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SEAL

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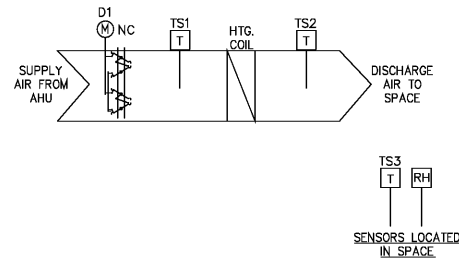
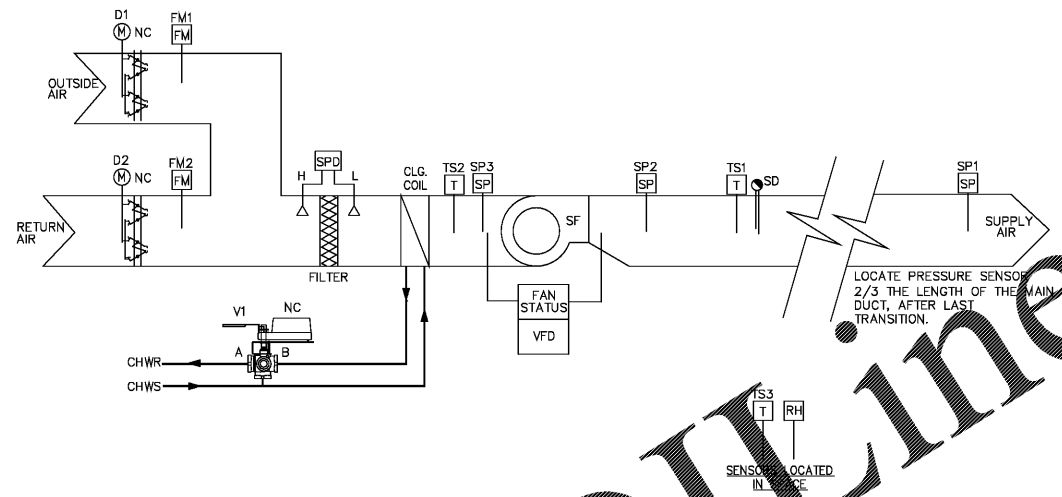
SCALE: N.T.S.

MECHANICAL DETAILS

SHEET NUMBER

M-6.4

X OF X



	CONTROL POINT MATRIX					
	ANALOG			DIGITAL		SYSTEM POINTS
	INPUT	OUTPUT	INPUT	OUTPUT		
TEMPERATURE						
HUMIDITY						
SETPOINT ADJUSTMENT						
HEATING ELEMENT						
DAMPER POSITION						
VAV DAMPER (TS1)	X		X			X X X
HEATING COIL (TS2)	X		X			X X
CONDITIONED SPACE (TS3)	X	X	X			X X

SEQUENCE OF OPERATION:
 THE VARIABLE AIR VOLUME SINGLE DUCT TERMINAL UNIT SHALL BE CONTROLLED BASED ON AN 7-DAY TIME SCHEDULE WITH OCCUPIED AND UNOCCUPIED MODES OR TEMPERATURE/HUMIDITY OVERRIDE.

OCCUPIED MODE:
 THE VAV AIR DAMPER (D1) SHALL MODULATE TOWARD THE OPEN POSITION TO MAINTAIN A SPACE TEMPERATURE SETPOINT (TS3) OF 75 DEG. F (ADJUSTABLE). WHEN SPACE TEMPERATURE SETPOINT (TS3) DROPS BELOW 74 DEG. F, THE VAV AIR DAMPER (D1) SHALL BE COMMANDED TO MODULATE TOWARDS THE CLOSED POSITION. UPON A FURTHER DROP IN SPACE TEMPERATURE, THE ELECTRIC HEATING ELEMENT SHALL BE ACTIVATED TO MAINTAIN A SPACE HEATING TEMPERATURE SETPOINT (TS3) OF 70 DEG. F. (ADJUSTABLE).

HUMIDITY OVERRIDE MODE:
 UPON A RISE IN SPACE HUMIDITY SETPOINT ABOVE 60% RH THE VAV AIR DAMPER (D1) SHALL MODULATE TOWARD THE OPEN POSITION TO MAINTAIN A DISCHARGE AIR TEMPERATURE SETPOINT (TS2) OF 55 DEG. F (ADJUSTABLE) AND THE ELECTRIC HEATING ELEMENT SHALL BE ACTIVATED TO MAINTAIN A SPACE TEMPERATURE SETPOINT (TS3) OF 75 DEG. F OCCUPIED OR 80 DEG. F UNOCCUPIED. (ADJUSTABLE).

UPON SATISFYING THE SPACE AIR HUMIDITY SETPOINT OR 60% RH (ADJUSTABLE) THE HUMIDITY OVERRIDE MODE SHALL END AND SHALL NOT BE ALLOWED TO RESTART FOR 15 MINUTES (ADJUSTABLE).

VAV BOX w/ELECTRIC COIL SCHEMATIC
 N.T.S.

	CONTROL POINT MATRIX							
	ANALOG				DIGITAL		SYSTEM POINTS	
	INPUT	OUTPUT	INPUT	OUTPUT	INPUT	OUTPUT	ALARM	FAILURE
AIR FLOW VOLUME								
TEMPERATURE								
HUMIDITY								
FILTER STATIC PRESSURE								
DIFFERENTIAL								
STATIC PRESSURE								
DAMPER POSITION								
VALVE POSITION								
FAN SPEED								
STATUS								
OUTSIDE AIR DAMPER (D1)							X	X
FLOW METER (FM1)	X							X
RETURN AIR DAMPER (D2)								X X
FLOW METER (FM2)	X							X
AIR FILTERS			X					X X
COOLING COIL (TS2)	X				X			X X
LOW STATIC PRESSURE SENSOR (SP3)								X
SUPPLY FAN					X	X		X X
HIGH STATIC PRESSURE SENSOR (SP2)								X
SUPPLY AIR (TS1)	X							X X
SMOKE DETECTOR								X
STATIC PRESSURE SENSOR (SP1)			X					X X

SEQUENCE OF OPERATION:
 THE AIR HANDLER SUPPLY FAN SHALL BE COMMANDED TO INCREASE/DECREASE FAN SPEED BASED ON A STATIC PRESSURE SENSOR (SP1). WHEN THE STATIC PRESSURE SENSOR (SP1) MEASURES A STATIC PRESSURE LESS THAN 1 INCH WATER PRESSURE (ADJUSTABLE) THE SUPPLY FAN SHALL INCREASE SPEED. WHEN THE STATIC PRESSURE SENSOR (SP1) MEASURES A STATIC PRESSURE GREATER THAN 1 INCH WATER PRESSURE (ADJUSTABLE) THE SUPPLY FAN SHALL DECREASE SPEED.

WITH THE SUPPLY FAN ACTIVE AT ANY SPEED THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL BE MODULATED TO MAINTAIN AN OUTSIDE AIR VOLUME OF 475 CFM (ADJUSTABLE).

UPON A CALL FOR COOLING FROM ANY OF THE SPACES OR VAV BOXES IN HUMIDITY OVERRIDE MODE THE RETURN AIR COIL CHILLED WATER VALVE (V1) SHALL MODULATE TO MAINTAIN A RETURN AIR COOLING TEMPERATURE SETPOINT (TS2) OF 55 DEG. F (ADJUSTABLE).

AHU-2 AIR HANDLER w/VFD SCHEMATIC
 N.T.S.

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Order Plans