit controllers	FMS	FMS	FMS	16
7	Domestic Water Heater/Pump Controls	FMS	FMS	FMS	16
8	Thermostats (Temp/Humidity)	FMS	FMS	FMS	—
9	Duct Smoke Detectors (shown on plans)	17	15	FMS	17/16
10	VAV Boxes with Reheat	15	15	FMS	16
11	FMS Nodes, equipment, housings, enclosures and panels and power from Div. 16 panels	FMS	FMS	FMS	FMS
12	FMS software, firmware and project specific software configurations and database entries	FMS	FMS	FMS	—
13	FMS low voltage and communication wiring FMS conduits and raceway	FMS	FMS	FMS	—
14	Control Relays	FMS	FMS	FMS	—
15	FMS network routers, bridges, hubs and associated cabling	FMS	FMS	FMS	—
16	VAV Box Nodes	FMS	15	FMS	FMS
17	Pump Flow Switches	15	15	FMS	—
18	Variable Frequency Drives	FMS	15	FMS	16
19	Not Used	—	—	—	—
20	Control Dampers	FMS	15	FMS	—
21	Not Used	—	—	—	—
22	Not Used	—	—	—	—
23	Not Used	—	—	—	—
24	Pipe insertion devices and taps including thermowells flow and pressure stations, etc. <u>requiring</u> DDC interface	FMS	15	FMS	FMS
25	Pipe insertion devices and taps including thermowells flow and pressure stations, etc. <u>not</u> requiring DDC interface	15	15	—	—
26	CO2 Detector for control of osa motorized dampers (where required by plans)	FMS	15	FMS	FMS
NOTE: SMOKE DETECTORS MUST BE COORDINATED WITH THE FIRE ALARM CONTRACTOR.					

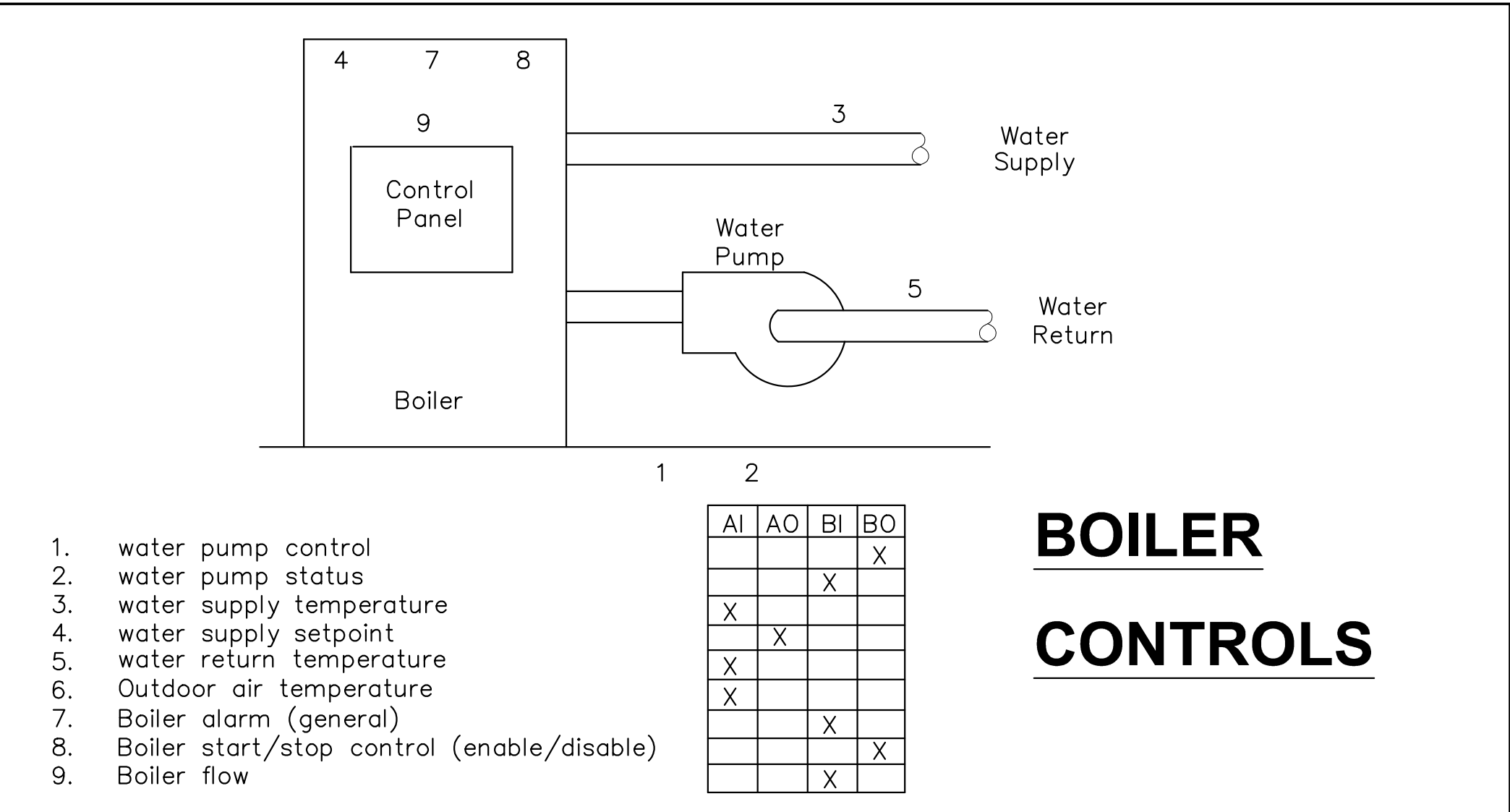


VAV AIR HANDLING UNIT

SYSTEM POINT DESCRIPTION	ANALOG												BINARY		SYSTEM FEATURES												NOTES		
	Input						Output						Input	Output	Alarms				Programs										
	TEMPERATURE	PRESSURE	FLOW	DIFF. PRESS.	STATUS	SETPOINT	DOE (DOE = 0-100)	SETPOINT	DOE (DOE = 0-100)	SETPOINT	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)	DOE (DOE = 0-100)		DOE (DOE = 0-100)	
AIR HANDLING UNITS (VARIABLE VOLUME)																													
AHU CONTROL PANEL	X																												UNIT MOUNTED
SUPPLY FAN	X																												VFD DRIVE
DISCHARGE STATIC	X	X																											
FAN MODULATION	X																												IGV/INVERTER
SUPPLY AIR	X	X																											
HEATING COIL	X																												
COOLING COIL	X																												
TIMED OVERRIDE	X																												
FILTER STATUS	X																												
VFD	X																												
RETURN AIR	X	X																											
OUTSIDE AIR	X	X																											
MIXED AIR LOW LIMIT	X																												
CHILLED WATER SUPPLY	X	X																											
CHILLED WATER RETURN	X	X																											
HOT WATER SUPPLY	X	X																											
HOT WATER RETURN	X	X																											
GENERAL NOTES: _____																													

CONSTANT VOLUME AIR HANDLER CONTROLS

SYSTEM POINT DESCRIPTION	ANALOG												BINARY				SYSTEM FEATURES												NOTES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Input						Output						Input		Output		Alarms				Programs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	TEMPERATURE	PRESSURE	FLOW	DIFF. PRESS.	STATUS	SETPOINT	DOE (AIR-REF, COIL-REF)	SETPOINT	DOE (AIR-REF, COIL-REF)	STATUS	SETPOINT	DOE (AIR-REF, COIL-REF)	SETPOINT	DOE (AIR-REF, COIL-REF)	REF ON	LOCK	UNLOCK/RESET	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG		LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW ANALOG	LOW 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HVAC BUILDING AUTOMATION SYSTEM DETAILS - BUILDING 83

Revisions	Date

MCE
MILLS-CONOLY
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TELEPHONE: (334) 270-0010

Montgomery, AL 36117
FAX: (334) 270-0040

CAVHCS
Central Alabama Veterans Health Care System

Approved:	
Approved:	
Approved:	
Approved:	

Approved:	
Approved:	
Approved:	
Approved:	

Drawing Title	HVAC BUILDING AUTOMATION SYSTEM DETAILS - BUILDING 83
Safety Officer	
Clinical Representative	

Project Title	HVAC MODIFICATIONS TO BUILDINGS 83, 90, & 93 TUSKEGEE, ALABAMA
Building Number	83
Checked	RDW
Drawn	TSC
Location	East Campus, Tuskegee, AL

Date	12/21/10
Project No.	619-10-445
Drawing No.	83M4.1
Drawn	11 of 59

Veterans
Administration

WHORTON ENGINEERING, INC.

HVAC - PLUMBING - PROCESS CONTROL

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WHORTON ENGINEERING PROJECT NO. 10159

