

FOR QUESTIONS, CALL THE

Highwoods Group
REGION 40
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PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

HOOD INFORMATION - JOB#6239314

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)						MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL				SP	END TO END	ROW
1		5424 ND-2-ACPSP-F	CAPTIVEAIRE	12' 9"	600 DEG	I	HEAVY	200	2550	10'	24'	4'		2550	1530	-0.966'	1300	696	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)				LIGHT(S)			UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT			
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM TYPE			SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY
1		CAPRATE SOLO FILTER	9	16"	16"	85% SEE FILTER SPEC	8	L55 SERIES E26	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0	SC-311110MA	1 LIGHT 1 FAN	YES	1192 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 10.00' HIGH FRONT, LEFT, RIGHT. INSULATION FOR BACK OF HOOD. RISER SENSOR INSTALL 6IN PLEN. RIGHT VERTICAL END PANEL 27' TOP WIDTH, 21' BOTTOM WIDTH, 80' HIGH INSULATED 430 SS. LEFT VERTICAL END PANEL 27' TOP WIDTH, 21' BOTTOM WIDTH, 80' HIGH INSULATED 430 SS. FULL DIMENSION HANGING BRACKET - FRONT.

SPECIFICATION: CAPRATE® GREASE-STOP® SOLO FILTER

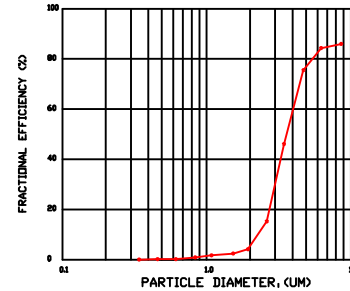
THE CAPRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

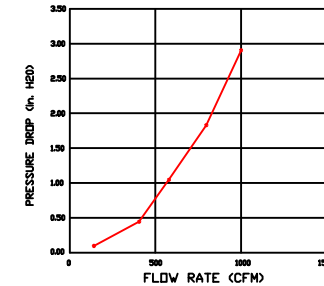
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER. EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE

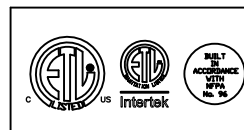


CAPRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



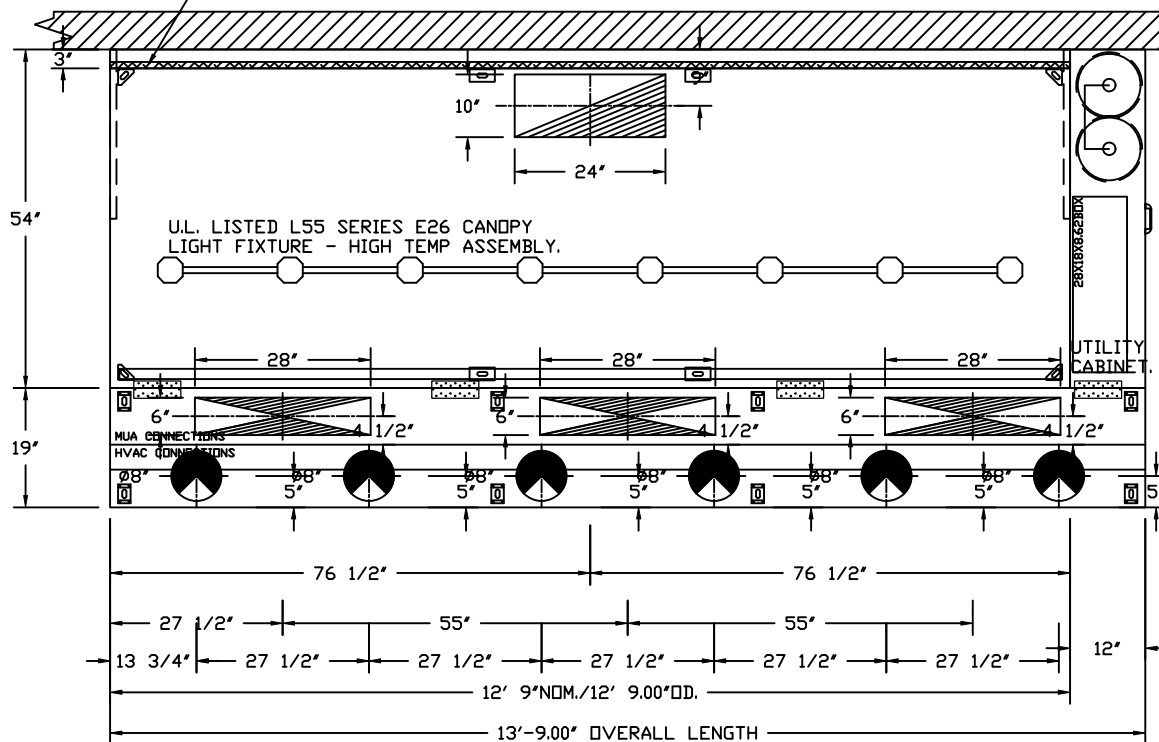
PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1		Front	165'	19'	6'	MUA	6"	28"		432	0.127"
						MUA	6"	28"		432	0.127"
						MUA	6"	28"		432	0.127"
						AC			8"	116	0.043"
						AC			8"	116	0.043"
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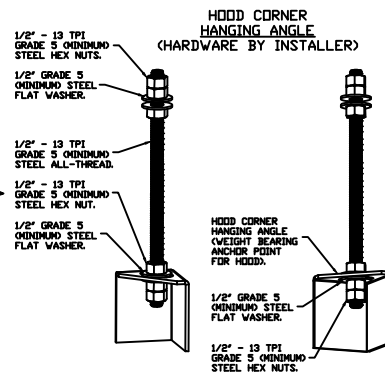
JOBCHIPOTLE AVON NORTH #4945	
LOCATION AVON, OH, 44011	
DATE 9/25/2023	JOB # 6239314
DWG # 1	DRAWN BY JMB-40
REV.	SCALE 3/8" = 1'-0"

1" LAYER OF INSULATION FACTORY
 INSTALLED IN INTERNAL BACK STANDOFF.
 MEETS 0 INCH REQUIREMENTS FOR
 CLEARANCE TO COMBUSTIBLE SURFACES.



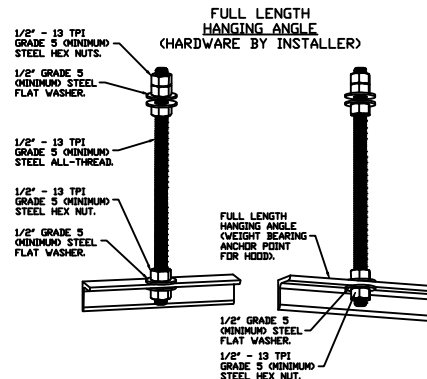
PLAN VIEW - HOOD #1
 12' 9.00" LONG 5424ND-2-ACSP-F
 NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

ACSP SHIPS LOOSE FOR FIELD INSTALLATION



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



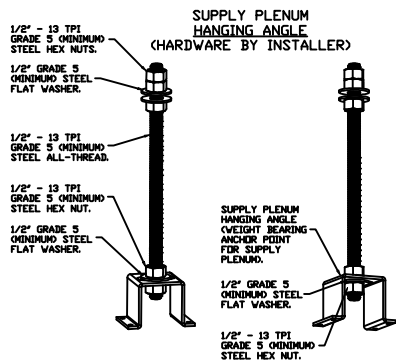
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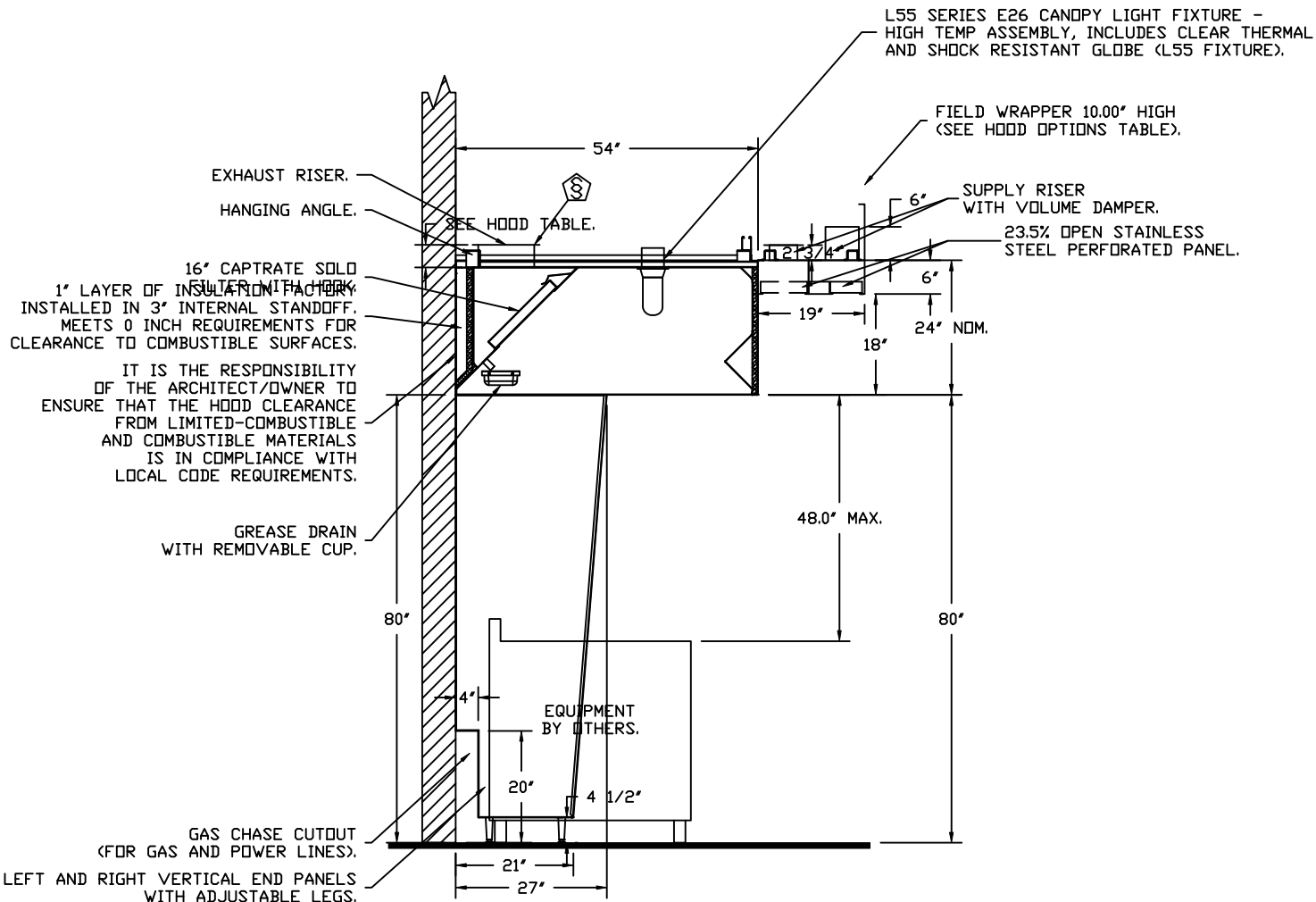
CAPTIVEAIRE

JOB CHIPOTLE AVON NORTH #4945	
LOCATION AVON, OH, 44011	
DATE 9/25/2023	JOB # 6239314
DWG # 2	DRAWN BY JMB-40
REV.	SCALE 3/8" = 1'-0"



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



**SECTION VIEW - MODEL 5424ND-2-ACPSP-F
HOOD - #1**

FIRE SYSTEM INFORMATION - JOB#6239314

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	32	FIRE CABINET RIGHT	RIGHT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS



JOB CHIPOTLE AVON NORTH #4945

LOCATION AVON, OH, 44011

DATE 9/25/2023

JOB # 6239314

DWG # 3

DRAWN BY JMB-40

REV.

SCALE 3/8" = 1'-0"

EXHAUST FAN INFORMATION - JOB#6239314

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1	EF-1	1	DUI80HFA	CAPTIVEAIRE	2550	1.450	1230	DDP,PREMIUM	2.000	1.2790	3	208	8.3	589 FPM	183	16.9
2	EF-2	1	DR12HFA	CAPTIVEAIRE	150	0.600	1293	TEAD-ECM	0.250	0.0940	1	115	2.9		50	6.2

MUA FAN INFORMATION - JOB#6239314

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCF	WEIGHT (LBS)	SDNES
3	MAU-1	1	A1-D.250-15D	15MF-1-MDD	A1-D.250	1000	1300	0.500	1553	DDP,PREMIUM	1.000	0.5640	3	208	3.1	3.9A	15A	495	12.2

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
3	MAU-1	94604	87036	64°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	GREASE BDX
		1	2 YEAR PARTS WARRANTY
2	EF-2	1	I 12-BDD DAMPER
		1	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCD MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
3	MAU-1	1	SIZE 1 TEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	SHIP LOOSE GAS STRAINER 3/4"
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV DR PREWIRE WITH VFD) - THREE PHASE ONLY
1	2 YEAR PARTS WARRANTY		

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	EF-1	YES						
2	EF-2		YES					
3	MAU-1					YES		

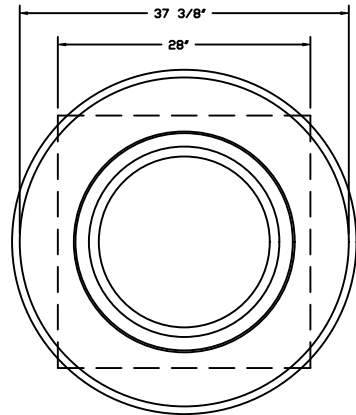
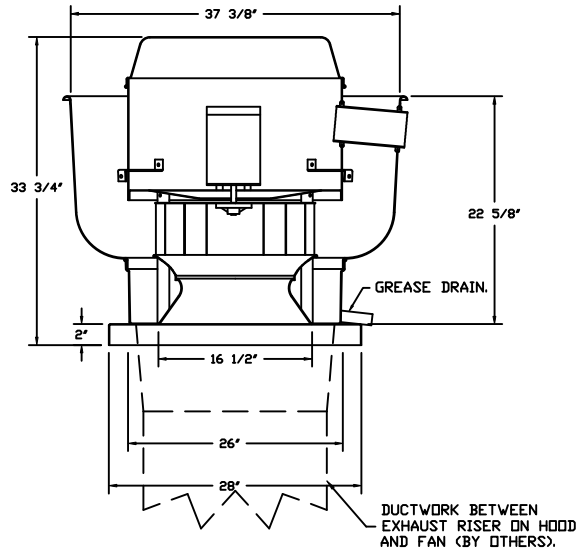
CURB ASSEMBLIES

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF-1	37 LBS	CURB	26.500"W X 26.500"L X 20.000"H VENTED.
2	# 2	EF-2	31 LBS	CURB	17.500"W X 17.500"L X 26.000"H.
3	# 3	MAU-1	65 LBS	CURB	21.000"W X 71.000"L X 20.000"H INSULATED.



JOBCHIPOTLE AVON NORTH #4945	
LOCATION AVON, OH, 44011	
DATE 9/25/2023	JOB # 6239314
DWG # 4	DRAWN BY JMB-40
REV.	SCALE 3/8" = 1'-0"

FAN #1 DU180HFA - EXHAUST FAN (EF-1)



TOP VIEW

FEATURES:

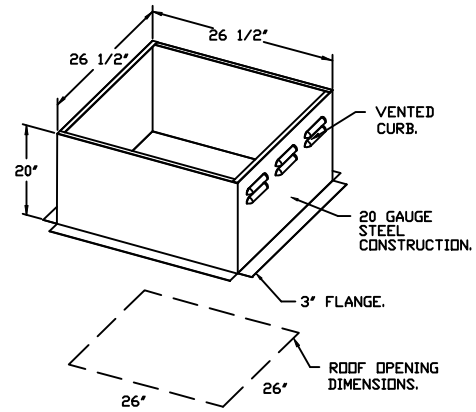
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

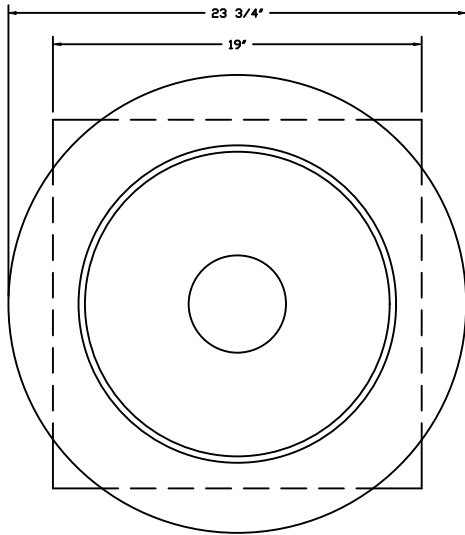
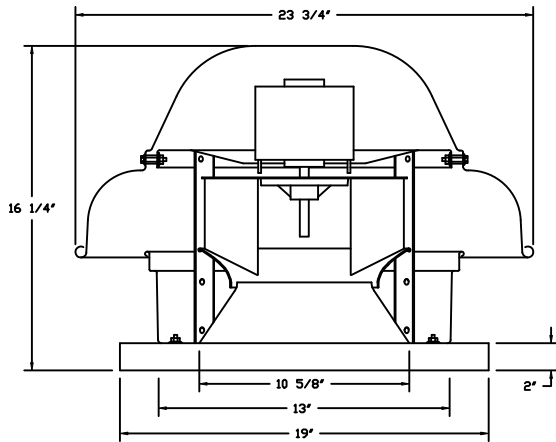
OPTIONS

- GREASE BOX.
- 2 YEAR PARTS WARRANTY.



JOB CHIPOTLE AVON NORTH #4945	
LOCATION AVON, OH, 44011	
DATE 9/25/2023	JOB # 6239314
DWG # 5	DRAWN BY JMB-40
REV.	SCALE 3/8" = 1'-0"

FAN #2 DRI2HFA - EXHAUST FAN (EF-2)



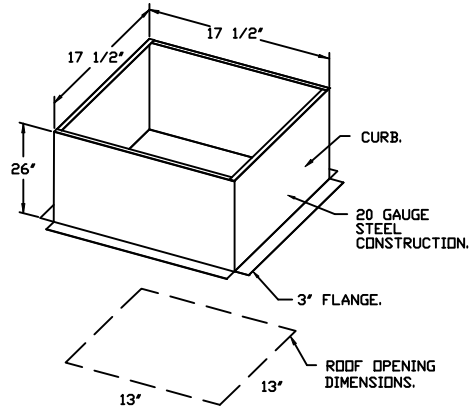
TOP VIEW

FEATURES:

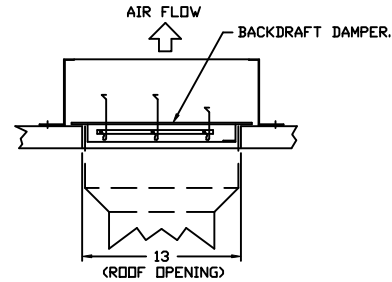
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).

OPTIONS

- I 12-BDD DAMPER.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



BACKDRAFT DAMPER INSTALLATION



CAPTIVEAIR

JOBCHIPOTLE AVON NORTH #4945	
LOCATION AVON, OH, 44011	
DATE 9/25/2023	JOB # 6239314
DWG # 6	DRAWN BY JMB-40
REV.	SCALE 3/8" = 1'-0"

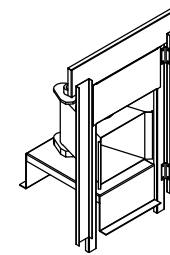
FAN #3 AI-D.250-15D - HEATER (MAU-1)

1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15' MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH E2 FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 1 DIRECT DRIVE AHUS.
5. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
6. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
7. SHIP LOOSE GAS STRAINER. TO BE INSTALLED UPSTREAM OF UNIT CONNECTION. 3/4" CONNECTION.
8. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION. 3/4" REAR FLANGE, LOW LEAKAGE, TFB120S ACTUATOR INCLUDED.
9. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREVIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
10. HINGED DOUBLE WALL INSULATED DDDR ASSEMBLY (BURNER/BLOWER SECTION).
11. 2 YEAR PARTS WARRANTY

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" X 14".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 9°F. TEMP. RISE = 64°F.
 BTUs CALCULATED OFF ACTUAL AIR DENSITY.
 OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 89220.
 INPUT BTUs AT ALTITUDE OF 0.0 FT. = 96978.
 OUTPUT BTUs AT ALTITUDE OF 684 FT. = 87036.
 INPUT BTUs AT ALTITUDE OF 684 FT. = 94605.



DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

DIRECT FIRED PROFILE PLATE SPECIFICATIONS:

DESCRIPTION:

DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US6629523B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2). DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:

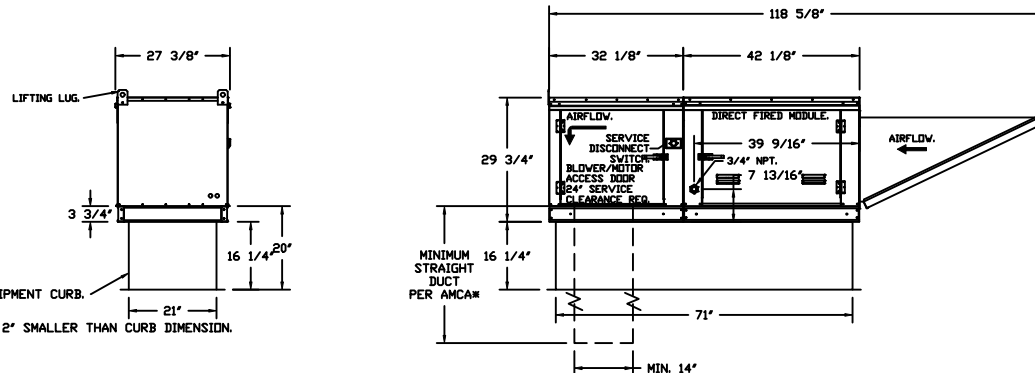
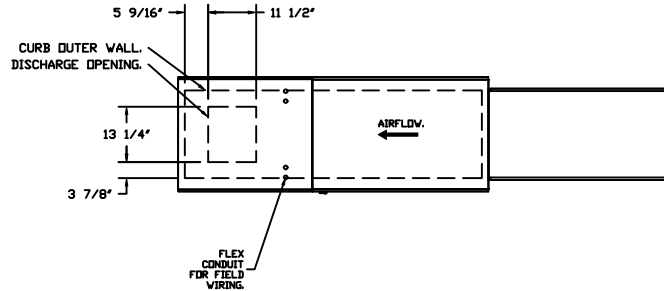
SPRING-LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CERTIFICATIONS:

ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).

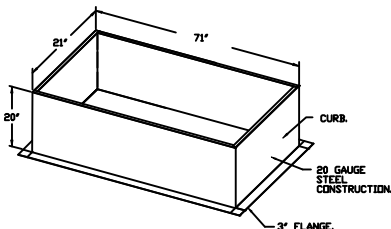
GENERAL CONSTRUCTION:

- PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
- PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
- PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
- DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
- SPRING HINGES SHALL BE MADE FROM PLATED STEEL.



ROOF OPENING 2" SMALLER THAN CURB DIMENSION.

OPTIONS:
 - FULL BOTTOM CORNERS.



CAPTIVEAIR

JOB: CHIPOTLE AVON NORTH #4945	
LOCATION: AVON, OH, 44011	
DATE: 9/25/2023	JOB #: 6239314
DWG #: 7	DRAWN BY: JMB-40
REV.	SCALE: 1/4" = 1'-0"

Exhaust Fan Wiring

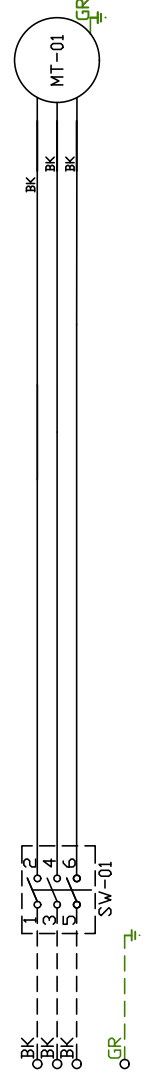
JOB 6239314 - CHIPOTLE AVDN NORTH #4945

DRAWING NUMBER EXH6239314-1

SHIP DATE 9/25/2023

MODEL DU180HFA

Installed Options



Label	Component Description	Location
MT-01	Fan Motor	[3]
SW-01	Main disconnect switch	[3]

MOTOR_INED
 EXHAUST 2.0HP-208V-3P-8.3FLA
 VFD PART: ESV2E2N02YXB571

ELECTRICAL INFORMATION
 MOTOR/CTRL MCA: 10.4A
 MOTOR/CTRL MOP: 15A

NOTES
 --- DENOTES FIELD WIRING
 --- DENOTES INTERNAL WIRING

WIRE COLOR

- BK - BLACK
- BL - BLUE
- BR - BROWN
- OR - ORANGE
- RD - RED
- WH - WHITE
- YW - YELLOW
- GR - GREEN
- GY - GRAY
- PR - PURPLE
- PK - PINK

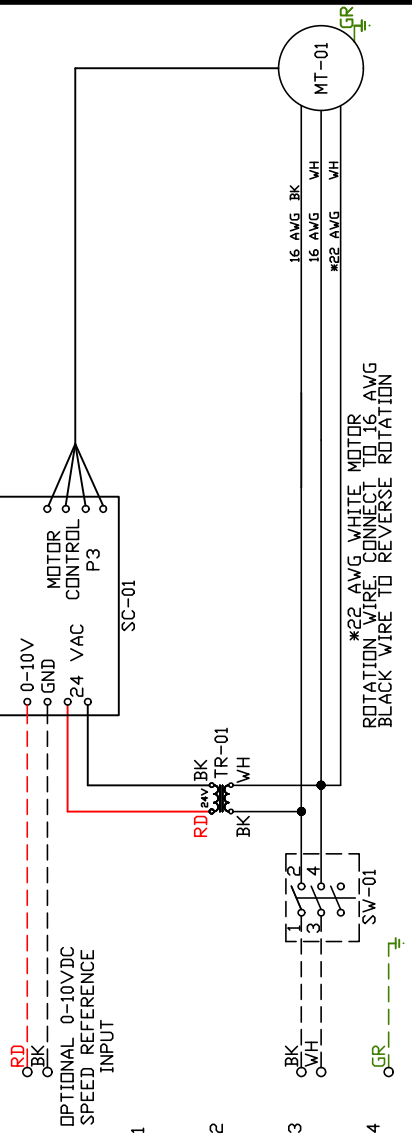
Exhaust Fan Wiring

JOB 6239314 - CHIPOTLE AVON NORTH #4945

DRAWING NUMBER EXH6239314-2

SHIP DATE 9/25/2023

MODEL DR12HFA



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22
23

Installed Options

Label	Component Identification Description	Location
MT-01	Fan Motor	[3]
SC-01	RTC-FSC-1	[1]
SW-01	Main disconnect switch	[3]
TR-01	24VAC 20VA Transformer[2]	

EXHAUST MOTOR INFO 0.3HP-115V-IP-2.9FLA

ELECTRICAL INFORMATION
MOTOR/CTRL MOP: 37A
MOTOR/CTRL MOP: 15A

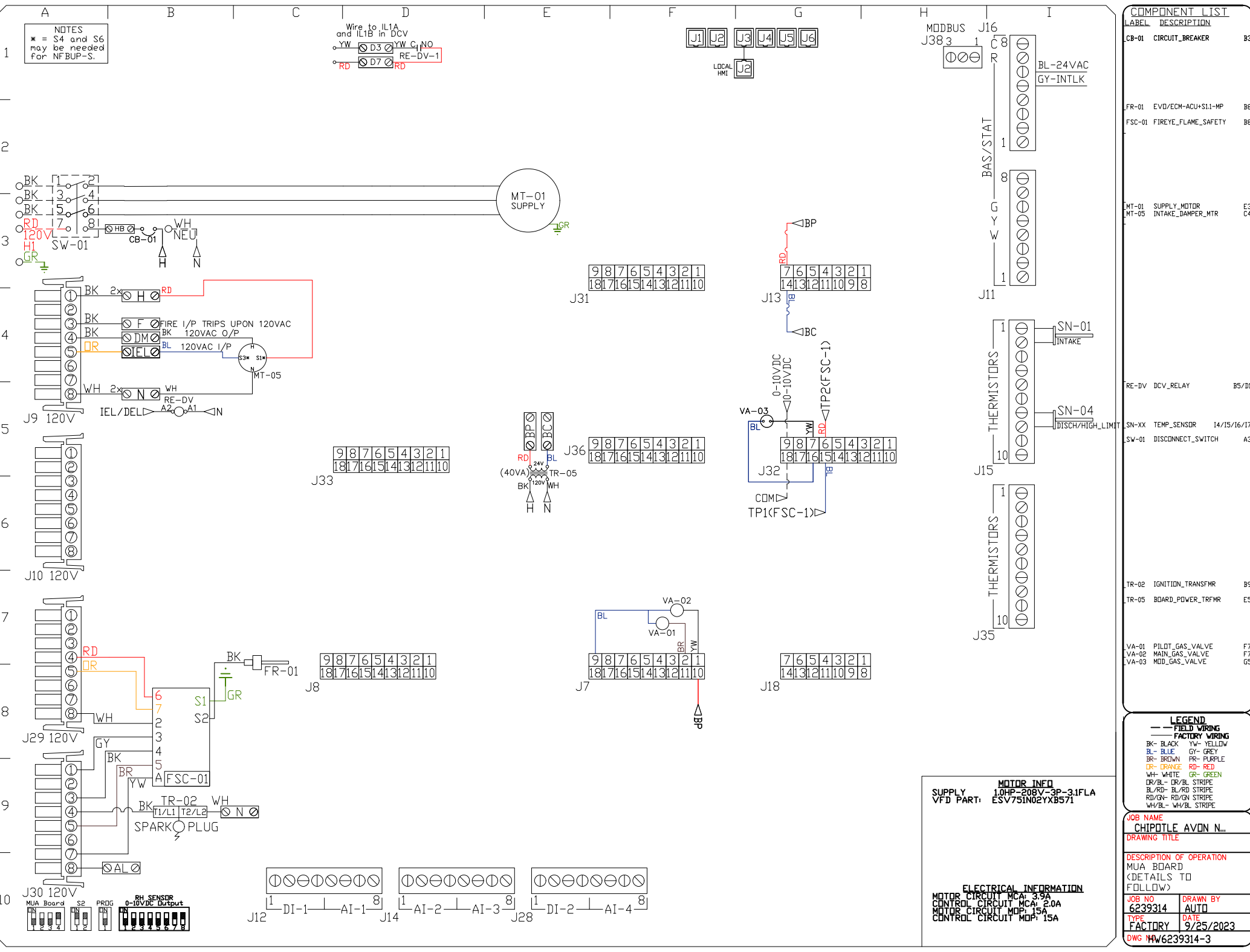
NOTES
--- DENOTES FIELD WIRING
--- DENOTES INTERNAL WIRING

WIRE COLOR

- BK - BLACK
- BL - BLUE
- BR - BROWN
- DR - RED
- WH - WHITE
- YW - YELLOW
- GR - GREEN
- GY - GRAY
- PR - PURPLE
- PK - PINK

NOTES
 * = S4 and S6 may be needed for NFBUP-S.

Wire to IL1A and IL1B in DCV
 YW D3 YW C, NO
 RE-DV-1
 RD D7 RD



COMPONENT LIST		
LABEL	DESCRIPTION	
CB-01	CIRCUIT_BREAKER	B3
FR-01	EVD/ECM-ACU+S11-MP	B8
FSC-01	FIREYE_FLAME_SAFETY	B8
MT-01	SUPPLY_MOTOR	E3
MT-05	INTAKE_DAMPER_MTR	C4
RE-DV	DCV_RELAY	B5/D1
SN-XX	TEMP_SENSOR	14/15/16/17
SW-01	DISCONNECT_SWITCH	A3
TR-02	IGNITION_TRANSFMR	B9
TR-05	BOARD_POWER_TRFMR	E5
VVA-01	PILOT_GAS_VALVE	F7
VVA-02	MAIN_GAS_VALVE	F7
VVA-03	MOD_GAS_VALVE	G5

LEGEND	
---	FIELD WIRING
---	FACTORY WIRING
BK-	BLACK
BL-	BLUE
BR-	BROWN
OR-	ORANGE
DR/BL-	DR/BL STRIPE
BL/RD-	BL/RD STRIPE
RD/GN-	RD/GN STRIPE
WH/BL-	WH/BL STRIPE
YW-	YELLOW
GY-	GREY
PR-	PURPLE
GR-	GREEN
RD-	RED

MOTOR INFO
 SUPPLY 1.0HP-208V-3P-3.1FLA
 VFD PART: ESV75IN02YXB571

ELECTRICAL INFORMATION
 MOTOR CIRCUIT MCA: 3.9A
 CONTROL CIRCUIT MCA: 2.0A
 MOTOR CIRCUIT MOP: 15A
 CONTROL CIRCUIT MOP: 15A

JOB NAME CHIPDILE AVON N...	
DRAWING TITLE	
DESCRIPTION OF OPERATION MUA BOARD <DETAILS TO FOLLOW>	
JOB NO 6239314	DRAWN BY AUTO
TYPE FACTORY	DATE 9/25/2023
DWG HW6239314-3	

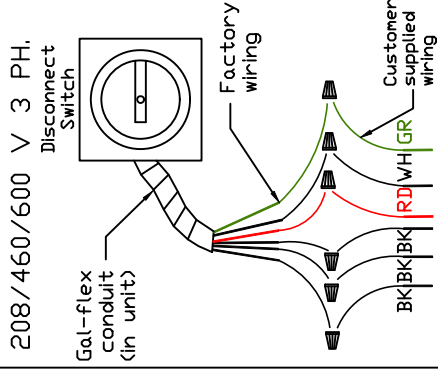
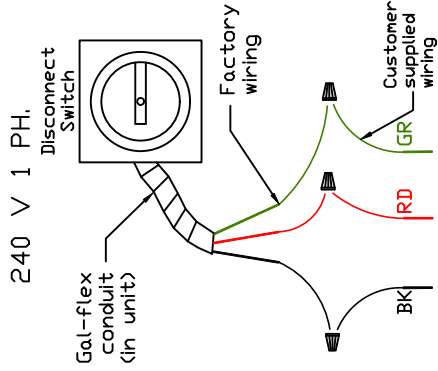
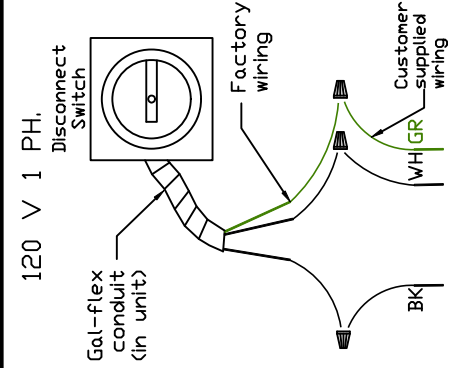
Installation Wiring

JOB 6239314 - CHIPOTLE AVON NORTH #4945

DRAWING NUMBER RP6239314-3

SHIP DATE 9/25/2023

MODEL AI-D.250-15D

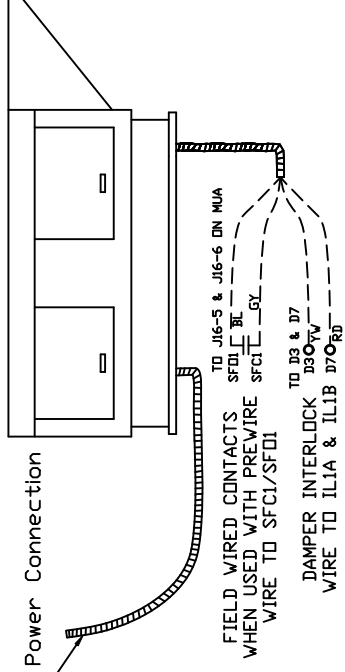


STANDING POWER
RD & WH Wire (115V, 1 PHASE)

Field Wired Switch

Installed Options

See above details.



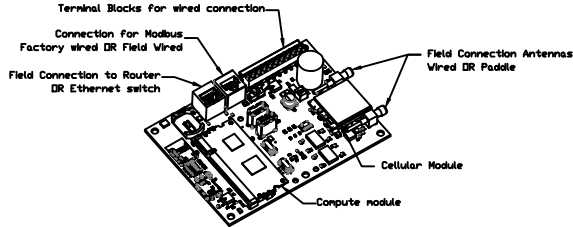
NOTES

WIRE COLOR

BK	-	BLACK	YW	-	YELLOW
BL	-	BLUE	GR	-	GREEN
BR	-	BROWN	GY	-	GRAY
DR	-	ORANGE	PR	-	PURPLE
RD	-	RED	PK	-	PINK
WH	-	WHITE			

ELECTRICAL PACKAGE – JOB#6239314

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	φ	HP	VOLT	FLA
1		SC-311110MA	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-1	EXHAUST	3	2,000	208	8.3
				HOOD # 1	1 FAN		MAU-1	SUPPLY	3	1,000	208	3.1



CASlink Monitor and Control

- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

MONITORING AND CONTROL POINTS LIST

DCV Packages	Function	SC Packages	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR	MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR	Controller Faults	MONITOR
Fan Amperage	MONITOR	Fan Faults	MONITOR
Fan Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	FCU Faults	MONITOR
Controller Faults	MONITOR	FCU Filter Clog Percentages	MONITOR
Fan Faults	MONITOR	Fire Condition	MONITOR
Fan Status	MONITOR	CORE Fire System	MONITOR
FCU Faults	MONITOR	Building Pressures	MONITOR
FCU Filter Clog Percentages	MONITOR	Fans Button(s)	MONITOR & CONTROL
Fire Condition	MONITOR	Lights Button(s)	MONITOR & CONTROL
CORE Fire System	MONITOR	Wash Button	MONITOR & CONTROL
Building Pressures	MONITOR		
Prep Time Button	MONITOR & CONTROL		
Fans Button	MONITOR & CONTROL		
Lights Button	MONITOR & CONTROL		
Wash Button	MONITOR & CONTROL		



JOBCHIPOTLE AVON NORTH #4945	
LOCATION AVON, OH, 44011	
DATE 9/25/2023	JOB # 6239314
DWG # 12	DRAWN BY JMB-40
REV.	SCALE 3/8" = 1'-0"

JOB NO
6239314

MODEL NUMBER
SC-31110MA

DRAWN BY
INSTALL

DESCRIPTION OF OPERATION:
3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.

JOB NAME
CHIPOTLE AVDN NORTH #4945

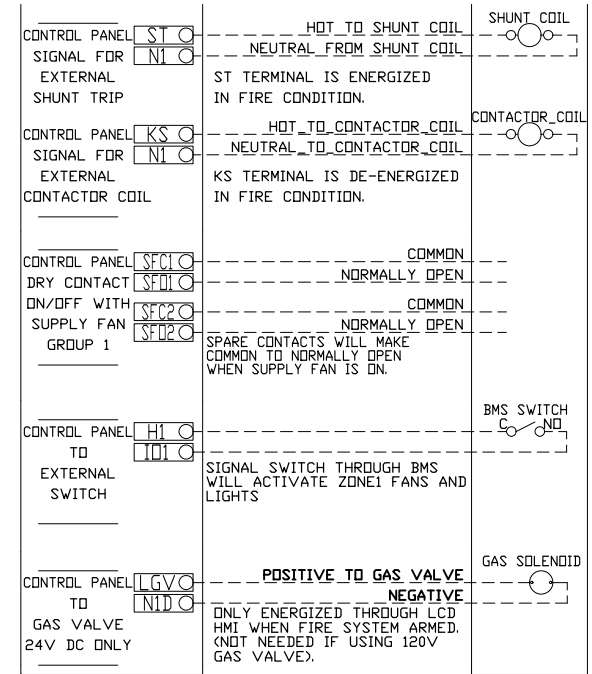
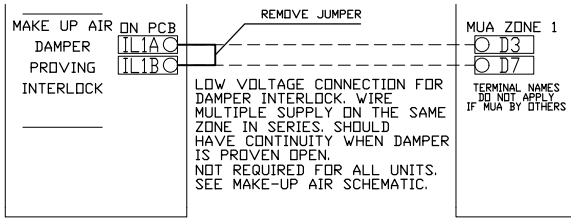
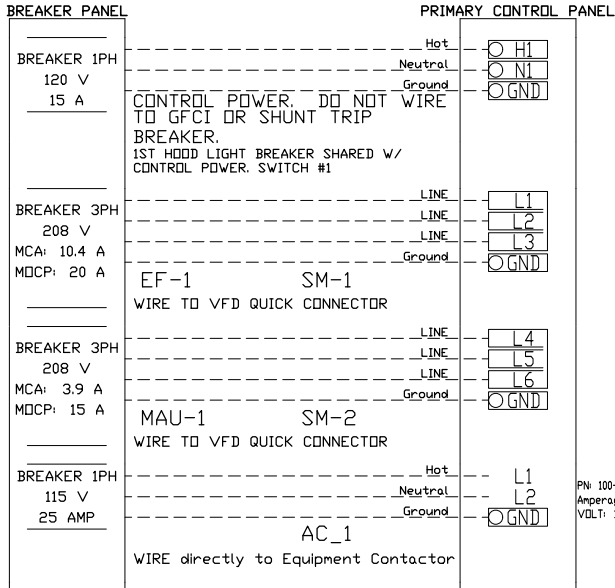
DATE
9/25/2023

DWG NO
ECP #1-1

BREAKER PANEL TO PRIMARY CONTROL PANEL

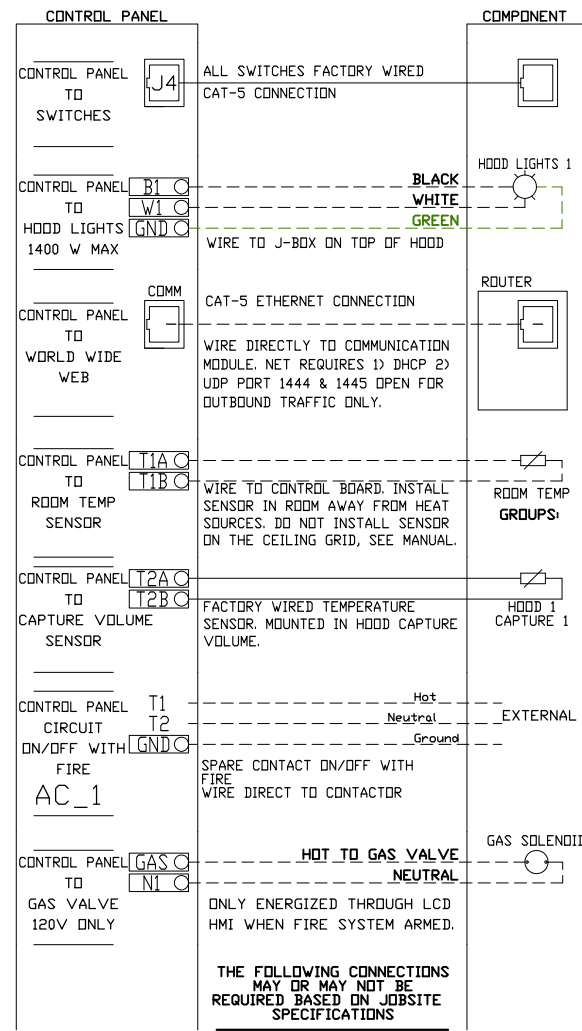
Responsibility: Electrician

BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED



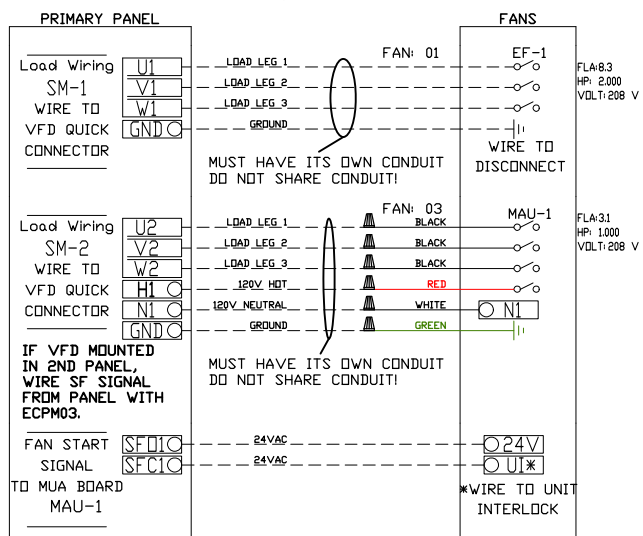
CONTROL PANEL TO ACCESSORY ITEMS

Responsibility: Electrician



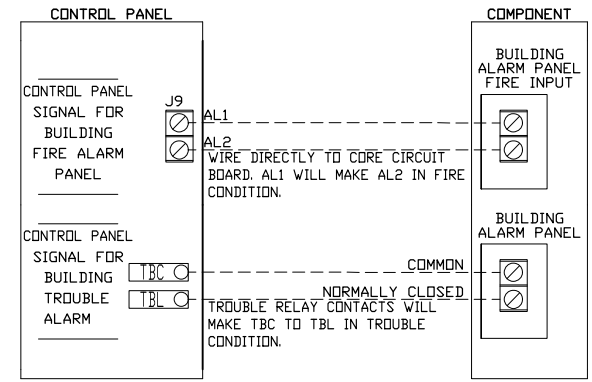
CONTROL PANEL TO FANS

Responsibility: Electrician



CONTROL PANEL TO FIRE SYSTEM

Responsibility: ALARM CONTRACTOR



JOB NO
6239314

MODEL NUMBER
SC-31110MA

DRAWN BY

SCHEMATIC TYPE
INSTALL

DESCRIPTION OF OPERATION:

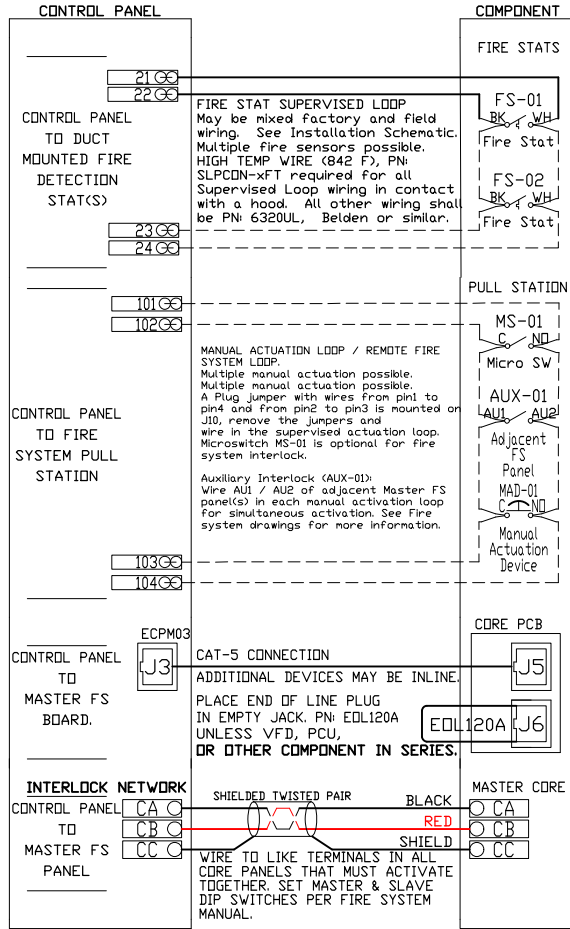
3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on In Fire, Lights out In Fire, Relay On/Off with Supply Fan, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.

JOB NAME
CHIPOTLE AVDN NORTH #4945

DATE
9/25/2023

DWG NO
ECP #1-2

CONTROL PANEL TO FIRE SYSTEM
Responsibility: CERTIFIED INSTALLER



JOB NO
6239314

MODEL NUMBER
SC-31110MA

DRAWN BY
SCHEMATIC TYPE
INSTALL

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 4.0/4.0.

JOB NAME
CHIPOTLE AVDN NORTH #4945

DATE
9/25/2023
DWG NO
ECP #1-3

TANK PROTECTION ELECTRICAL DETAIL

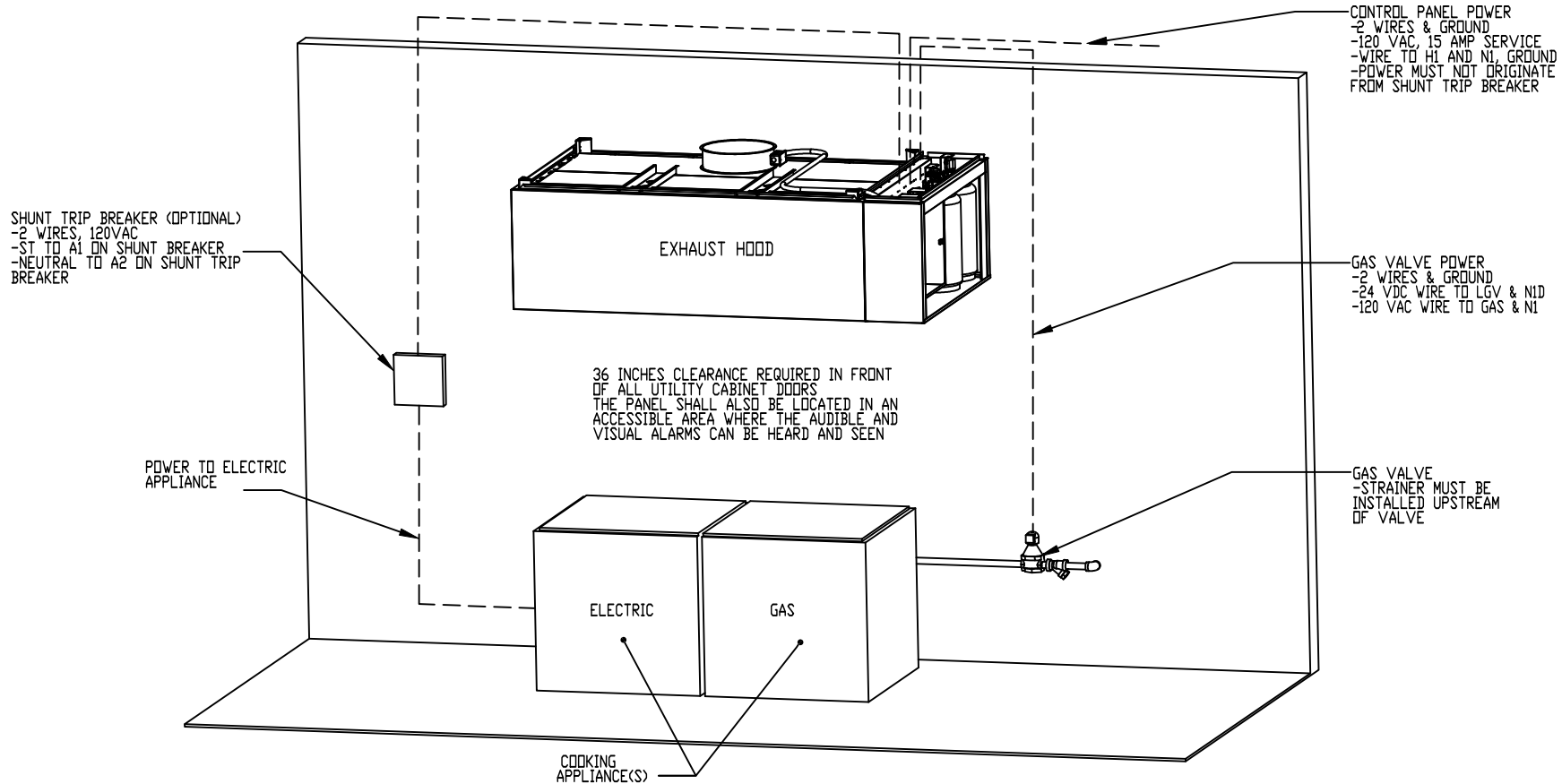
02/10/2021 Rev. 2

- ELECTRICIAN:
 1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
 2. WIRE ALL FANS PER INCLUDED SCHEMATIC
 3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
 4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
 5. WIRE GAS VALVE

FS-1: MASTER

ELECTRICAL CONTRACTOR REQUIREMENT

ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N1D (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N1D TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO
6239314

MODEL NUMBER
SC-311110MA

DRAWN BY
INSTALL

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 4.0/4.0.

JOB NAME
CHIPOTLE AVDN NORTH #4945

DATE
9/25/2023

DWG NO
ECP #1-4

TANK PROTECTION LOW-VOLTAGE DETAIL

02/10/2021 Rev. 2

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

FS-1: MASTER

ALARM CONTRACTOR REQUIREMENT

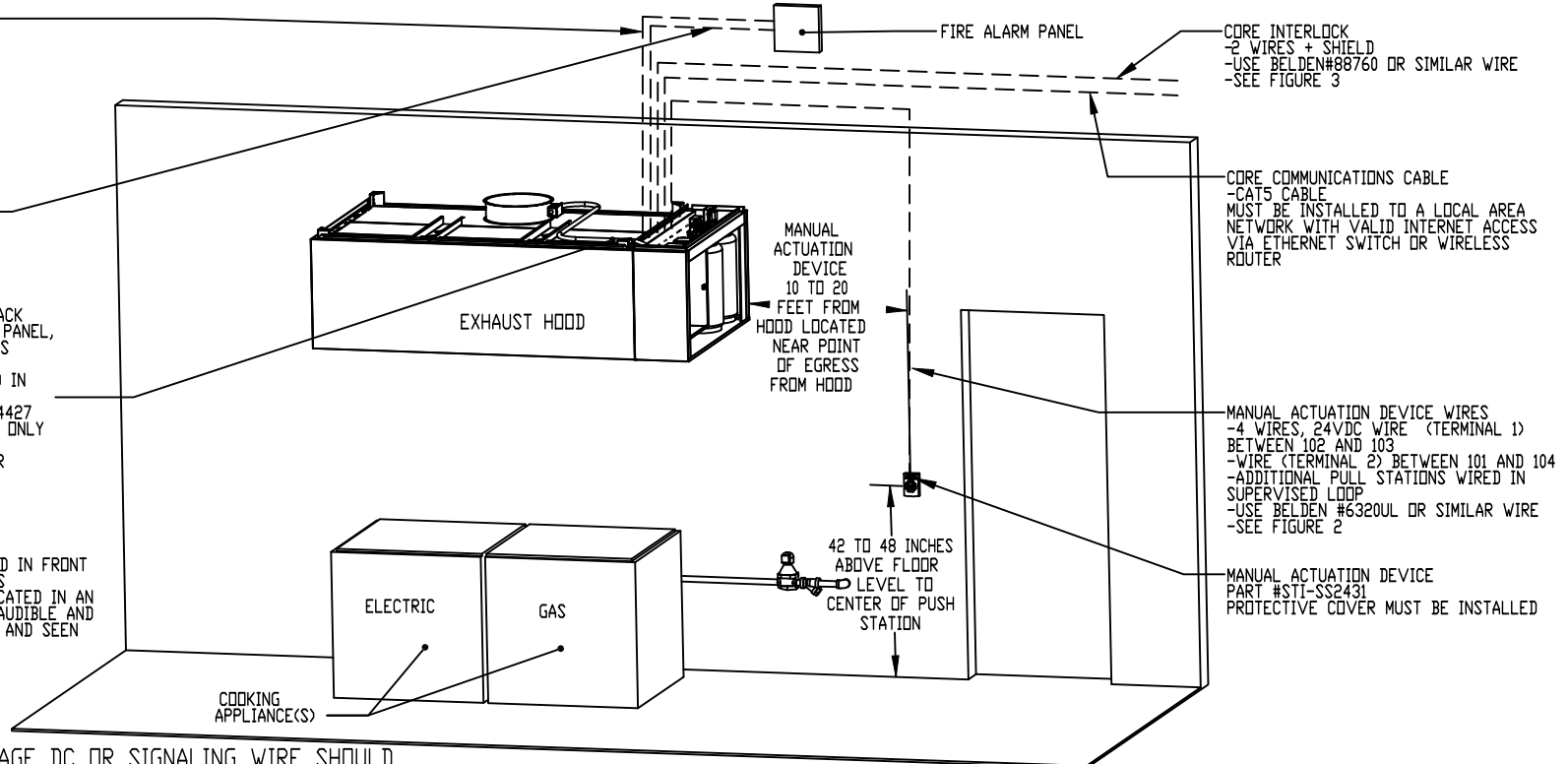
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION STI-6531B
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) #CW04427 (WHT) & #CW04427B (BLK) WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD; OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE; SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA. CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB. CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION

FIRE ALARM CONTACT
-2 WIRES WIRE TO NORMALLY
OPEN CONTACTS (CLOSES IN
FIRE CONDITION)
-CORE CONTROL PANEL AL1
AND AL2
-SEE FIGURE 2

TROUBLE CONTACT
-2 WIRES TO NORMALLY
OPEN CONTACTS (CLOSE
IN TROUBLE CONDITION)
-CORE PANEL TERMINALS
TBL AND TBC
-SEE FIGURE 4

SUPERVISED LOOP
-4 WIRES, 24VDC CONNECT BLACK
WIRES BETWEEN 21 AND 24 IN PANEL,
CONNECT WHITE (OR RED) WIRES
BETWEEN 22 AND 23 IN PANEL
-ADDITIONAL FIRESTATS, WIRED IN
SUPERVISED LOOP
-USE HIGH TEMP (842°F) #CW04427
(WHT) & #CW04427B (BLK) WIRE ONLY
IF RAN OVER TOP OF HOOD;
OTHERWISE BELDEN #6320UL OR
SIMILAR PLENUM RATED WIRE
-SEE FIGURE 1

36 INCHES CLEARANCE REQUIRED IN FRONT
OF ALL UTILITY CABINET DOORS
THE PANEL SHALL ALSO BE LOCATED IN AN
ACCESSIBLE AREA WHERE THE AUDIBLE AND
VISUAL ALARMS CAN BE HEARD AND SEEN



**ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD
BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES**

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO
6239314

MODEL NUMBER
SC-31110MA

DRAWN BY
INSTALL

DESCRIPTION OF OPERATION:

Fire System #1 TANK FS - 4.0/4.0.

JOB NAME
CHIPOTLE AVON NORTH #4945

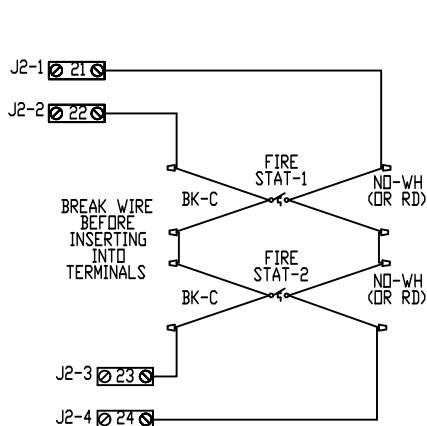
DATE
9/25/2023

DWG NO
ECP #1-5

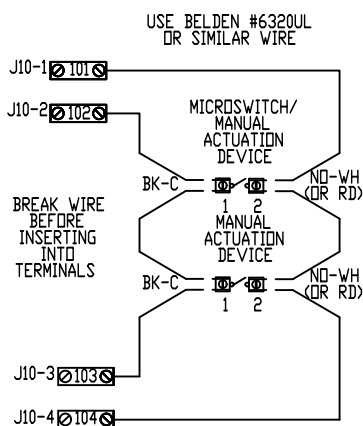
02/10/2021 Rev. 17

TANK PROTECTION LOW-VOLTAGE FIGURES

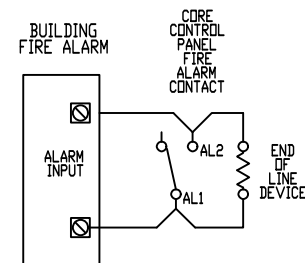
FS-1: MASTER



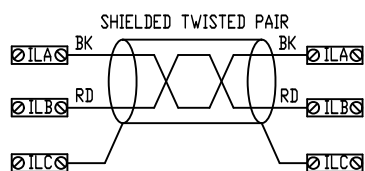
WIRING CONNECTIONS FOR FIRESTAT LOOP
FIGURE 1



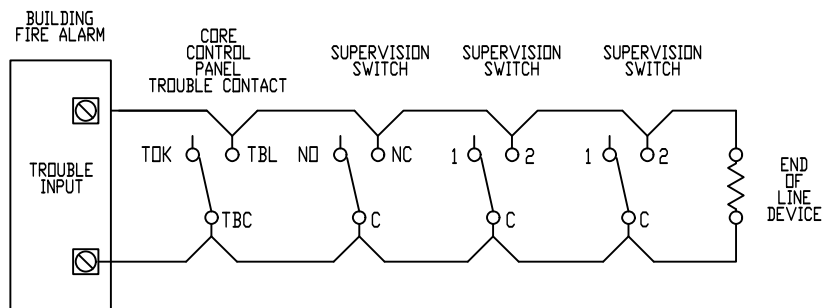
WIRING CONNECTIONS FOR MANUAL ACTUATION LOOP
FIGURE 1A



WIRING CONNECTIONS FOR FIRE ALARM CONTACT
FIGURE 2



WIRING CONNECTIONS FOR CORE INTERLOCK
FIGURE 3

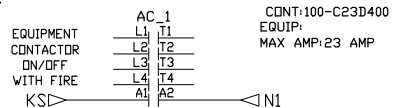


WIRING CONNECTIONS FOR TROUBLE CONTACT
FIGURE 4

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

APPLIANCE CONTACTOR CIRCUITS. SEE INSTALLATION DIAGRAM FOR FIELD WIRING REQUIREMENTS.



FACTORY WIRING SCHEMATIC CIRCUIT BOARDS
 DCV Rev. 2.10.00
 HMI Rev. 2.10.00

RA-x	RD-x
120 VAC	24 VDC
RELAY	RELAY
NO 4 3	NO 4 3
NC 2 1	NC 2 1
COIL 8 7	COIL 8 7
COM 6 5	COM 6 5

COMPONENT LIST

LABEL	DESCRIPTION
ST-X	Starter PN varies
C-X	Contactors PN varies
SM-X	VFD PN varies

LEGEND

- FIELD WIRING
- ___ FACTORY WIRING
- BK- BLACK YW- YELLOW
- BL- BLUE GY- GREY
- BR- BROWN PR- PURPLE
- DR- ORANGE RD- RED
- WH- WHITE
- DR/BL- DR/BL STRIPE
- BL/RD- BL/RD STRIPE
- RD/GN- RD/GN STRIPE
- WH/BL- WH/BL STRIPE

JOB NAME

CHIPOTLE AVON NO...

DRAWING TITLE
 SC-31110MA

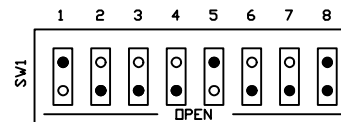
DESCRIPTION OF OPERATION
 3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Fan(s) On/Off
 Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.

JOB NO	DRAWN BY
6239314	
TYPE	DATE
FACTORY	9/25/2023
DWG NO ECP	#1-7

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES.

FS-1: MASTER

DIP Switch



Master CORE set DIP SW 8 to CLOSED position. Slave CORE with address 1 set DIP SW 8 to CLOSED position. All other CORES set DIP SW 8 OPEN.

FIRE INDICATOR FAULT CONDITION FLASH CODES

- 2 Release Solenoid
- 3 Pressure Switch
- 4 Auxiliary Fault
- 5 Microcontroller Fault
- 6 N/A
- 7 Supervised Loop
- 8 Ground Fault
- 9 Surfactant Low
- 10 Battery Voltage Low
- 11 AC Power Failure
- 12 Door Tamper Switch
- 13 Test Mode
- 14 CORE Interlock Network
- 15 Fault on Hood in Interlock Network
- 16 Fault on PCU in Interlock Network

FACTORY WIRING SCHEMATIC CORE FIRE PROTECTION

RA-x	RD-x
120 VAC RELAY	24 VDC RELAY
NO 4 3	NO 4 3
NC 2 1	NC 2 1
COIL 8 7	COIL 8 7
COM 6 5	COM 6 5

COMPONENT LIST

LABEL	DESCRIPTION
MAD-01	MANUAL ACTIVATION PN DEVICE
PCB-2	CORE PCB PN: PCB-CORE-APP
PS-02	CORE POWER SUPPLY PN: 1606-XLP-60E
WS-x	Water Solenoid PN varies
LT-06	24V Red Ind. Light PN: PNL-1163-0UR
LL-01	Surf. Level Sensor PN: A05510
AA-01	Audible Alarm PN: SCE120LA3FP1B
PB-01	Prime/Reset Switch PN: DF-F2X11
SW-05	TEST/ARM Switch PN: ZB5AD2
SW-04	Tamper Switch PN: BZ-2R01-A2
SP-1	Battery Pump PN: 50000-805
GV-1	24V DC Gas Valve PN varies
FS-XX	Duct Fire Sensor PN: 12-F20021-000360
LT-05	24V YLW Ind. Light PN: PNL-1163-0UY
PS-01	Remote Pull/Push PN: Station ST1-SS2431
PWS-01	24VDC Power Supply PN: 24VDC 18W PDWER
RD-XX	24VDC Phoenix Relay PN: PLC-RPT-24DC/21
PS	Pressure Switch PN: EWC-PRESSURE

LEGEND

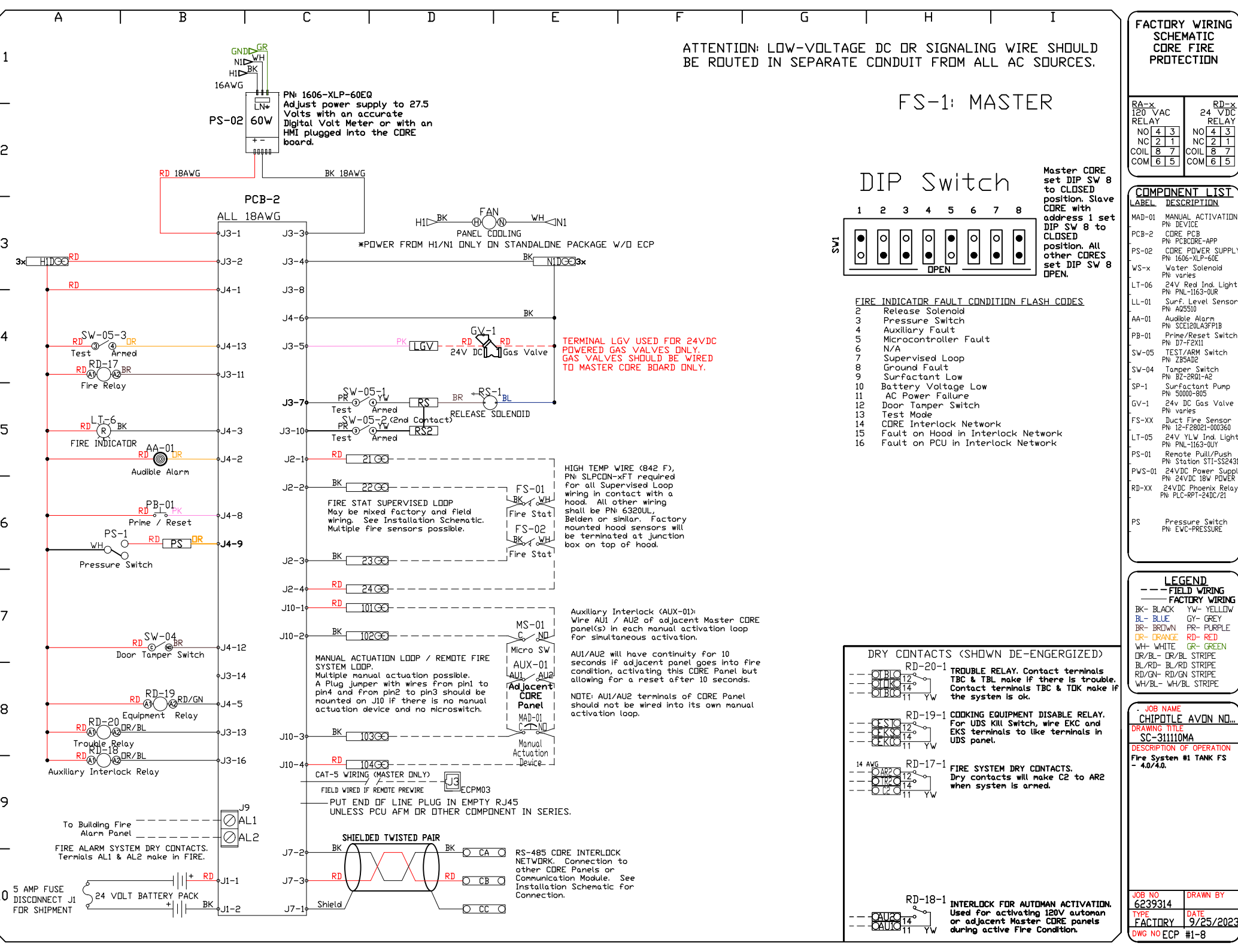
---	FIELD WIRING
---	FACTORY WIRING
BK-	BLACK
BL-	BLUE
BR-	BROWN
CR-	CRANGE
DR-	RED
WH-	WHITE
GR-	GREEN
DR/BL-	DR/BL STRIPE
BL/RD-	BL/RD STRIPE
RD/GN-	RD/GN STRIPE
WH/BL-	WH/BL STRIPE

JOB NAME

CHIPOTLE AVON NO. SC-311110MA

DESCRIPTION OF OPERATION
Fire System #1 TANK FS - 4.0/4.0.

JOB NO	DRAWN BY
6239314	
TYPE	DATE
FACTORY	9/25/2023
DWG NO ECP	#1-8



PN: 1606-XLP-60EQ
Adjust power supply to 27.5 Volts with an accurate Digital Volt Meter or with an HMI plugged into the CDRE board.

PCB-2

*POWER FROM H1/N1 ONLY ON STANDALONE PACKAGE W/D ECP

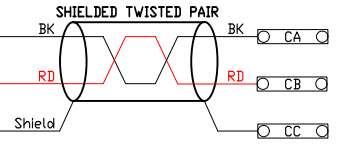
TERMINAL LGV USED FOR 24VDC POWERED GAS VALVES ONLY. GAS VALVES SHOULD BE WIRED TO MASTER CORE BOARD ONLY.

HIGH TEMP WIRE (842 F), PN: SLP-CON-4FT required for all Supervised Loop wiring in contact with a hood. All other wiring shall be PN: 6320UL, Belden or similar. Factory mounted hood sensors will be terminated at junction box on top of hood.

Auxiliary Interlock (AUX-01): Wire AU1 / AU2 of adjacent Master CORE panel(s) in each manual activation loop for simultaneous activation.

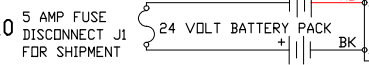
AU1/AU2 will have continuity for 10 seconds if adjacent panel goes into fire condition, activating this CORE Panel but allowing for a reset after 10 seconds.

NOTE: AU1/AU2 terminals of CORE Panel should not be wired into its own manual activation loop.



RS-485 CORE INTERLOCK NETWORK. Connection to other CORE Panels or Communication Module. See Installation Schematic For Connection.

CAT-5 WIRING (MASTER ONLY)
FIELD WIRED IF REMOTE PREVIRE
PUT END OF LINE PLUG IN EMPTY RJ45 UNLESS PCU AFM OR OTHER COMPONENT IN SERIES.



To Building Fire Alarm Panel
FIRE ALARM SYSTEM DRY CONTACTS. Terminals AL1 & AL2 make in FIRE.