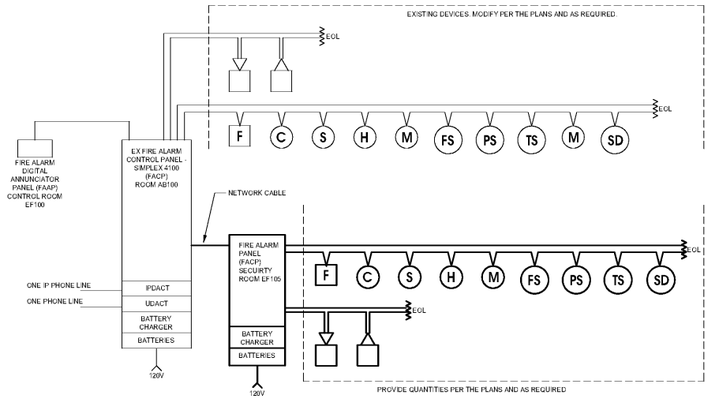
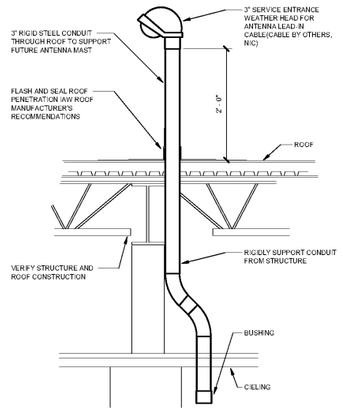
FIRE ALARM / SMOKE CONTROL MATRIX

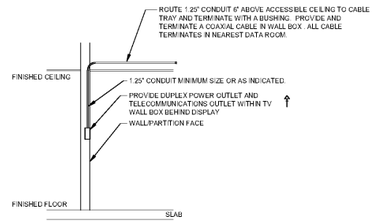
EVENT ZONE	SMOKE DETECTORS	DUCT SMOKE DETECTOR SYSTEM ID TAG(S)	FLOW SWITCH SYSTEM ID TAG(S)	DAMPER		EQUIPMENT	
				FAN DAMPERS OPEN	DAMPERS CLOSE	ON	OFF
SMOKE ZONE 1	REFER TO COM/M PLANS	EXISTING DUCT DETECTORS FOR RTU'S	EXISTING	DAMPERS FOR RTU SUPPLY, EF'S AND OUTSIDE AIR	RETURN DAMPER FOR RTU'S	EF-8B,EF-8C,EF-8D,EF-8E,RTU-8B,RTU-8C,RTU-8D,RTU-8E	-
SMOKE ZONE 2	REFER TO COM/M PLANS	EXISTING DUCT DETECTORS FOR RTU'S	EXISTING	DAMPERS FOR RTU SUPPLY, EF'S AND OUTSIDE AIR	RETURN DAMPER FOR RTU'S	EF-9F,EF-9G,EF-9H,EF-9I, RTU-9F,RTU-9G,RTU-9H,RTU-9I	-
SMOKE ZONE 3	REFER TO COM/M PLANS	DSD-GP-1, DSD-GP-2A&B, DSD-RTU-1A&B	REFER TO COM/M PLANS	D-SSF-1, D-SEF-1, D-SSF-2, D-SEF-2, D-SSF-3, D-SEF-3	-	SSF-1, SEF-1, SSF-2, SEF-2, SSF-3, SEF-3	GP-1, GP-2A&B, RTU-1A&B



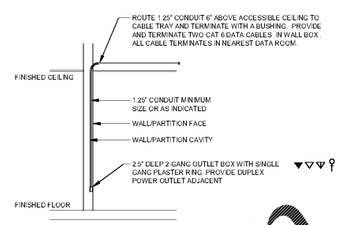
FIRE ALARM RISER DIAGRAM
NO SCALE



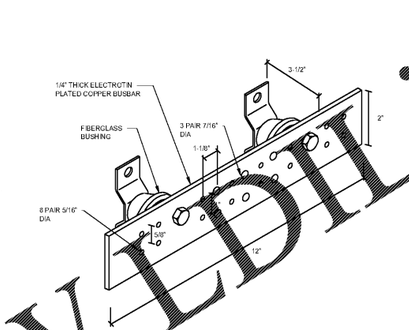
WEATHERHEAD ROOF PENETRATION DETAIL
NO SCALE



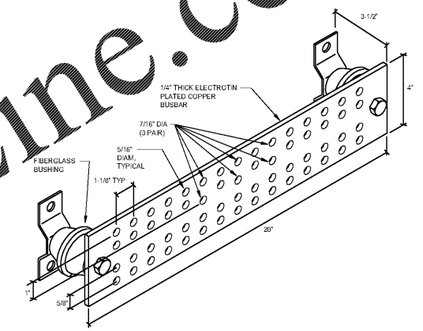
DISPLAY OUTLET CONDUIT DETAIL
NO SCALE



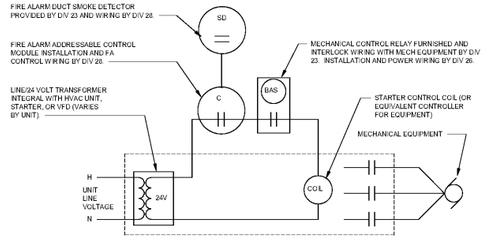
TELECOMMUNICATIONS OUTLET CONDUIT DETAIL
NO SCALE



TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) DETAIL
NO SCALE



TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB) DETAIL
NO SCALE



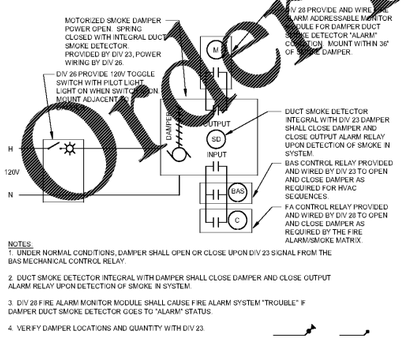
SYSTEMS WITH MULTIPLE MOTORS REQUIRE ONE SHUTDOWN RELAY FOR EACH STARTER OR VFD. THERE MAY BE MORE THAN ONE DUCT SMOKE DETECTOR PER SYSTEM, BUT ONLY ONE CONTROL MODULE IS REQUIRED PER MOTOR. SHUTDOWN IS VIA CONTROL MODULE, NOT VIA DUCT DETECTOR AUX CONTACTS. COORDINATE W/ DIV 23.

UNDER NORMAL CONDITIONS, FA SYSTEM POWERS THE NORMALLY OPEN FA CONTROL MODULE CONTACT TO THE CLOSED POSITION TO ALLOW NORMAL UNIT CONTROL BY BAS.

UPON ALARM SIGNAL FROM THE FIRE ALARM SYSTEM, THE CONTACTS IN THE FA SYSTEM RELEASES CONTROL MODULE TO OPEN POSITION, CAUSING SHUTDOWN OF ASSOCIATED HVAC EQUIPMENT. HVAC EQUIPMENT SHALL NOT BE OPERABLE UNTIL FA CONTROL MODULE IS RESET TO NORMAL CLOSED POSITION.

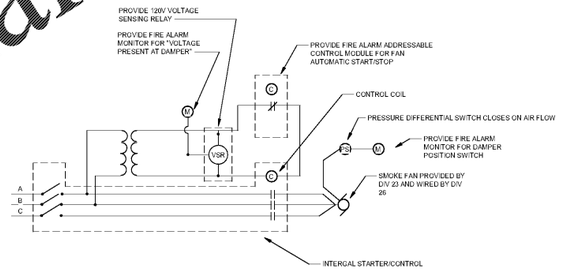
DIVISION 23 SHALL PROVIDE WIRING BETWEEN BETWEEN FA AND BAS CONTROL MODULES AND HVAC EQUIPMENT CONTROLLER (STARTER, VFD, OR INTEGRAL CONTROL PANEL).

FIRE ALARM HVAC UNIT SHUTDOWN WIRING DIAGRAM1 (E1)
NO SCALE



NOTES:
1. UNDER NORMAL CONDITIONS, DAMPER SHALL OPEN OR CLOSE UPON DIV 23 SIGNAL FROM THE BAS MECHANICAL CONTROL RELAY.
2. DUCT SMOKE DETECTOR INTEGRAL WITH DAMPER SHALL CLOSE DAMPER AND CLOSE OUTPUT ALARM RELAY UPON DETECTION OF SMOKE IN SYSTEM.
3. DIV 28 FIRE ALARM MONITOR MODULE SHALL CAUSE FIRE ALARM SYSTEM "TROUBLE" IF DAMPER DUCT SMOKE DETECTOR GOES TO "ALARM" STATUS.
4. VERIFY DAMPER LOCATIONS AND QUANTITY WITH DIV 23.

FIRE/SMOKE DAMPER & SMOKE DAMPER WIRING DIAGRAM
NO SCALE



NOTES:
THIS DIAGRAM DOES NOT INDICATE ALL ELEMENT OF THE FAN CONTROLLER, COORINATE ACTUAL INSTALLATION WIRING WITH EQUIPMENT PROVIDER

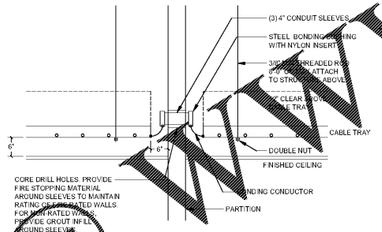
UNDER NORMAL OPERATION, FA SYSTEM HOLDS CONTROL MODULE CONTACT CLOSED TO KEEP FAN OFF.

UNDER NORMAL FAN IS OFF AND OPEN PDS MONITOR SHALL INDICATE "NORMAL". A CLOSED PDS MONITOR SHALL INDICATE "FAULT" CONDITION ON THE SMOKE CONTROL PANEL AS WELL AS "TROUBLE" ON THE FIRE ALARM PANEL

AT ANY TIME, IF FAN POWER IS LOST AS DETERMINED BY FA MONITOR OF VOLTAGE SENSING RELAY, THE SMOKE CONTROL SYSTEM SHALL INDICATE "FAULT" CONDITION FOR THE ASSOCIATED ACU LED AT THE SMOKE CONTROL PANEL, AS WELL AS "TROUBLE" AT THE FIRE ALARM CONTROL PANEL.

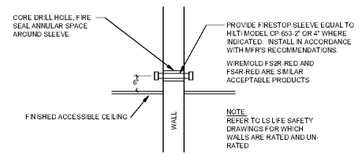
UPON SMOKE CONTROL SYSTEM ACTIVATION SIGNAL FROM THE FIRE ALARM SYSTEM, THE CONTACTS IN THE FA CONTROL MODULE SHALL CLOSE AND START THE FAN.

SMOKE CONTROL DAMPER WIRING DIAGRAM
NO SCALE

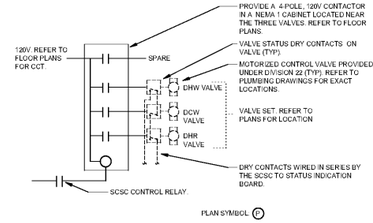


COORD W/ CABLE TRAY WALL PENETRATIONS

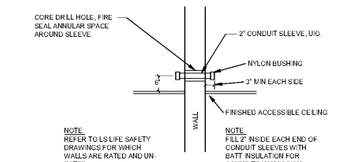
CABLE TRAY WALL PENETRATION DETAIL
NO SCALE



RATED WALL CONDUIT SLEEVE DETAIL
NO SCALE



ISOLATION VALVE CONTROL DETAIL
NO SCALE



UN-RATED WALL CONDUIT SLEEVE DETAIL
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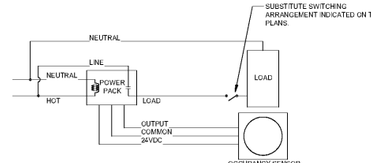
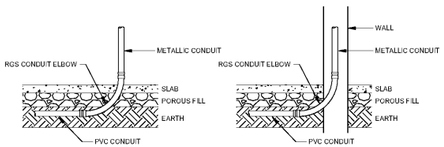
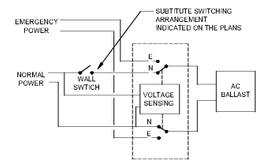


OCCUPANCY SENSOR DIAGRAM DETAIL
NO SCALE



PVC TO EMT TRANSITION DETAIL
NO SCALE



GTR RELAY DETAIL
NO SCALE

MOSELEY ARCHITECTS
6210 ARDREY KELL ROAD - THE HUB AT WAVERLY SUITE 425 - CHARLOTTE, NC 28277
PHONE (704) 540-3755 FAX (704) 540-3754
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SOUTH CAROLINA REGISTERED ARCHITECT WILLIAM J. CARY No. 34883 10/30/20

MOSELEY ARCHITECTS No. 3983 SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION

MARION COUNTY LEC
591492
MARION COUNTY
2715 EAST HWY 76, MULLINS, SC 29574

PROJECT NO: 591492	
DATE:	OCTOBER 30, 2020
REVISIONS	
DATE	DESCRIPTION

ELECTRICAL DETAILS

E4.1

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