

FOR QUESTIONS, CALL THE  
 Florida National Accounts  
 REGION 60  
 PHONE: (407) 682 - 3100  
 EMAIL: reg60@captiveaire.com

**HOOD INFORMATION - JOB#6734349**

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)						HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL		SP	END TO END	ROW
1	FRYER HOOD	3347 BD-2	CAPTIVEAIRE	7' 0"	600 DEG	I	HEAVY	214	1500			4'	12'	1500	1910	-1.090'	430 SS WHERE EXPOSED	ALONE	ALONE
2	GRIDDLE HOOD	3347 BD-2	CAPTIVEAIRE	5' 6"	600 DEG	I	HEAVY	273	1500			4'	12'	1500	1910	-1.412'	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	ELECTRICAL			SWITCHES
1	FRYER HOOD	CAPTRATE SOLO FILTER	5	16'	16'	85% SEE FILTER SPEC	3	L55 SERIES E26	NO						NO	282 LBS
2	GRIDDLE HOOD	CAPTRATE SOLO FILTER	4	16'	16'	85% SEE FILTER SPEC	3	L55 SERIES E26	NO						NO	235 LBS

**HOOD OPTIONS**

HOOD NO	TAG	OPTION
1	FRYER HOOD	FIELD WRAPPER 14.00' HIGH FRONT, LEFT, RIGHT.
		RIGHT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
		LEFT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
SENSOR-CV.		
2	GRIDDLE HOOD	FIELD WRAPPER 14.00' HIGH FRONT, LEFT, RIGHT.
		RIGHT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
		LEFT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
SENSOR-CV.		

**SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER**

THE CAPTRATE 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.

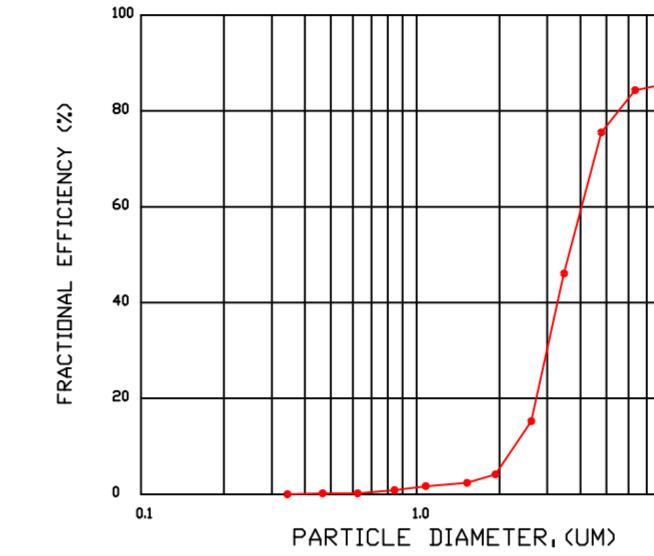
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

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

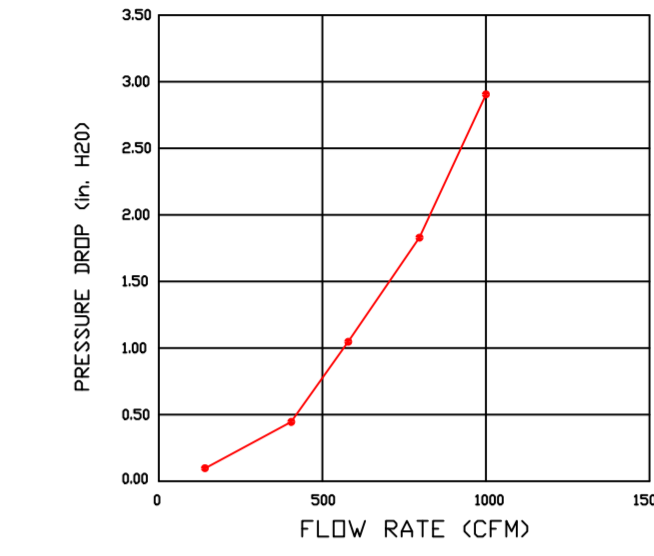
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

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

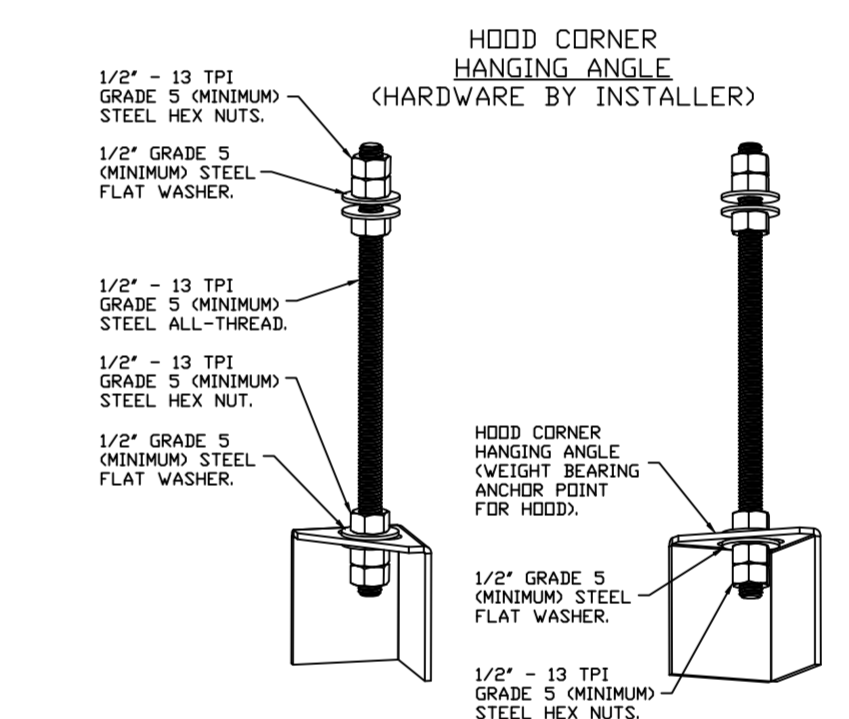
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



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



**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.

**SYSTEM DESIGN VERIFICATION (SDV)**

IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.

**REVISIONS**

DESCRIPTION	DATE

**Florida National Accounts**  
 www.captiveaire.com  
 239 N Hunt Club Blvd., STE 201, Longwood, FL 32779 PHONE: (407) 682 - 3100 FAX: 9192275913 EMAIL: reg60@captiveaire.com

CULVERS FORT WAYNE IN  
 FORT WAYNE, IN, 46803

**DATE:** 4/11/2024

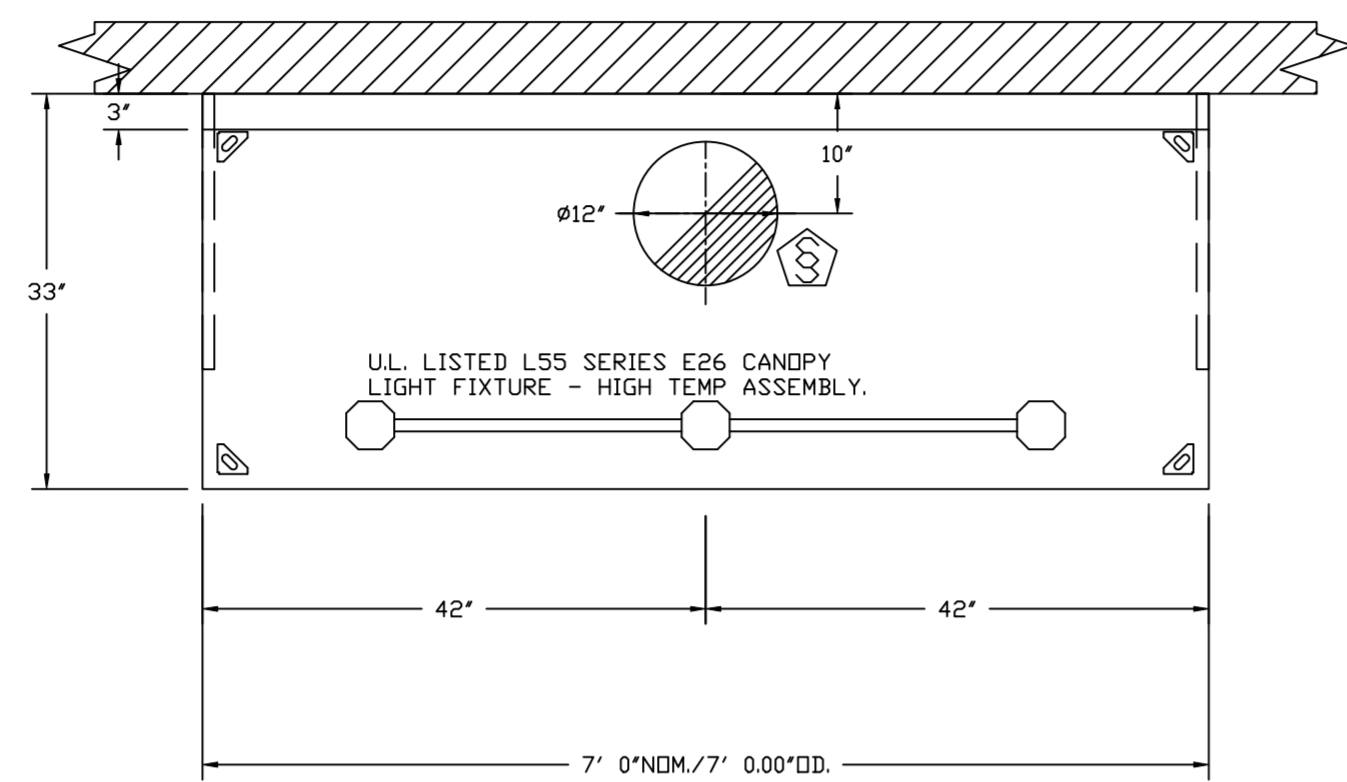
**DWG.#:** 6734349

**DRAWN BY:** sluddyjr

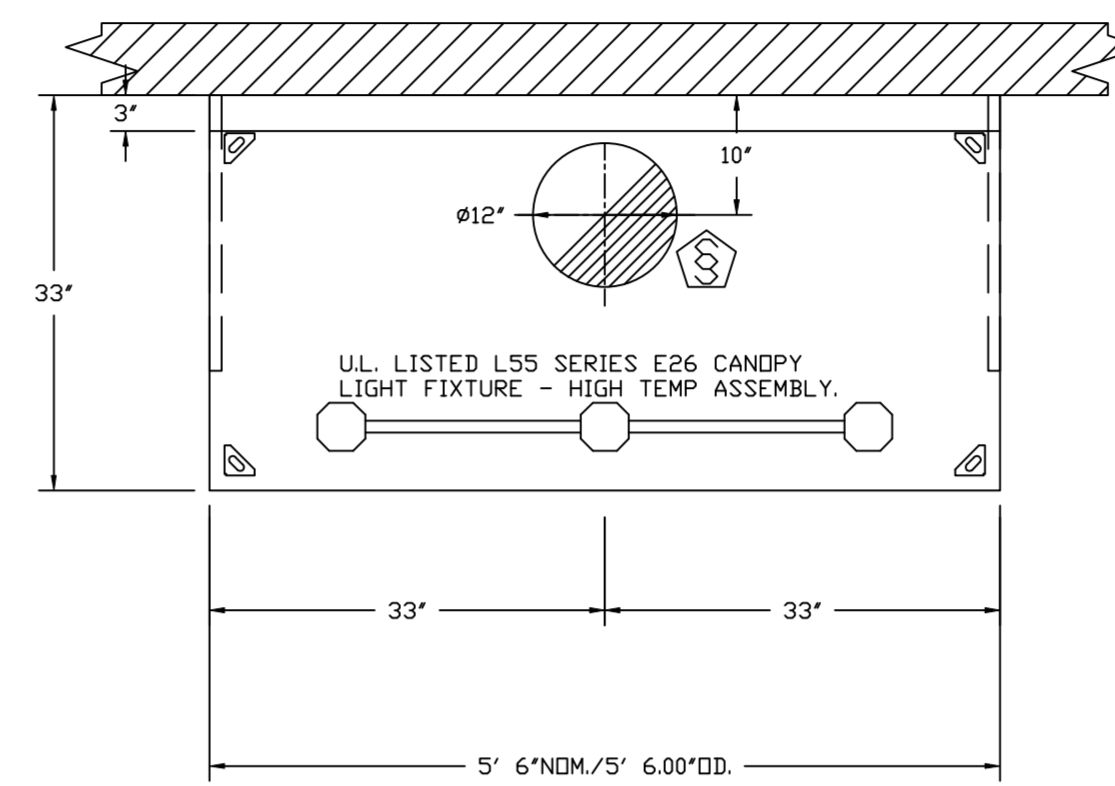
**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

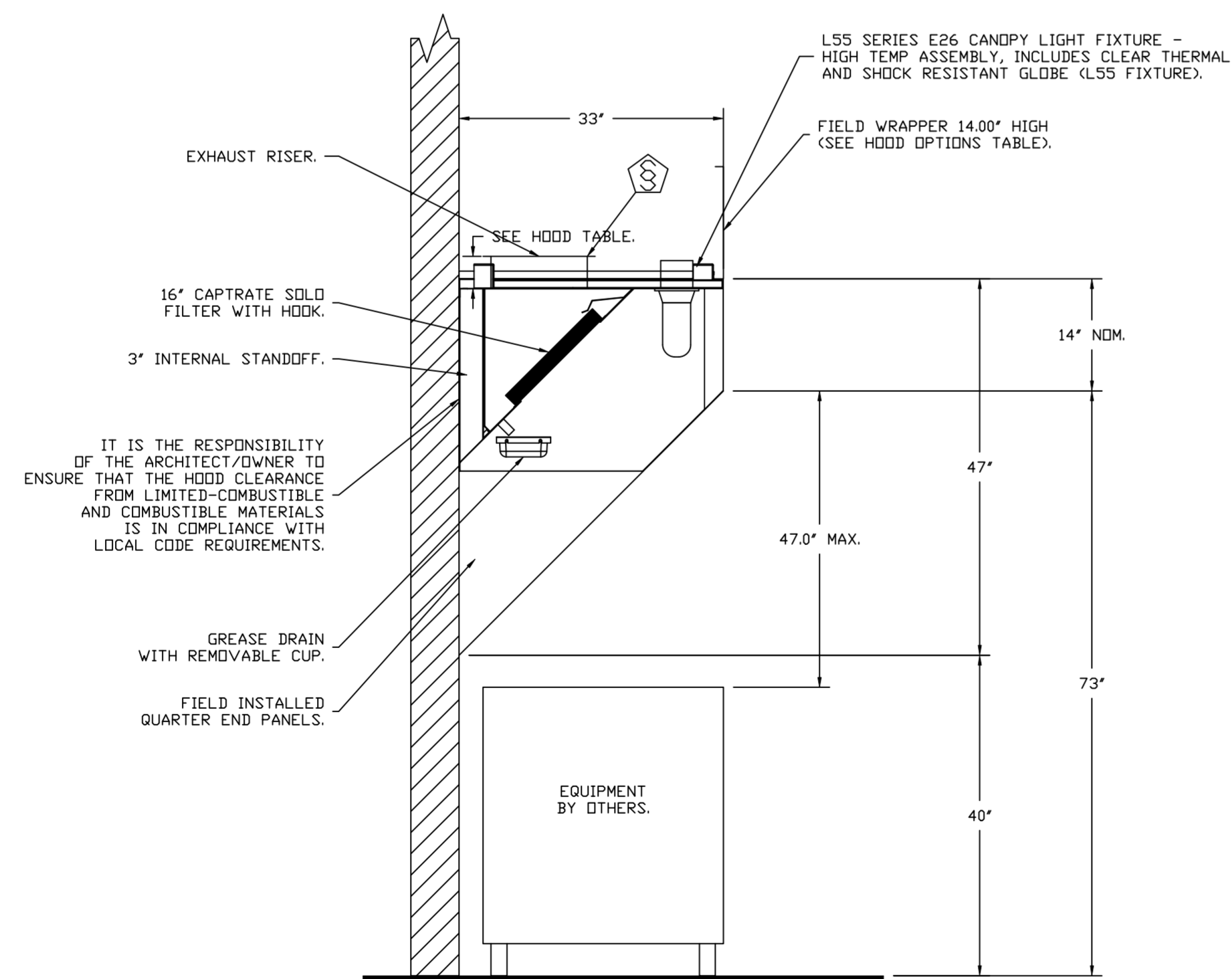
**SHEET NO.**  
1



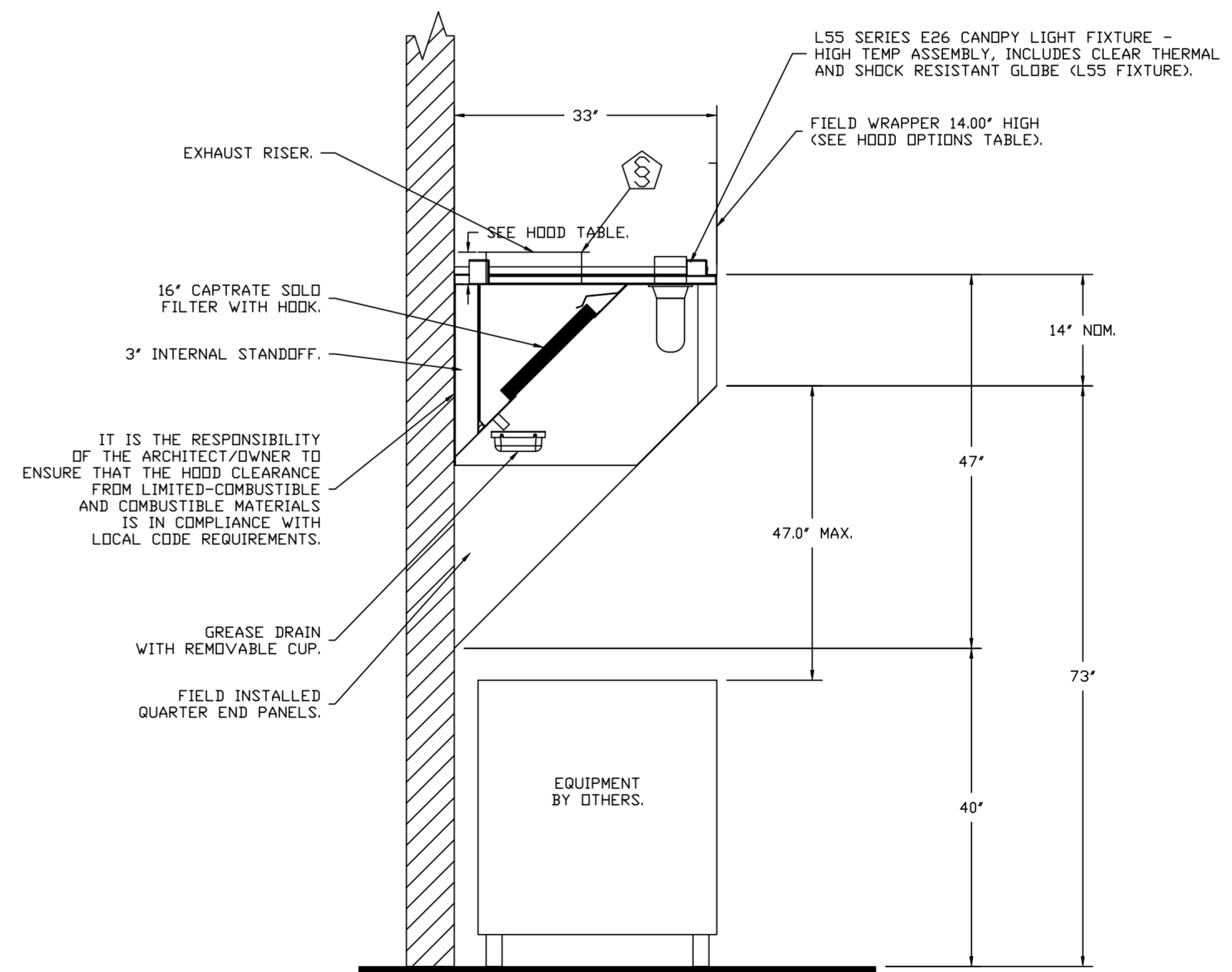
PLAN VIEW - HOOD #1 (FRYER HOOD)  
7' 0.00" LONG 3347BD-2



PLAN VIEW - HOOD #2 (GRIDDLE HOOD)  
5' 6.00" LONG 3347BD-2



SECTION VIEW - MODEL 3347BD-2  
HOOD - #1 (FRYER HOOD)



SECTION VIEW - MODEL 3347BD-2  
HOOD - #2 (GRIDDLE HOOD)

REVISIONS	
DESCRIPTION	DATE

**CAPTIVE**

Florida National Accounts

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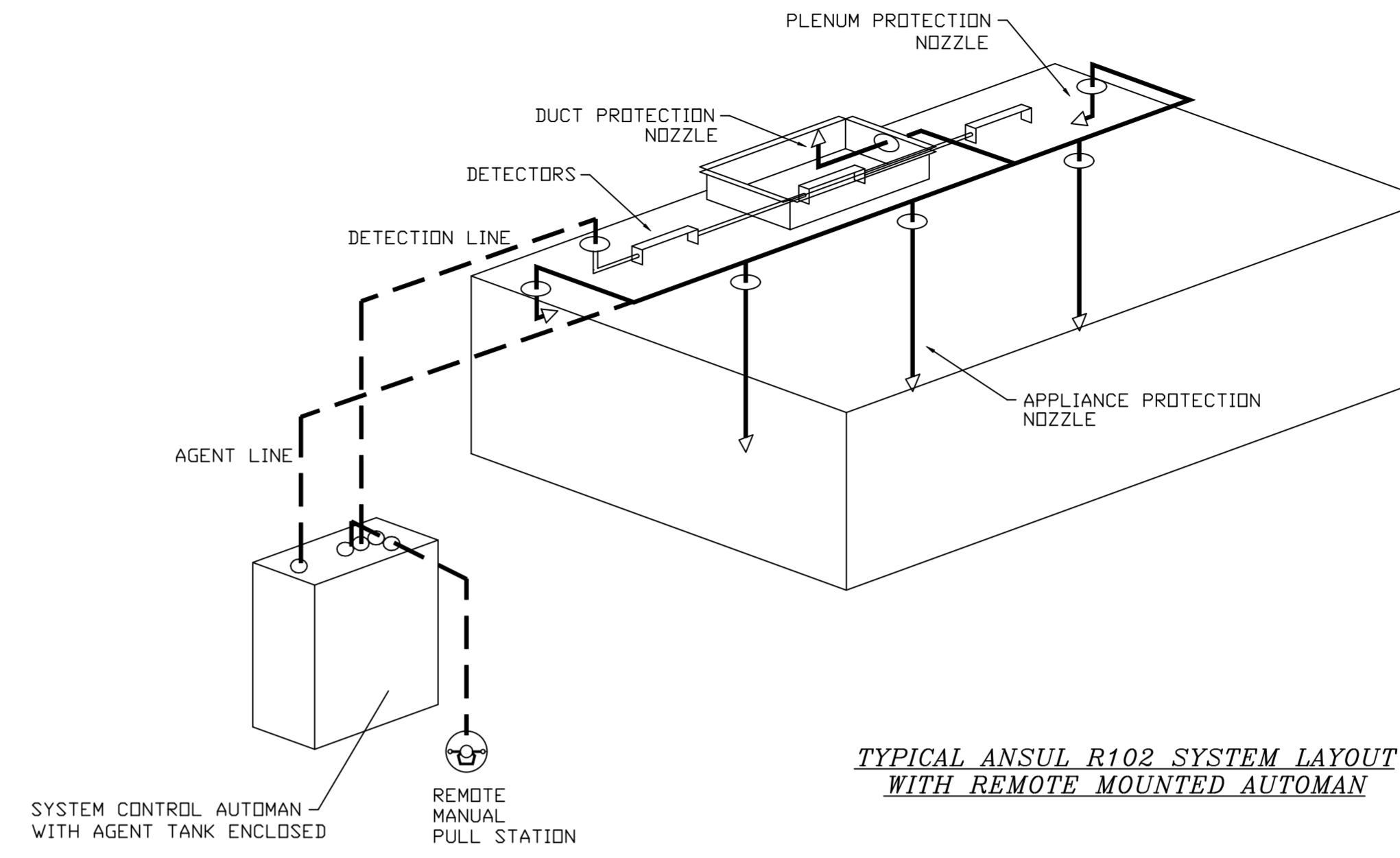
CULVERS FORT WAYNE IN  
FORT WAYNE, IN, 46803

DATE: 4/11/2024  
DWG.#: 6734349  
DRAWN BY: sluddyjr  
SCALE: 3/4" = 1'-0"  
MASTER DRAWING

SHEET NO.  
2

**FIRE SYSTEM INFORMATION**

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL R102	3.0/3.0	14	WALL MOUNT LEFT	N/A
2		ANSUL R102	3.0	6	WALL MOUNT LEFT	N/A



REVISIONS	
DESCRIPTION	DATE

www.captivefire.com  
  
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CULVERS FORT WAYNE IN  
 FORT WAYNE, IN, 46803

**DATE:** 4/11/2024  
**DWG.#:** 6734349  
**DRAWN BY:** sluddyjr  
**SCALE:** 3/4" = 1'-0"  
**MASTER DRAWING**

**SHEET NO.**  
 3

**EXHAUST FAN INFORMATION - JOB#6734349**

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTDR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1	PRV-1 RESTROOM	1	DR12HFA	CAPTIVEAIRE	375	0.500	1369	TEAD-ECM	0.250	0.1110	1	115	2.9		50	7
2	PRV-2	1	DUBSHFA	CAPTIVEAIRE	1500	1.412	1406	TEAD-ECM	1.000	0.5330	1	115	11.6	475 FPM	94	12.3
3	PRV-3	1	DUBSHFA	CAPTIVEAIRE	1500	1.250	1348	TEAD-ECM	1.000	0.4700	1	115	11.6	475 FPM	94	11.3
4	EF-1	2	CFA 100CA	CAPTIVEAIRE	75	0.125	493	GENERAL PURPOSE	0.116	0.0510	1	115	1.1		25	N/A

**DOAS/RTU FAN SCHEDULE - JOB#6734349**

FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	FAN INFORMATION		ELECTRICAL INFORMATION										COOLING INFORMATION										REHEAT INFORMATION										GAS HEAT INFORMATION										NOTES
					BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	HP	PHASE	VOLT	MCA	MDCP	OUTSIDE AIR DB	WB	MIXED AIR DB	WB	LEAVING AIR DB	WB	DP	TOTAL CAPACITY	SENS.	IEER	ISMRE	DISCHARGE DB	WB	CAPACITY DESIRED	MAX	MOISTURE REMOVAL RATE	GAS TYPE	INPUT BTUS	OUTPUT BTUS	TEMP RISE	REQUIRED INPUT GAS PRESSURE											
5	RTU-1 DINING	1	CASRTU3-1300-24-20T	CAPTIVEAIRE	24MF-3-RTU	4400	1750	6150	2763	0.750	10.00	3	208	103.1A	125A	86.3°F	78.9°F	78.2°F	67.4°F	53.3°F	53.3°F	53.4°F	256.6 MBH	158.9 MBH	18.2	6.0	70.0°F	59.8°F	111.6 MBH	129.6 MBH	83.1 LBS/HR	NATURAL	291358	236000	36°F	7 IN. W.C. - 14 IN. W.C.	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18										
6	RTU-2 KITCHEN	1	CASRTU3-1250-24-20T	CAPTIVEAIRE	24MF-3-RTU	4450	1700	6150	2792	0.750	10.00	3	208	103.1A	125A	82.8°F	76.9°F	77.2°F	66.7°F	53.1°F	53.1°F	53.2°F	244.8 MBH	154.2 MBH	18.2	6.0	70.0°F	59.8°F	112.9 MBH	129.6 MBH	83.1 LBS/HR	NATURAL	219753	178000	27°F	7 IN. W.C. - 14 IN. W.C.	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18										

**NOTES:**

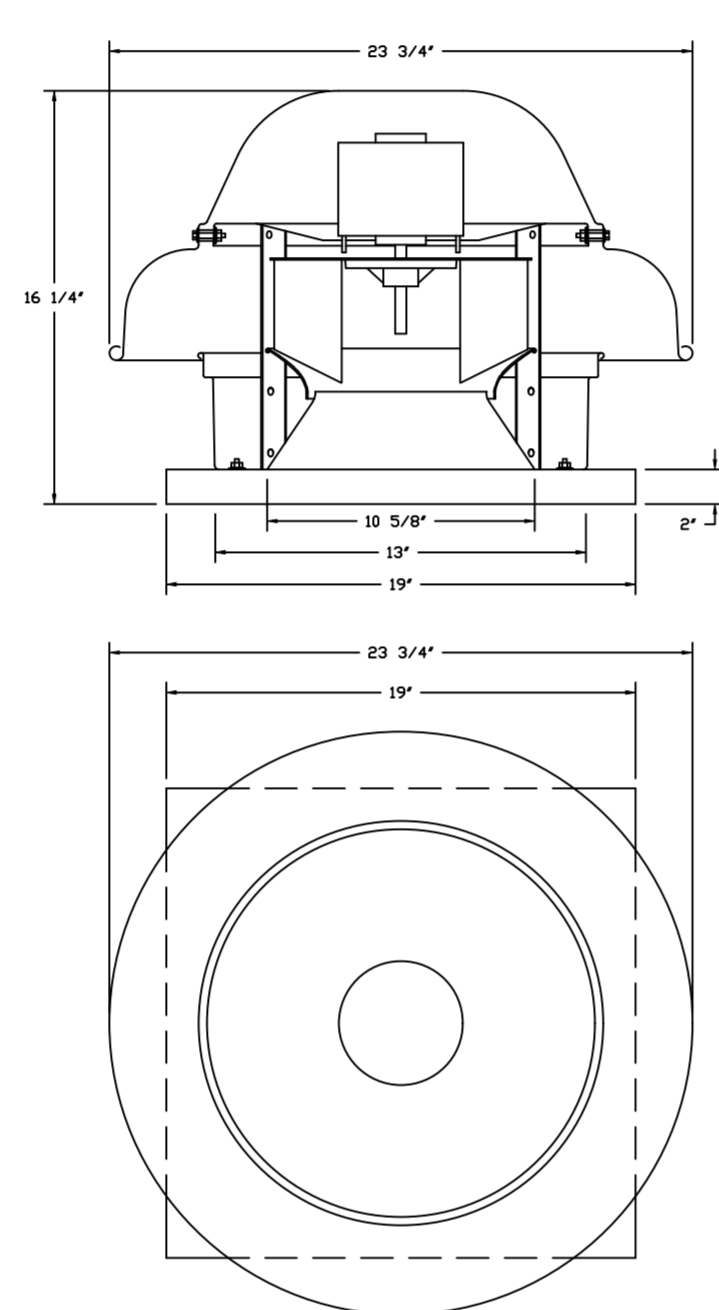
- INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL.
- DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE.
- INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER.
- REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE.
- EC MOTOR CONDENSING FANS.
- ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE.
- SUCTION LINE ACCUMULATOR.
- FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY. 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER.
- AVERAGING INTAKE. EXAH AND DISCHARGE TEMPERATURE SENSORS DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT.
- 2" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-13 INSULATION-MINIMUM 20GA EXTERIOR W/ 14GA BASE.
- 81% EFFICIENT FURNACE WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 61 TURNDOWN WITH NG AND 51 TURNDOWN WITH LP.
- SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE.
- FULLY MODULATING HOT GAS REHEAT.
- 13 DEGREE LOW AMBIENT OPERATION.
- HAIL GUARD FOR CONDENSING COIL.
- RTU ECONOMIZER WITH FIXED ENTHALPY CONTROL.
- BAROMETRIC RELIEF DAMPER.

18. DOWN DISCHARGE/DOWN RETURN

**FAN OPTIONS**

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	PRV-1 RESTROOM	1	ECM WIRING PACKAGE - EXHAUST - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -MSC- (TELECO, CCW ROTATION)
		1	1 12-80D DAMPER
2	PRV-2	1	2 YEAR PARTS WARRANTY
		1	GREASE BOX
3	PRV-3	1	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELECO MOTOR), CCW ROTATION
		1	FAN BASE CERAMIC SEAL - DU/DRSHFA - INSTALLED AT PLANT - FOR GREASE DUCTS
4	EF-1	2	2 YEAR PARTS WARRANTY
		2	MGI - METAL GRILLE KIT
5	RTU-1 DINING	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	RTU TOTAL CFM MONITORING
		1	SHIP LOOSE GAS STRAINER 1"
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #8B, #47, #M4, OR #E2 PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE.
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	RTU3 DOWN DISCHARGE
		1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)
		1	DIVERHEAT STAT
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	20 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	20 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL
		1	REMOTE TEMPERATURE AND HUMIDITY SPACE SENSOR
		1	120V FIRE INPUT
		1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	OCCUPIED SCHEDULING
		1	RTU3 CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J-BOX.
		1	RTU ECONOMIZER - FIXED ENTHALPY CONTROL
		1	RTU3 ECONOMIZER BAROMETRIC RELIEF
		1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI
		1	RTU3 HAIL GUARD
		1	RTU3 DOWN RETURN
		1	VAV PACKAGE W/ MANUAL/DCV CONTROL (S71 VFD INCLUDED)
		1	INTAKE FIRESTAT SET TO 135°F
1	FREEZESTAT		
1	DISCHARGE FIRESTAT SET TO 240°F		
1	LOW AMBIENT COOLING OPERATION - DOWN TO OF AMBIENT		
1	RTU3 CURB DUCT HANGER		
1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)		
6	RTU-2 KITCHEN	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	SHIP LOOSE GAS STRAINER 1"
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	RTU3 DOWN DISCHARGE
		1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)
		1	DIVERHEAT STAT
		1	20 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	20 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL
		1	REMOTE TEMPERATURE AND HUMIDITY SPACE SENSOR
		1	OCCUPIED SCHEDULING
		1	120V FIRE INPUT
		1	RTU RETURN MOUNTED SMOKE DETECTOR AND SAMPLING TUBE - FACTORY INSTALLED
		1	RTU3 CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J-BOX.
		1	RTU ECONOMIZER - FIXED ENTHALPY CONTROL
		1	RTU3 ECONOMIZER BAROMETRIC RELIEF
		1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI
		1	RTU3 HAIL GUARD
		1	RTU3 DOWN RETURN
		1	VAV PACKAGE W/ MANUAL/DCV CONTROL (S71 VFD INCLUDED)
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #8B, #47, #M4, OR #E2 PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE.
		1	LOW AMBIENT COOLING OPERATION - DOWN TO OF AMBIENT
		1	RTU3 CURB DUCT HANGER
		1	UNIT MOUNTED VFD CONFIGURED FOR DCV
1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)		

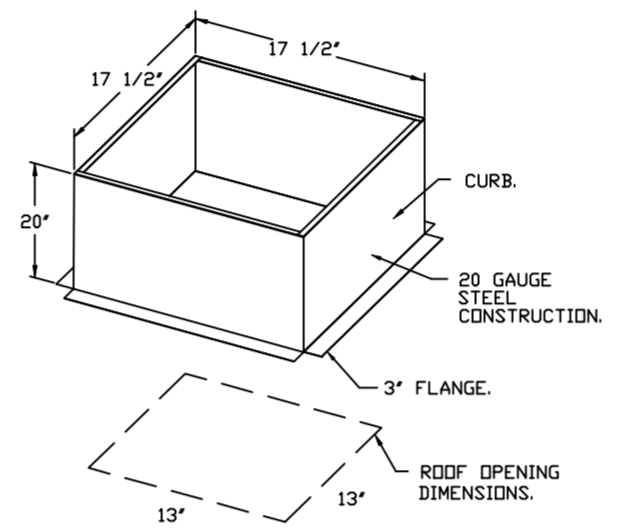
FAN #1 DR12HFA - EXHAUST FAN (PRV-1 RESTROOM)



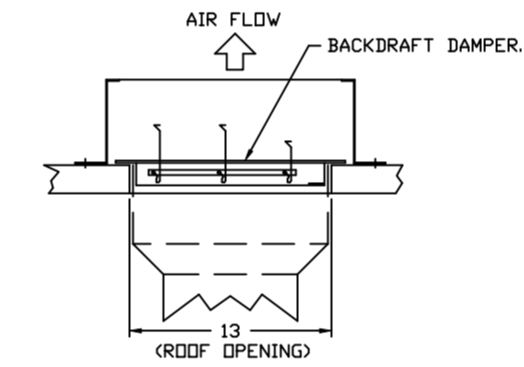
TOP VIEW

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

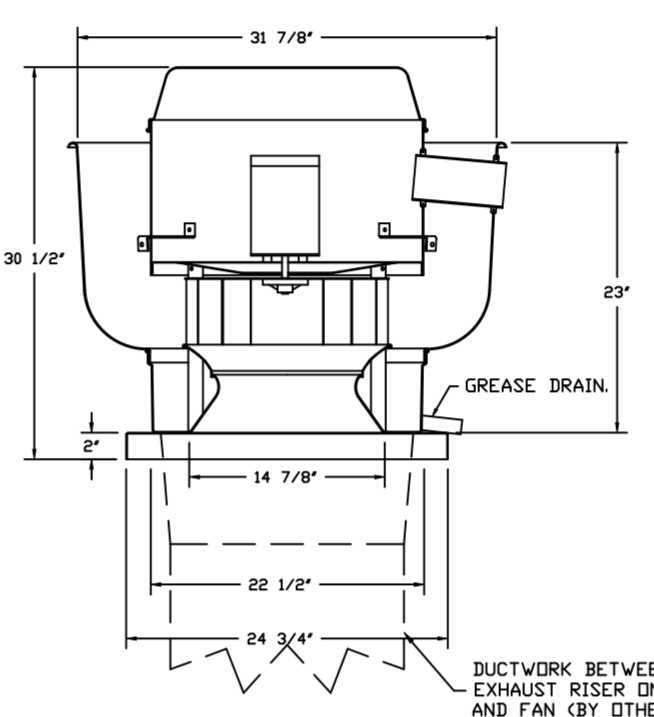
- DEFINITIONS:**
- ECM WIRING PACKAGE - EXHAUST - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -MSC- (TELECO, CCW ROTATION)
  - 1 12-80D DAMPER
  - 2 YEAR PARTS WARRANTY.



BACKDRAFT DAMPER INSTALLATION



FANS #2 (PRV-2), #3 (PRV-3) - DUBSHFA EXHAUST FAN



TOP VIEW

**FEATURES:**

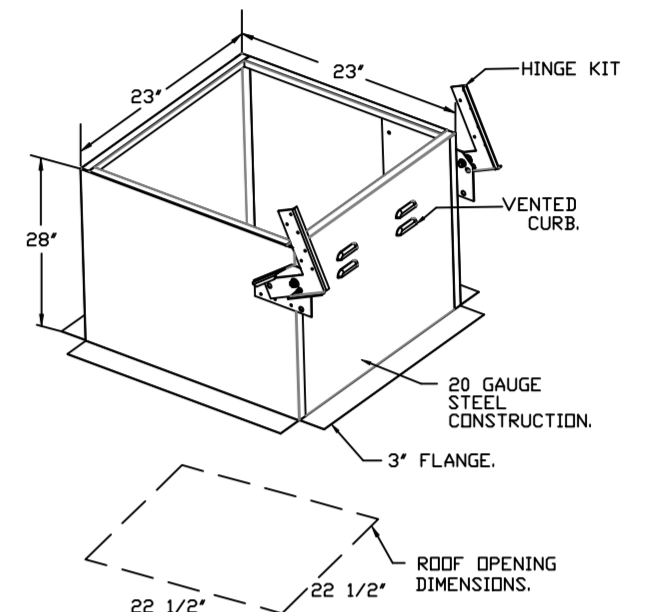
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL705 AND UL50-5645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEW 3R SAFETY DISCONNECT 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 (315°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

**DEFINITIONS:**

- GREASE BOX
- ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELECO MOTOR), CCW ROTATION
- FAN BASE CERAMIC SEAL - DU/DRSHFA - INSTALLED AT PLANT - FOR GREASE DUCTS
- 2 YEAR PARTS WARRANTY.



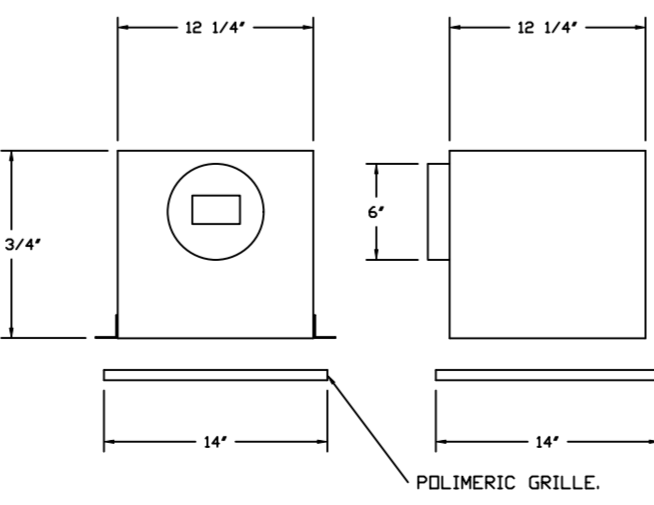
**FAN ACCESSORIES**

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

**CURB ASSEMBLIES**

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	PRV-1 RESTROOM	25 LBS	CURB	17.500"W X 17.500"L X 20.000"H
2	# 2	PRV-2	49 LBS	CURB	23.000"W X 23.000"L X 28.000"H VENTED HINGED
3	# 3	PRV-3	49 LBS	CURB	23.000"W X 23.000"L X 28.000"H VENTED HINGED
5	# 5	RTU-1 DINING	104 LBS	CURB	59.500"W X 91.000"L X 14.000"H 0.250@2.000 PITCH ALONG WIDTH, RIGHT INSULATED.
6	# 6	RTU-2 KITCHEN	104 LBS	CURB	59.500"W X 91.000"L X 14.000"H 0.250@2.000 PITCH ALONG WIDTH, RIGHT INSULATED.

FAN #4 CFA 100CA - EXHAUST FAN (EF-1)



POLYMERIC GRILLE.

- FEATURES:**
- 1/2" ACOUSTIC HOUSING INSULATION.
  - 20 GA. GALVANIZED STEEL HOUSING.
  - PLUG TYPE DISCONNECT.
  - BUILD IN AUTOMATIC BACKDRAFT DAMPER.
  - ANCA SOUND & AIR CERTIFIED.
  - UL LISTED.
  - CAN BE INSTALLED IN CEILING OR WALL.
  - 8 POSITION MOUNTING BRACKETS.

- DEFINITIONS:**
- MGI - METAL GRILLE KIT.
  - 2 YEAR PARTS WARRANTY.

UNIT NUMBER	HMI #	HMI SCHEDULE
FAN #5	HMI #1 - UNIT HMI # 1	MOUNTED IN UNIT NOT AVERAGED 55
FAN #5	HMI #2 - SPACE HMI # 1	MANAGER OFFICE NOT AVERAGED 56
FAN #6	HMI #1 - UNIT HMI # 1	MOUNTED IN UNIT NOT AVERAGED 55
FAN #6	HMI #2 - SPACE HMI # 1	MANAGER OFFICE NOT AVERAGED 56

**REVISIONS**

DESCRIPTION	DATE:



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CULVERS FORT WAYNE IN  
FORT WAYNE, IN, 46803

DATE: 4/11/2024

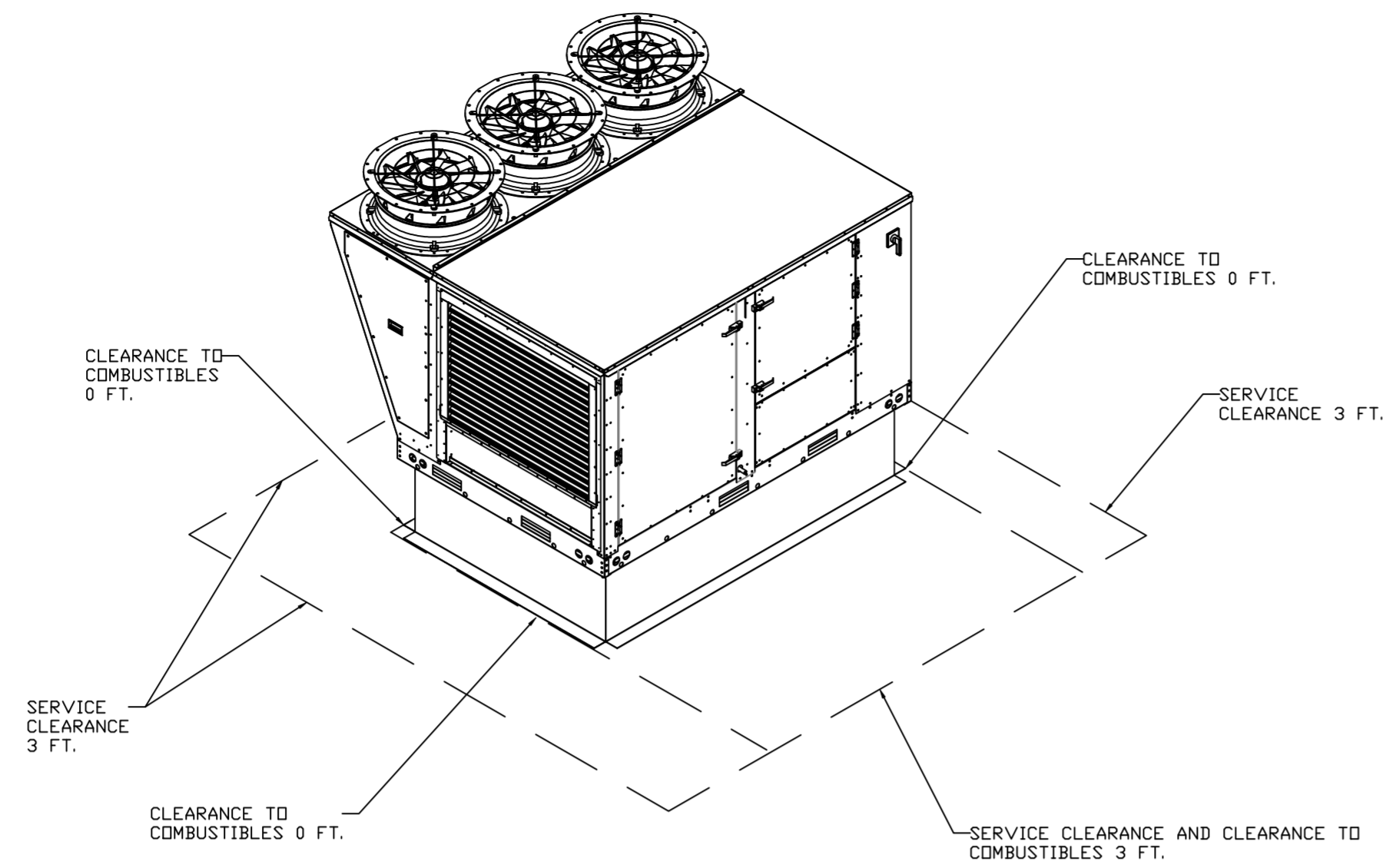
DWG.#: 6734349

DRAWN BY: sluddyjr

SCALE: 1/2" = 1'-0"

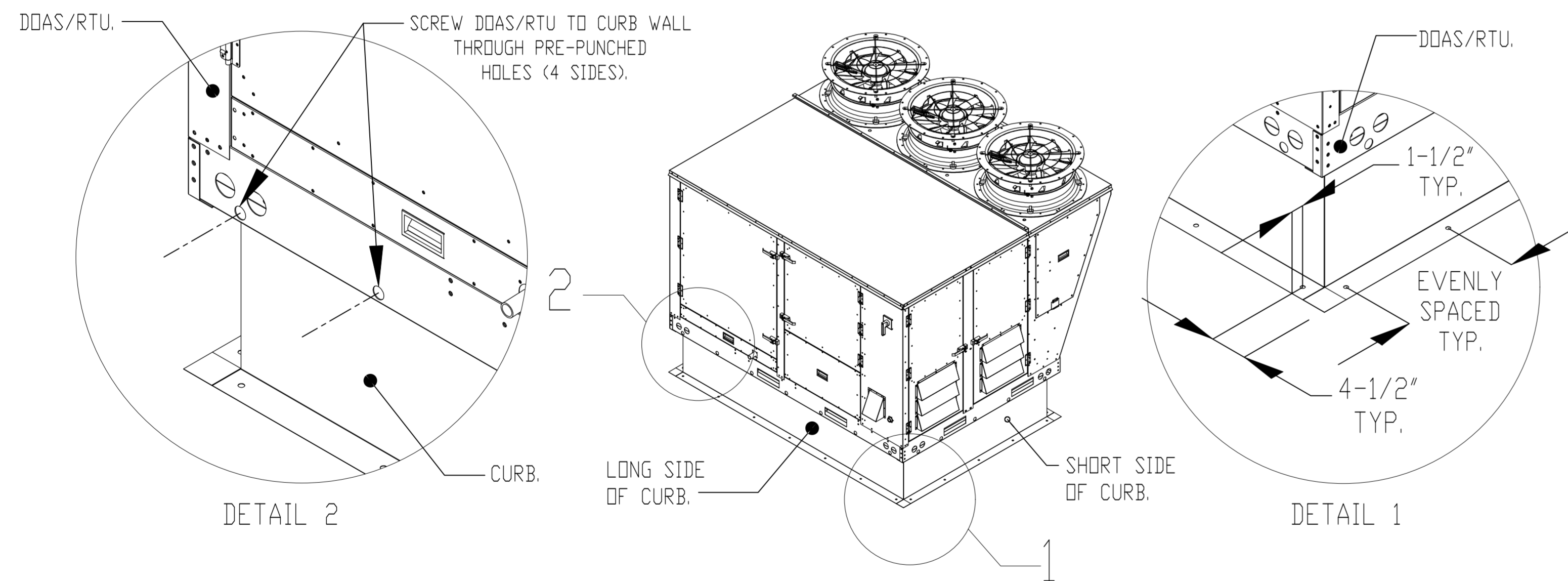
MASTER DRAWING

SHEET NO. 4



## TYPICAL DOAS/RTU ROOF MOUNTING INSTALLATION INSTRUCTIONS

1. SECURE THE CURB TO THE ROOF FRAMING MEMBERS BY DRILLING 1/4" PILOT HOLES IN THE CURB FLANGES AT LOCATIONS SHOWN IN THE DIAGRAM BELOW. USING 3/8" X 2" ZINC PLATED STEEL LAG BOLTS, AND ZINC PLATED WASHERS, SCREW THROUGH THE CURB FLANGES AND INTO THE ROOF FRAMING MEMBERS. A MINIMUM OF (5) LAG BOLTS ON EACH SHORT SIDE, AND (7) LAG BOLTS ON EACH LONG SIDE IS REQUIRED.
2. SECURE THE UNIT BASE TO THE SIDE WALLS OF THE CURB USING (24) 1/4"-14 X 2" SELF-DRILLING, STEEL ZINC PLATED SCREWS. PRE-PUNCHED HOLES HAVE BEEN PROVIDED FOR EACH SCREW LOCATION.



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6734349

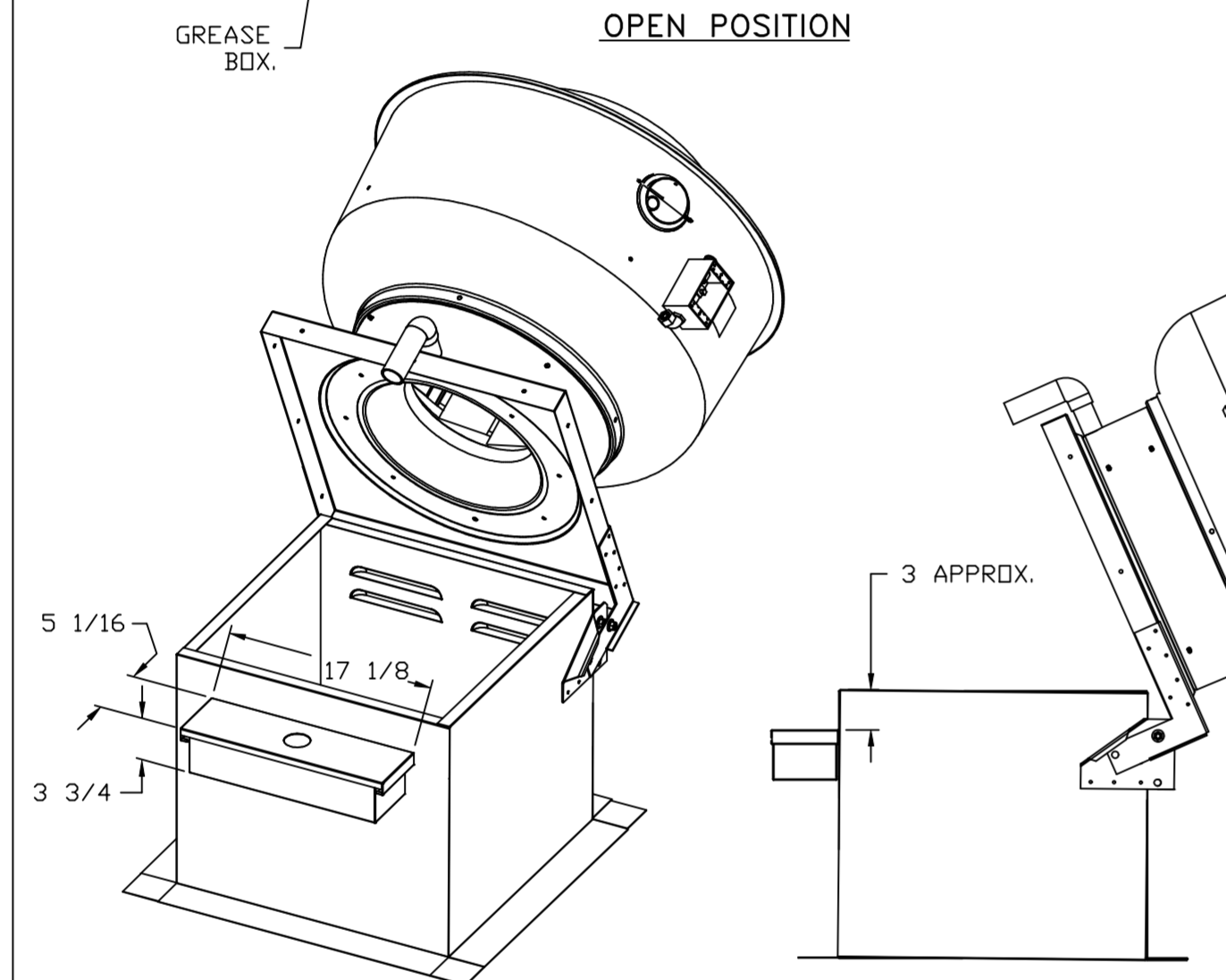
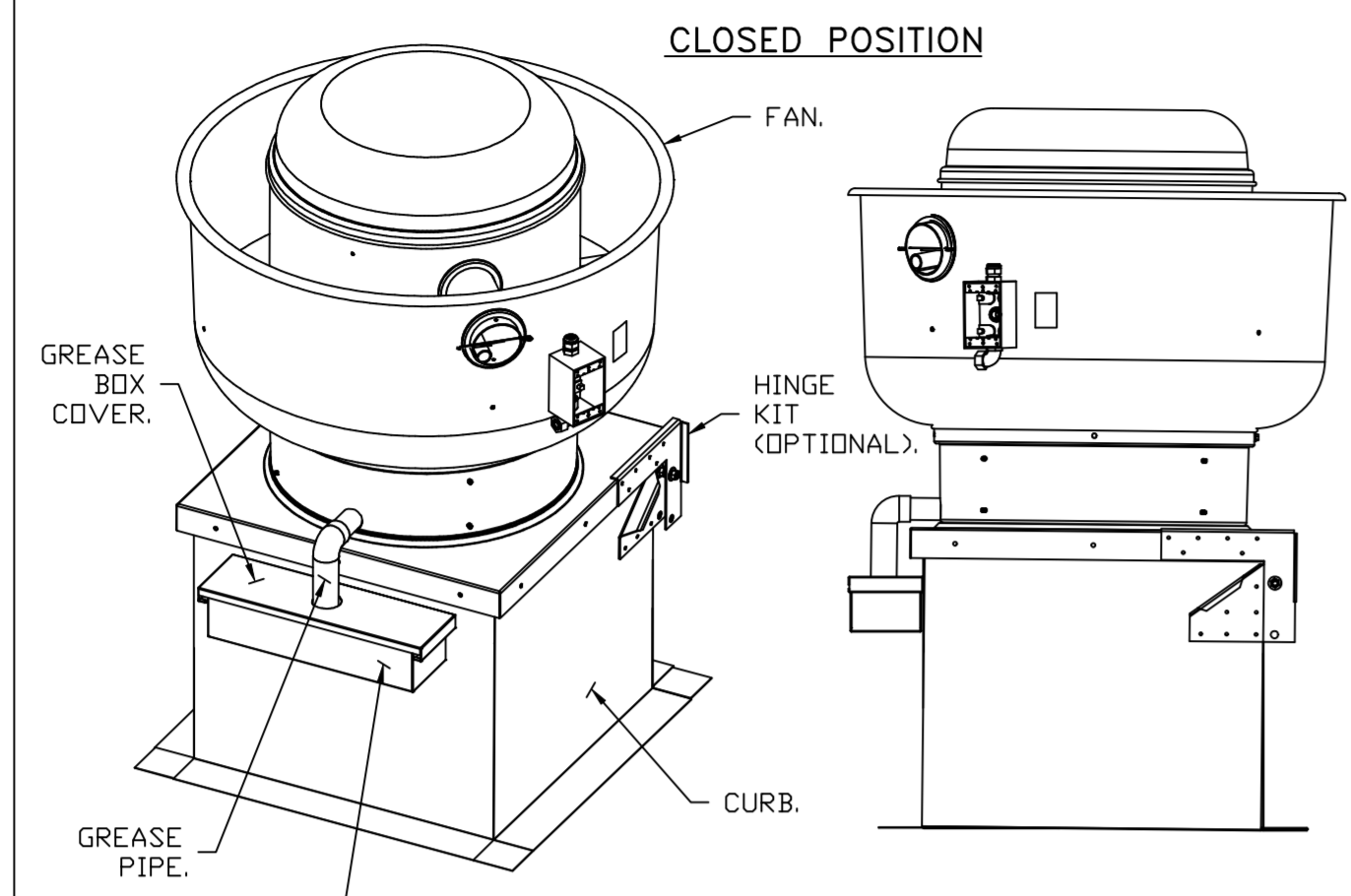
DRAWN BY: sluddy jr

SCALE:  
3/4" = 1'-0"

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SHEET NO.

# GREASE BOX INSTALLATION



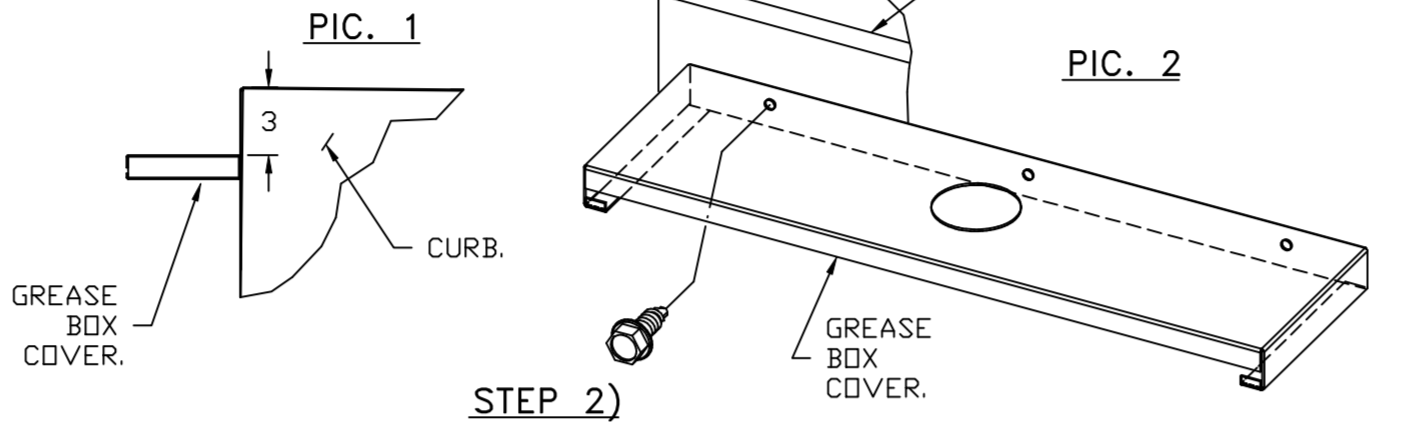
## PARTS INCLUDED

- GREASE BOX.
- GREASE BOX COVER.
- GREASE PIPE.
- SHEET METAL SCREWS  
3 - LONG (3/4" LG.).

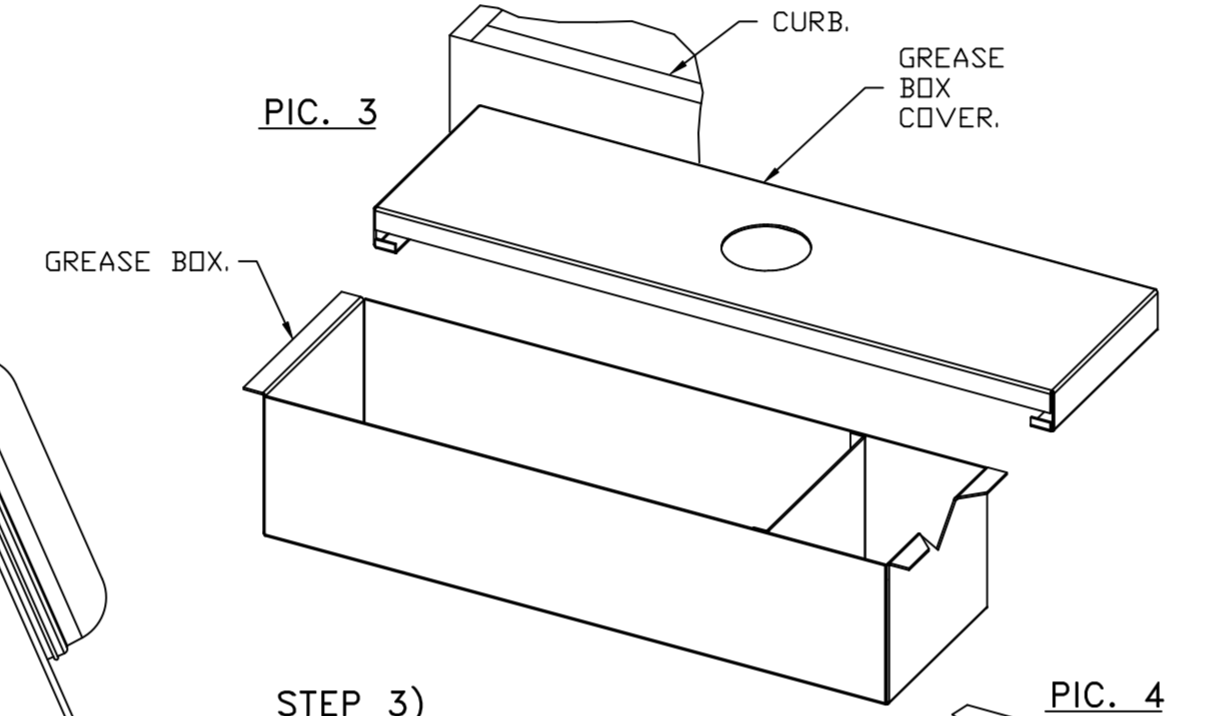
GREASEBOX  
REV.#2 08/19/02

## GREASE BOX FIELD INSTALLATION

**STEP 1)**  
ATTACH GREASE BOX COVER TO THE CURB, HOLD 3" DIMENSION AS SHOWN ON PIC. 1. SCREW GREASE BOX COVER TO CURB USING (3) LONG (3/4" LG.) SCREWS AS SHOWN ON PIC. 2.



**STEP 2)**  
ATTACH GREASE BOX TO GREASE BOX COVER, SLIDE AND DROP. AS SHOWN ON PIC. 3.



**STEP 3)**  
INSTALL GREASE PIPE AS SHOWN ON PIC. 4.

\*NOTE: UL 705 INSTALL.

REVISIONS	
DESCRIPTION	DATE

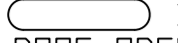
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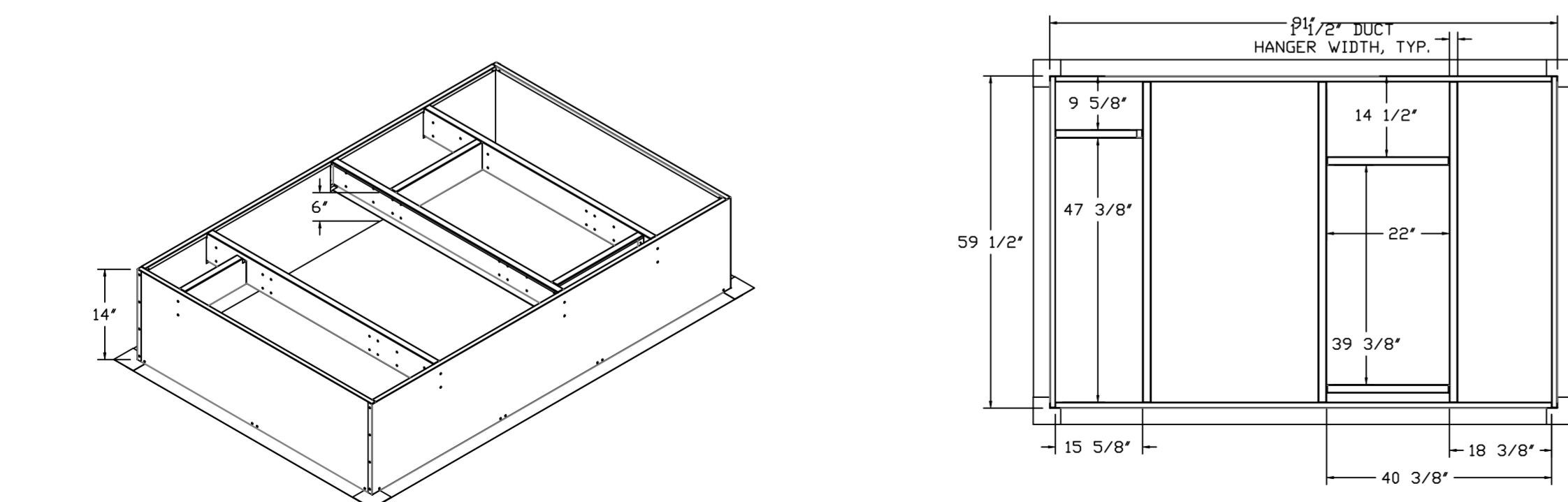
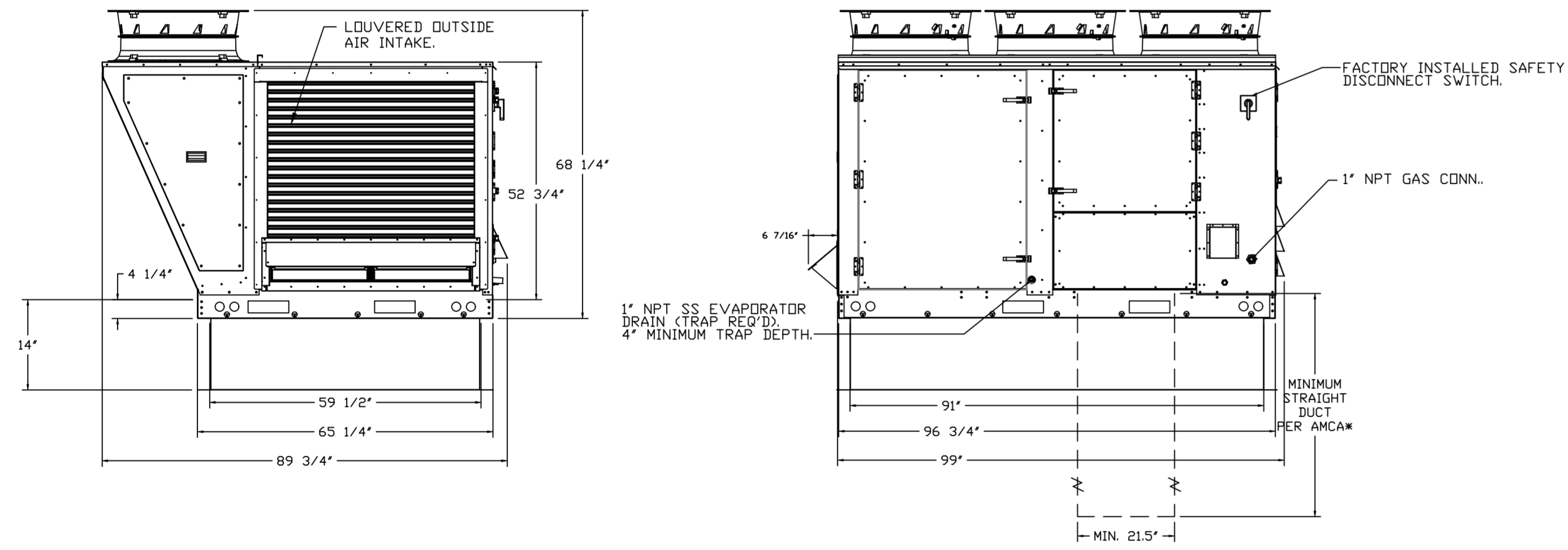
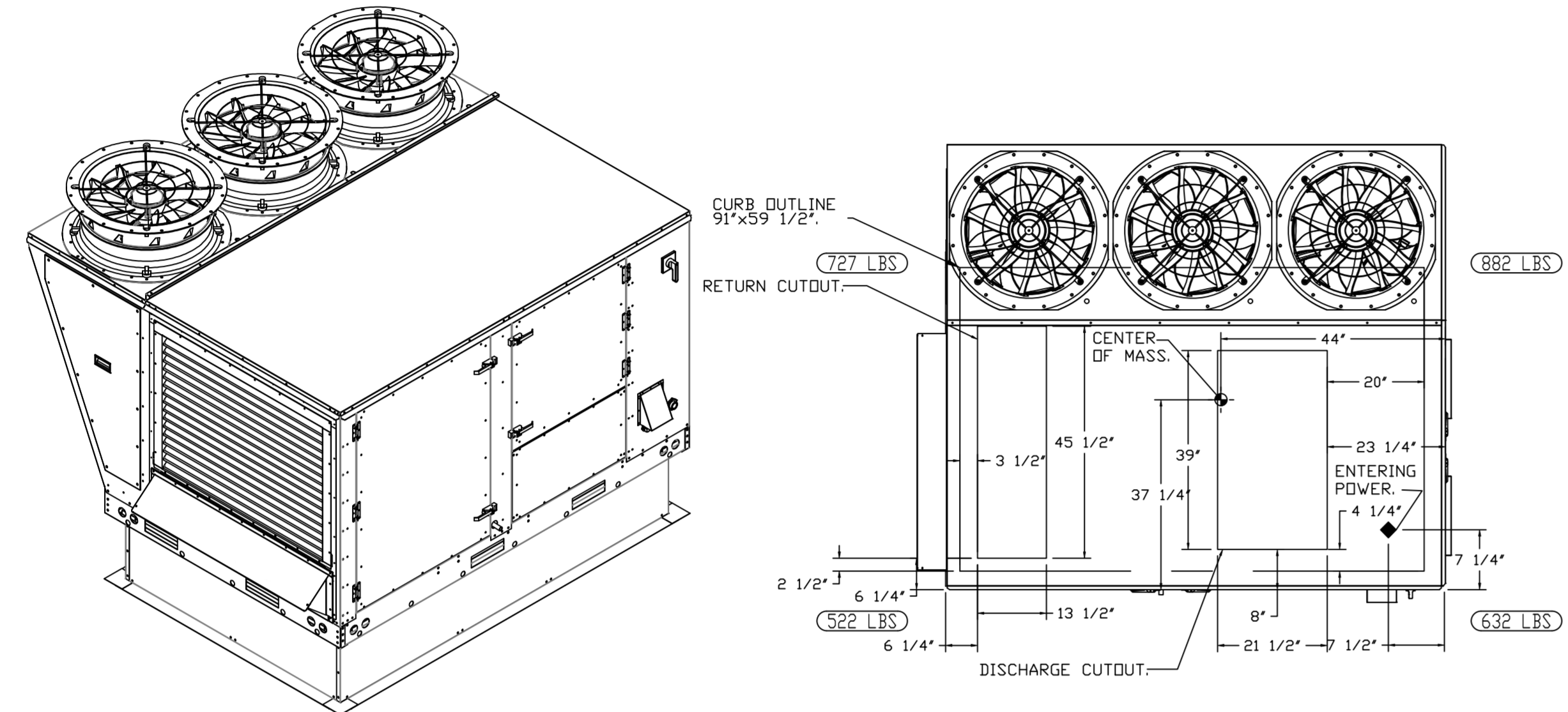
DATE: 4/11/2024  
DWG.#: 6734349  
DRAWN BY: sluddy jr  
SCALE: 3/4" = 1'-0"  
MASTER DRAWING

SHEET NO.  
6

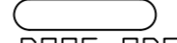
FAN #5 CASRTU3-1.300-24MF-20T - HEATER (RTU-1 DINING)

- NOTES:
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
  -  DENOTES CORNER WEIGHT.
  - ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
  - CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.

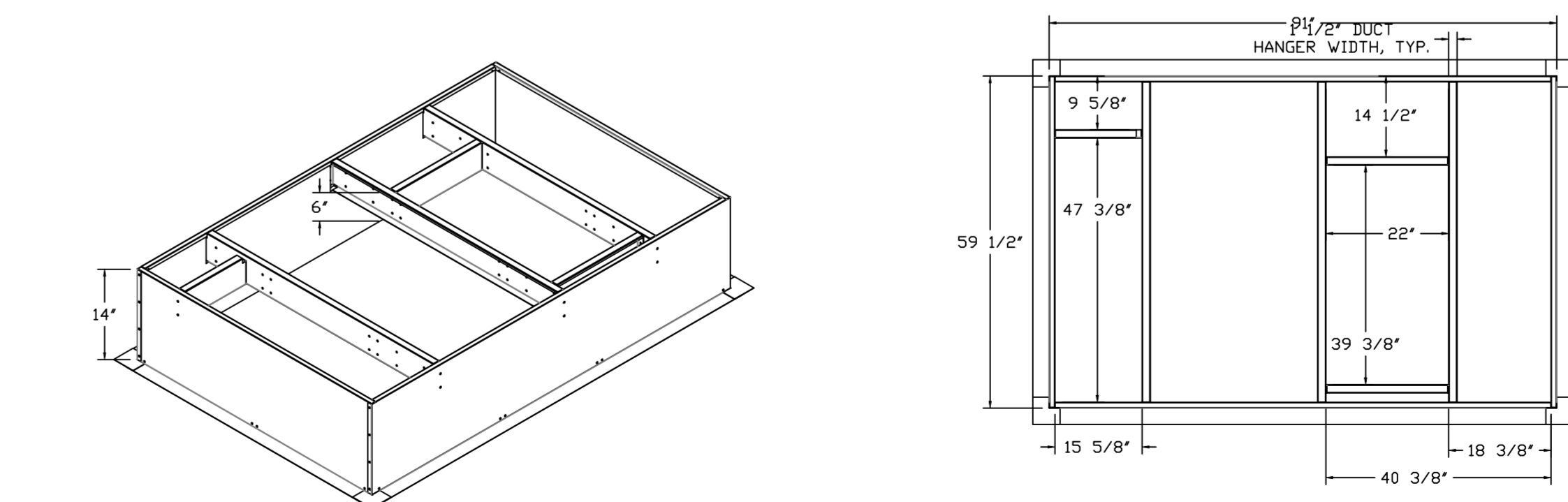
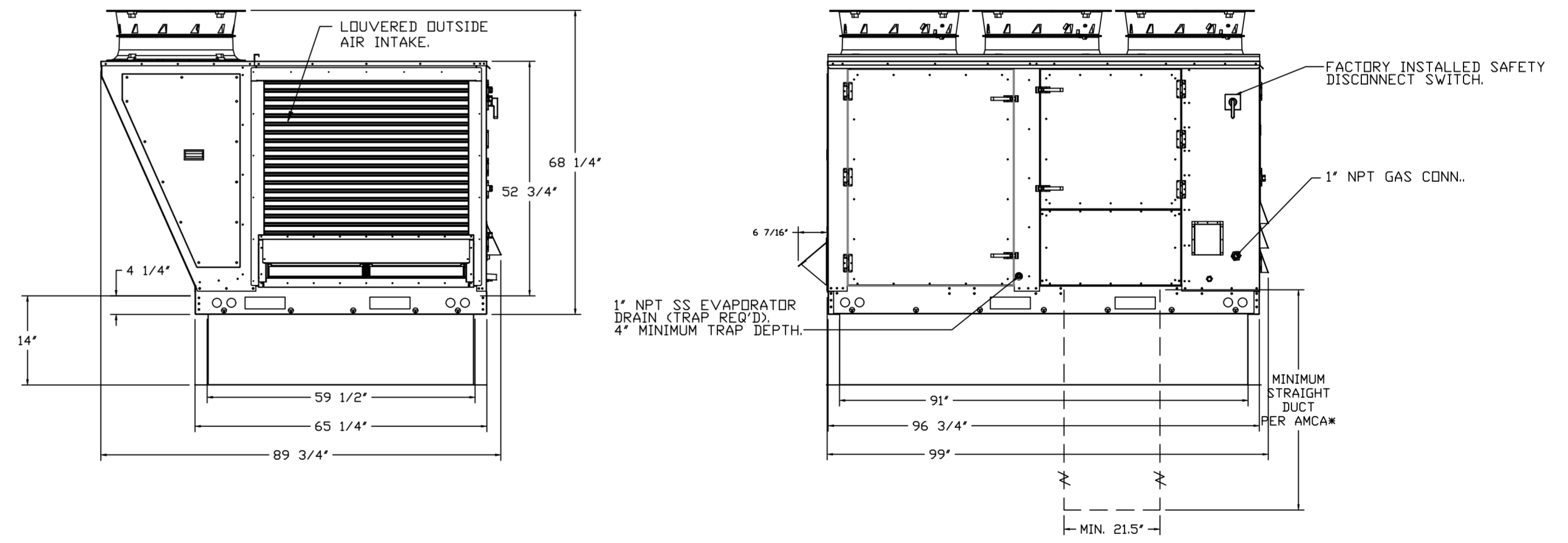
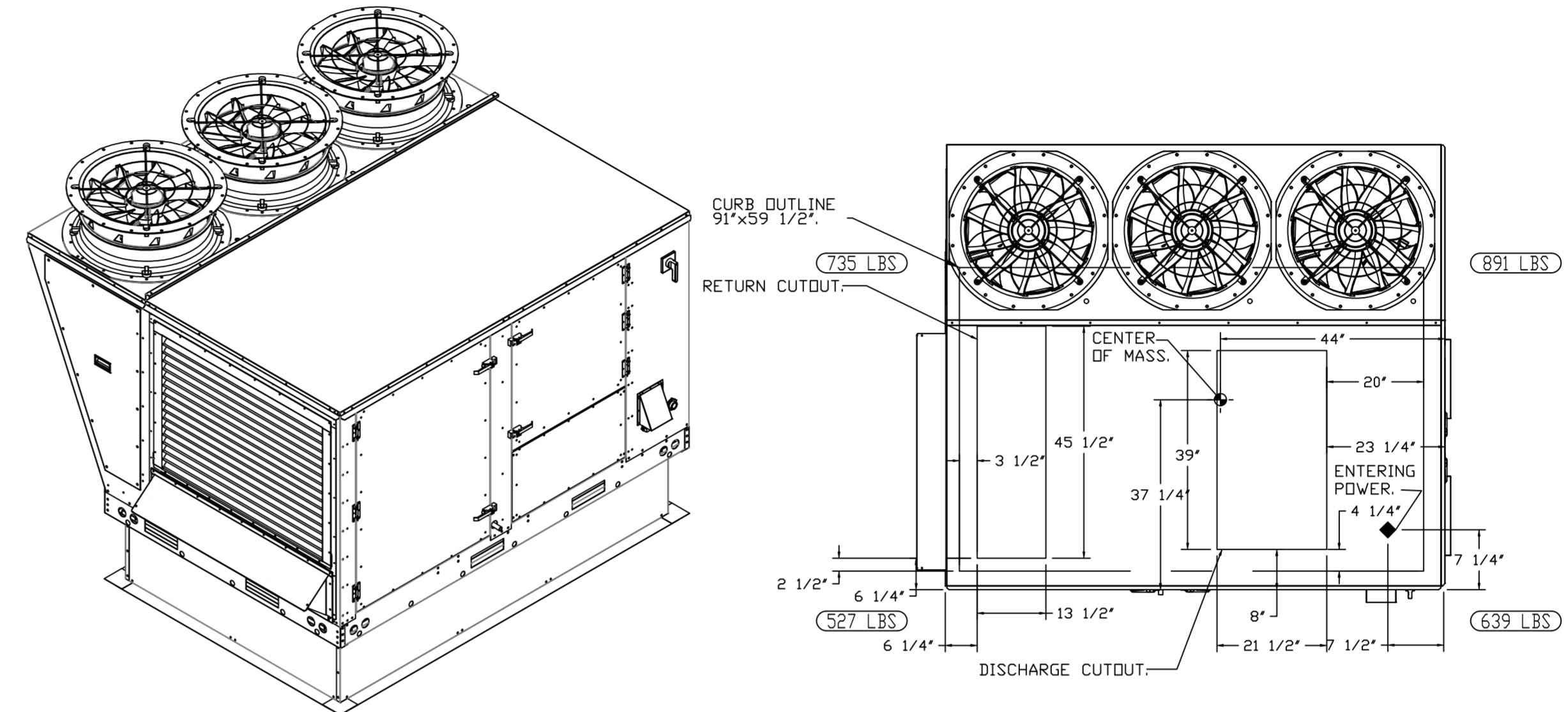
\*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 21.5" x 39".



FAN #6 CASRTU3-1.250-24MF-20T - HEATER (RTU-2 KITCHEN)

- NOTES:
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
  -  DENOTES CORNER WEIGHT.
  - ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
  - CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.

\*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 21.5" x 39".



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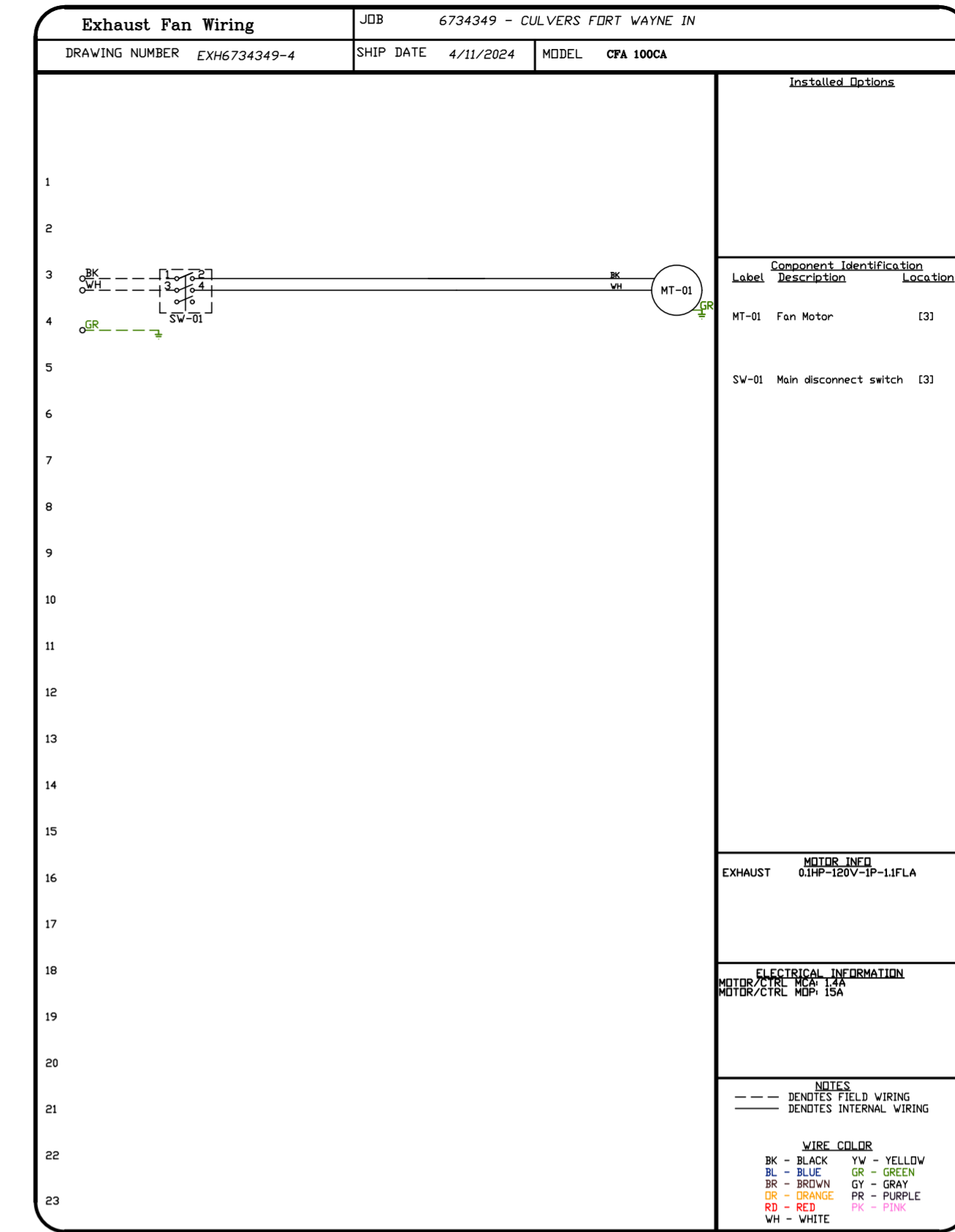
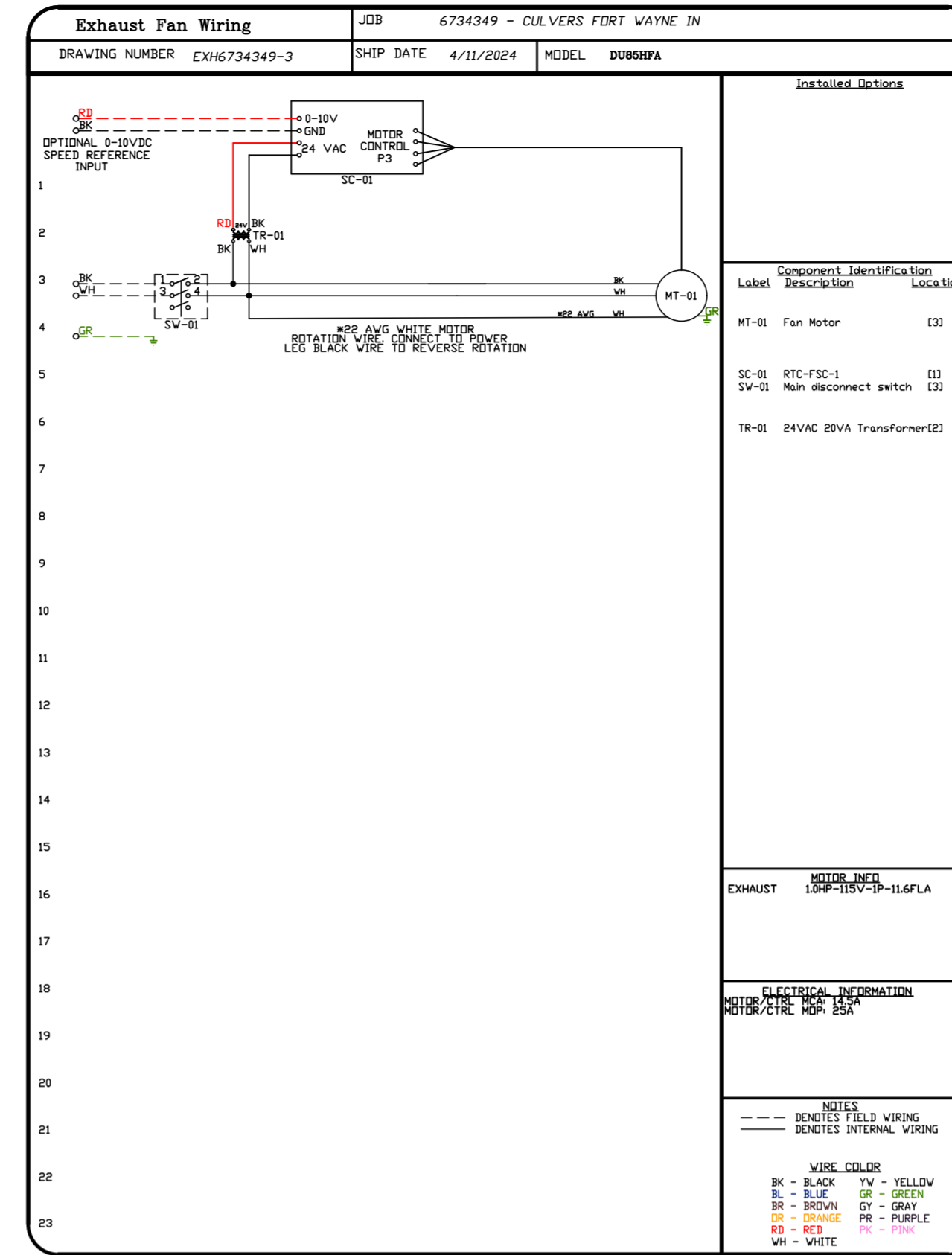
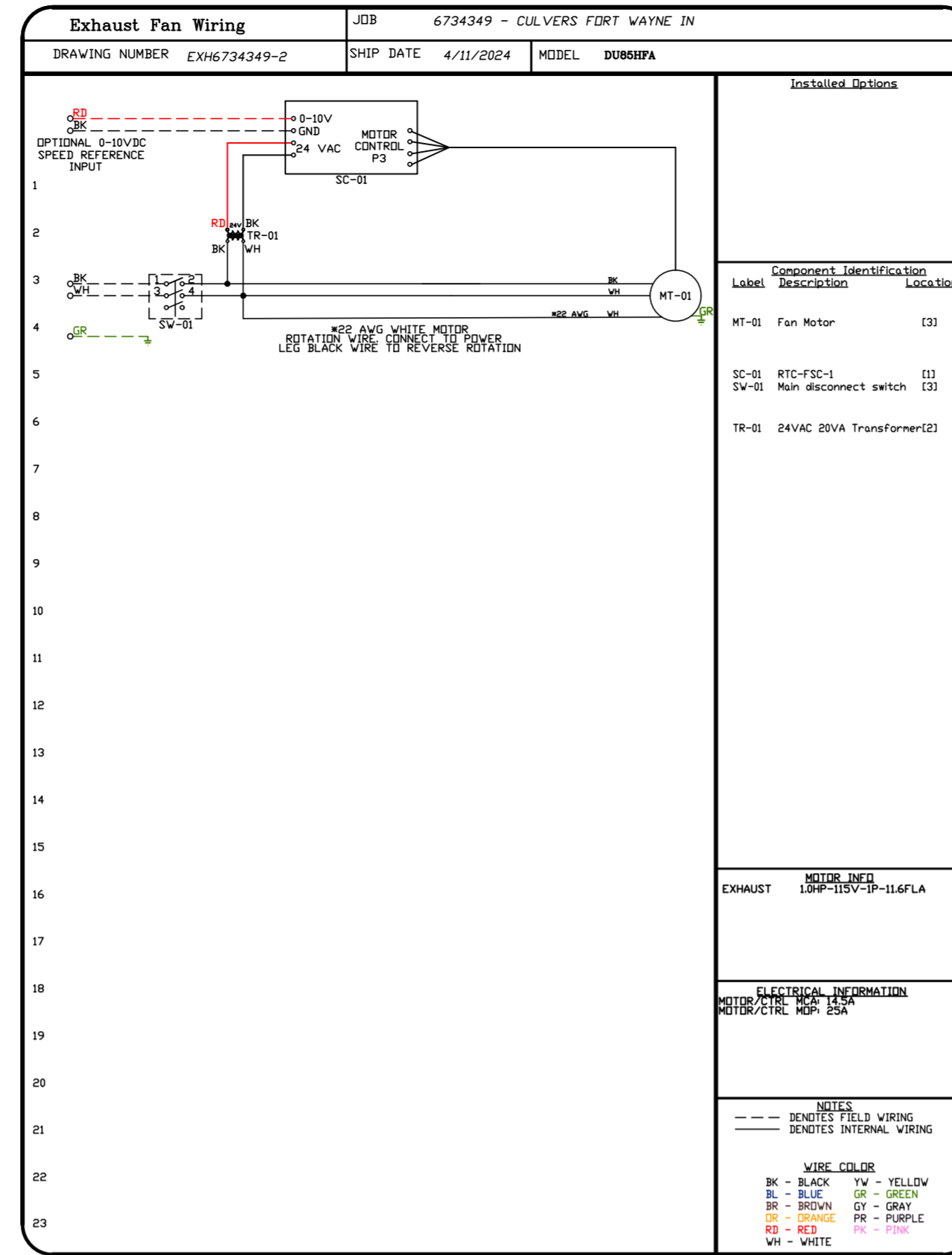
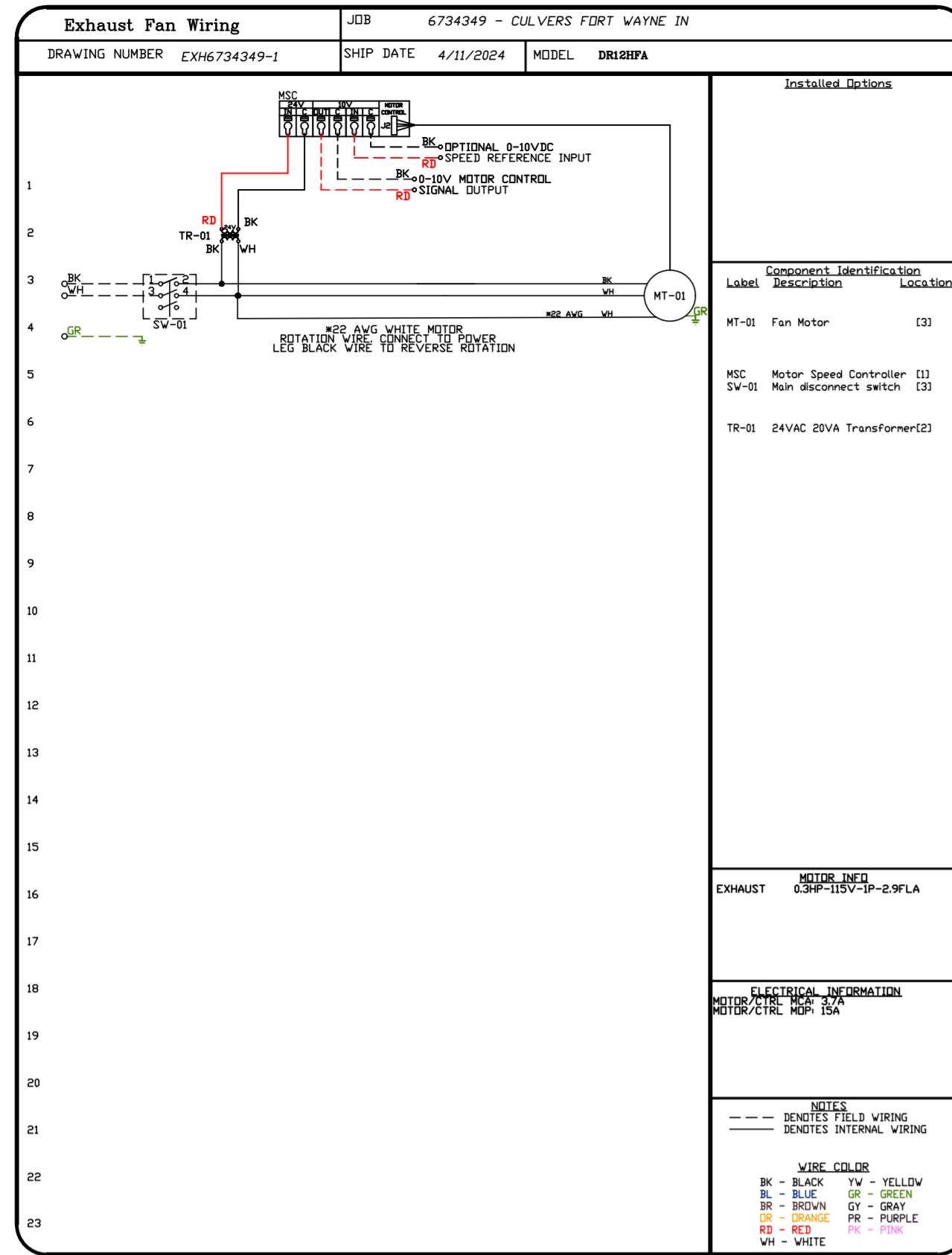
DWG.#: 6734349

DRAWN BY: sluddy jr

SCALE: 1/2" = 1'-0"

MASTER DRAWING

SHEET NO.



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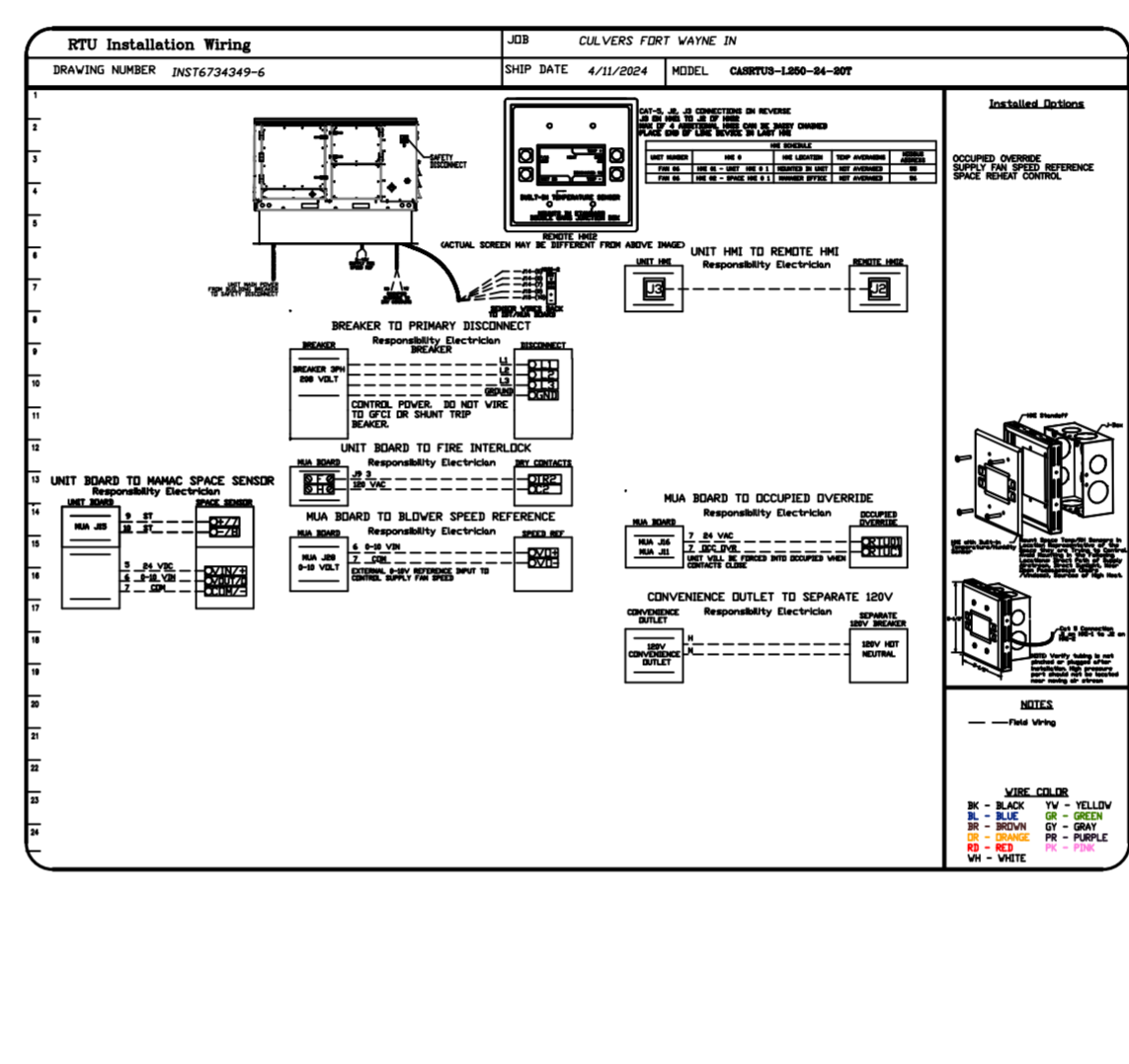
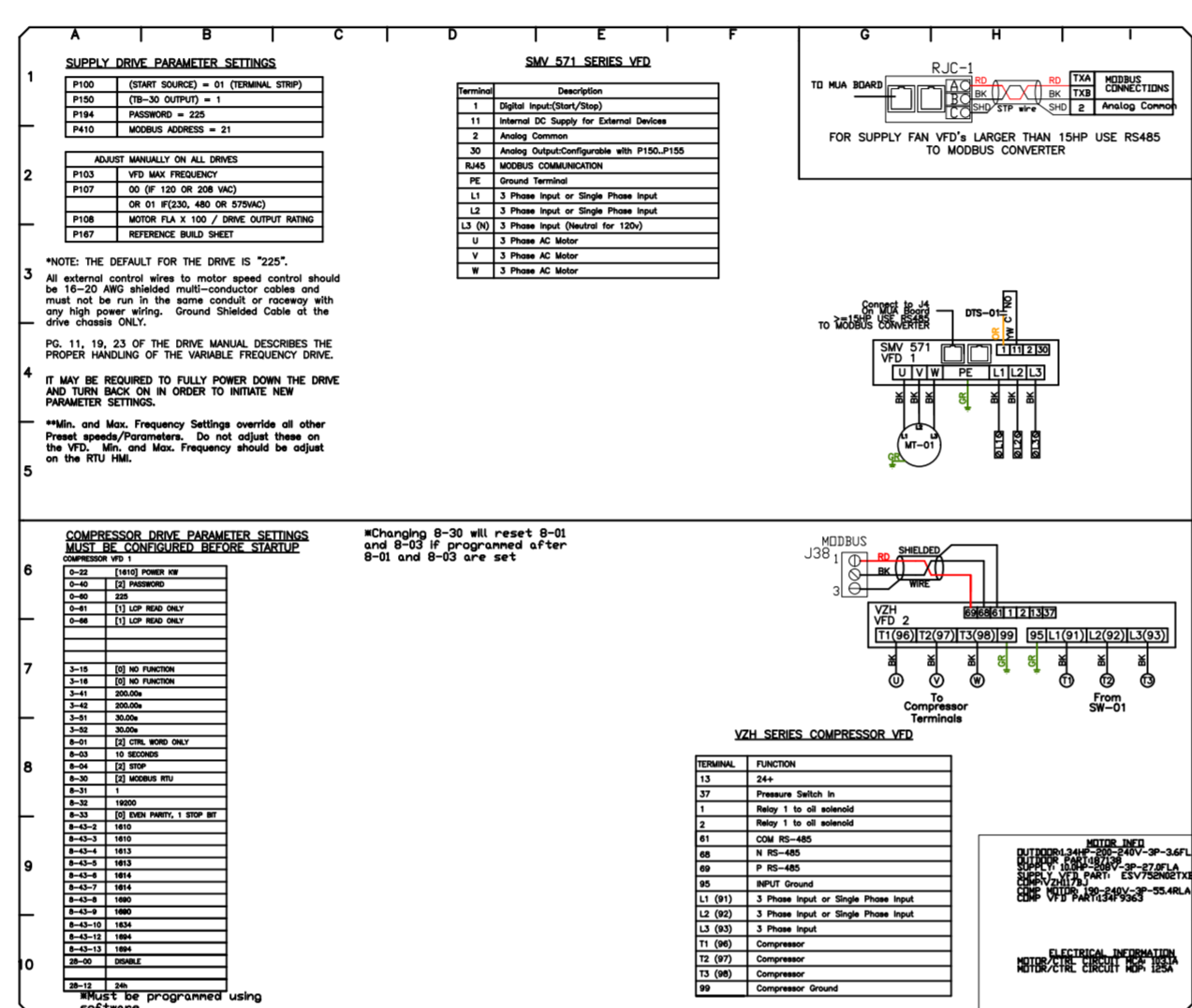
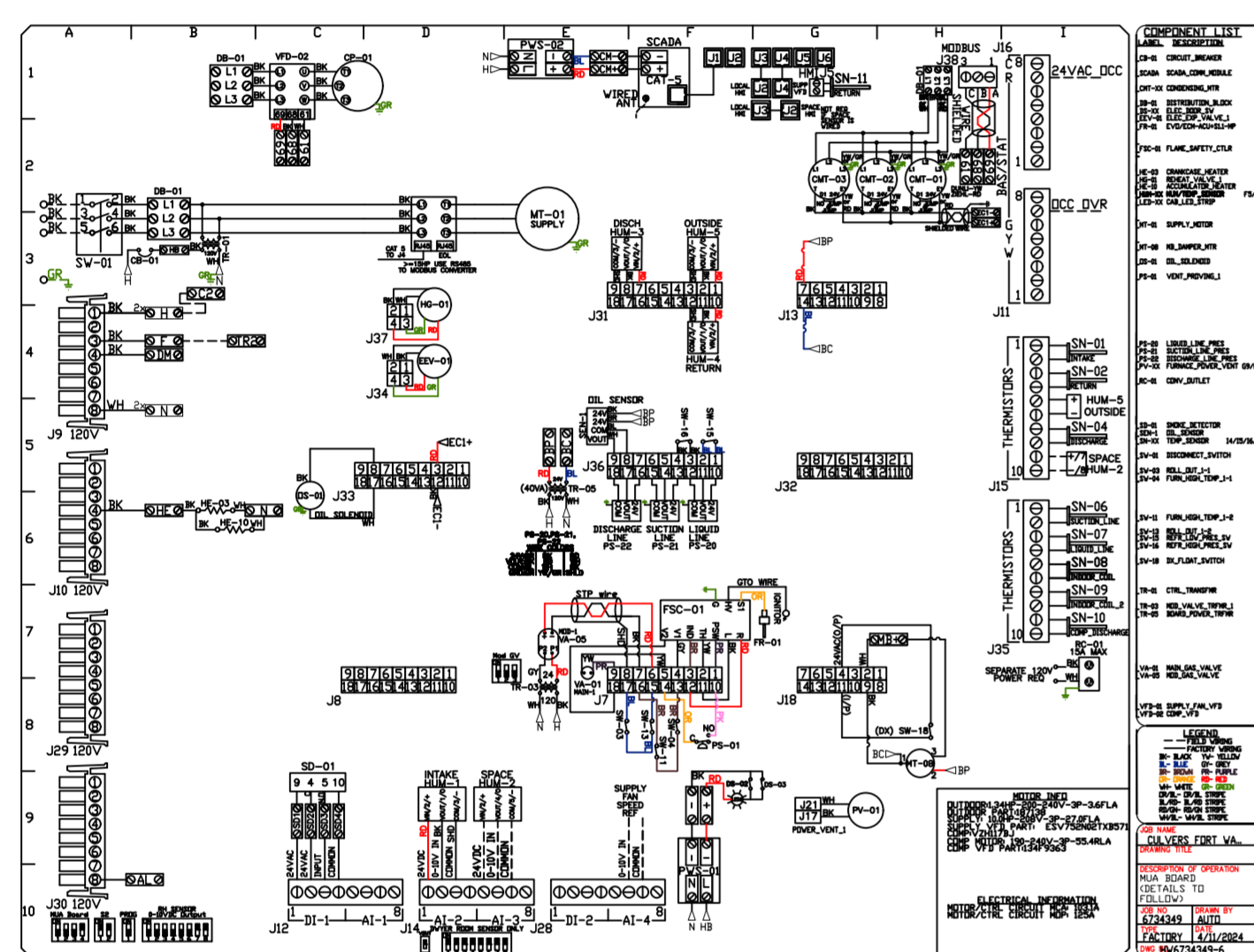
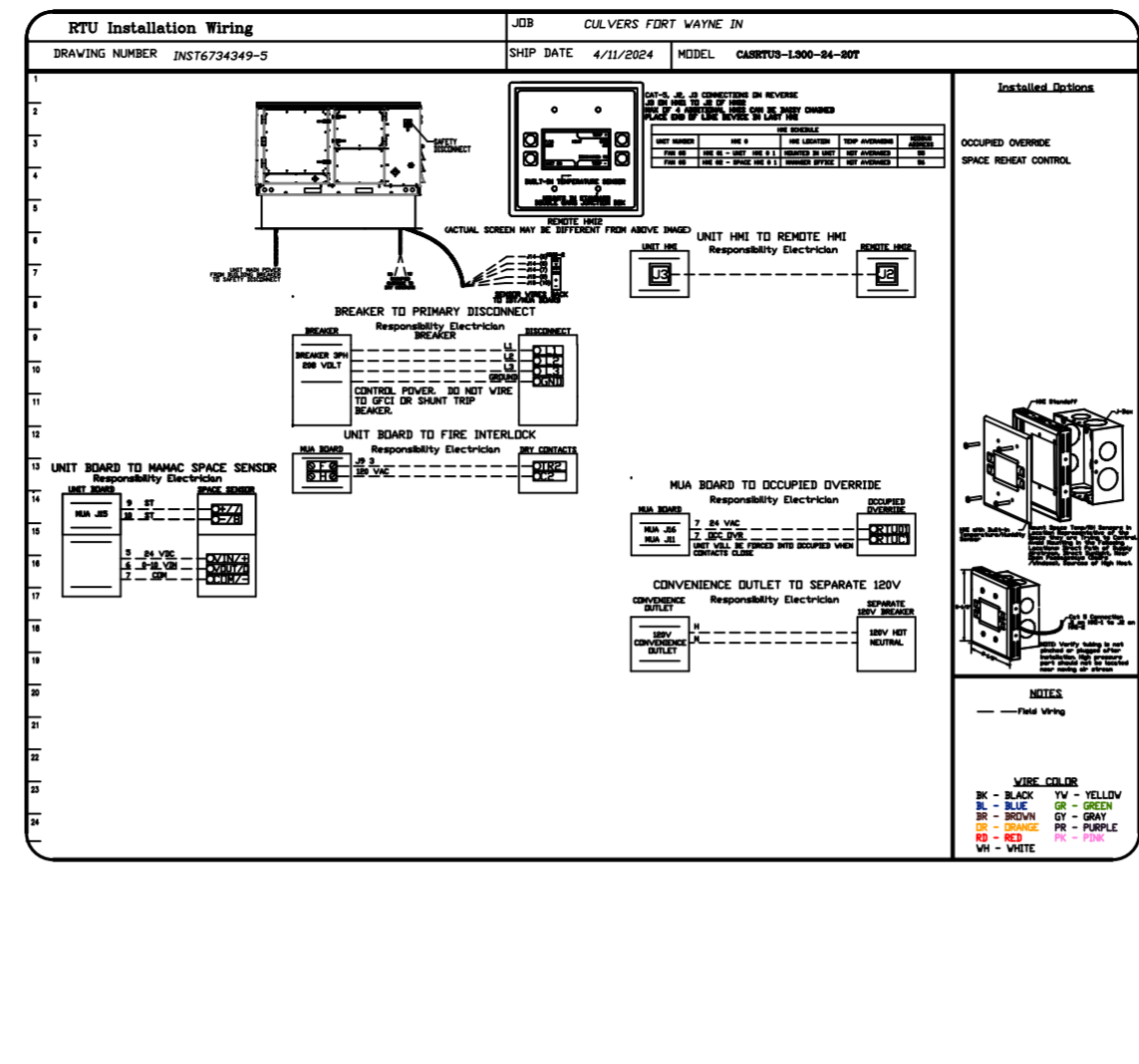
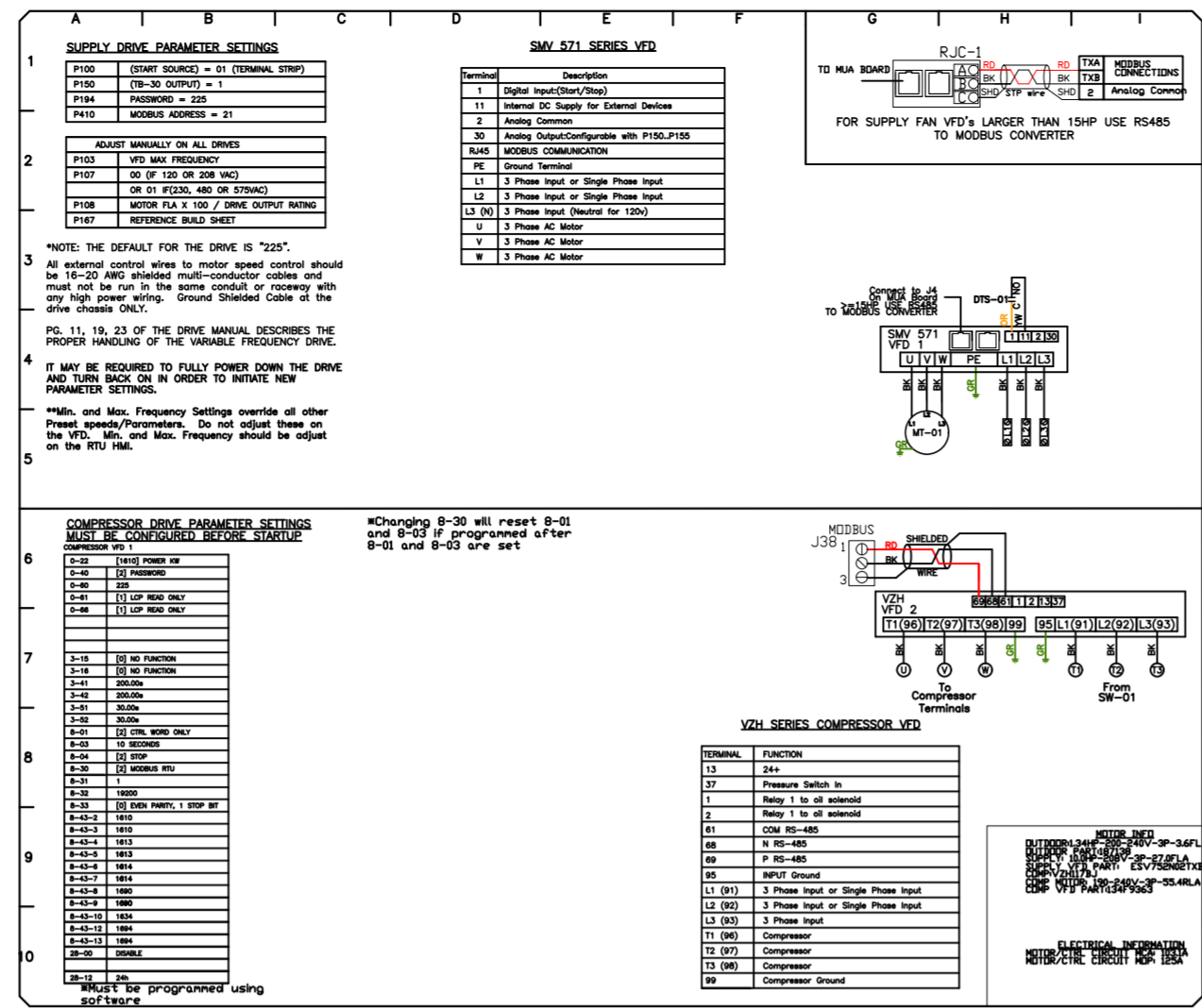
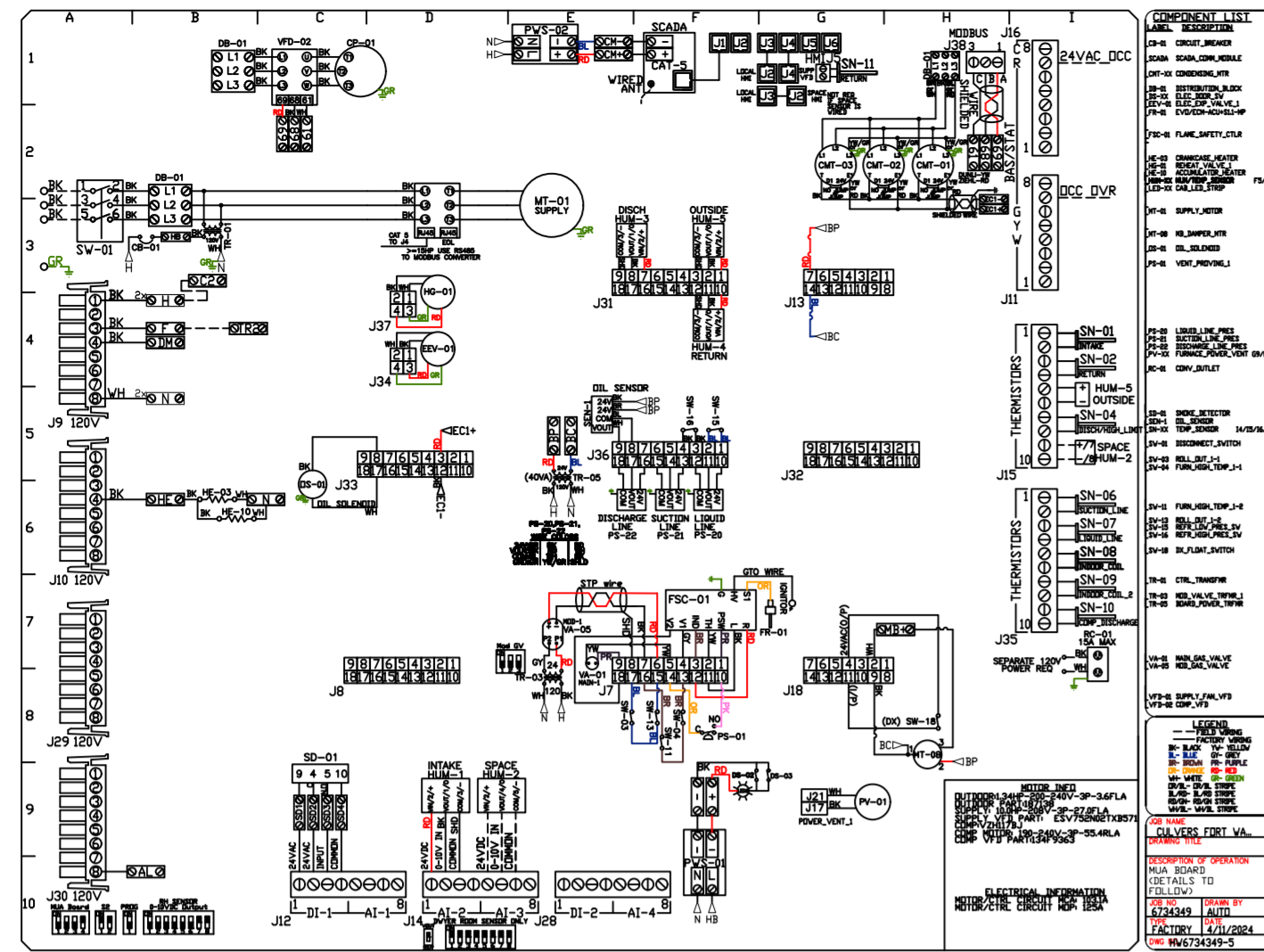
**DWG.#:**  
6734349

**DRAWN BY:** sluddyjr

**SCALE:**  
3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.**  
8



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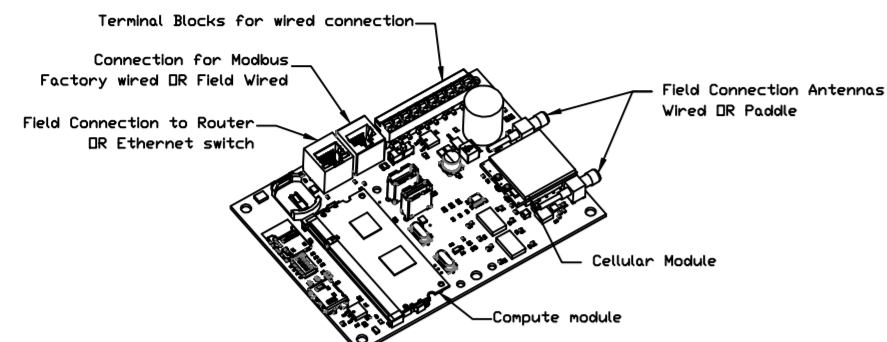
SCALE:  
1/2" = 1'-0"

MASTER DRAWING

SHEET NO.  
9

ELECTRICAL PACKAGE - JOB#6734349

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	#	HP	VOLT	FLA
1		SC-E012011MA	WALL MOUNT IN SS BDX	SHIP LOOSE W/ PREWIRE	1 LIGHT 1 FAN	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	PRV-2	EXHAUST	1	1.000	115	11.6
							PRV-3	EXHAUST	1	1.000	115	11.6
							RTU-2 Kitchen	SUPPLY	3	10.000	208	27.0

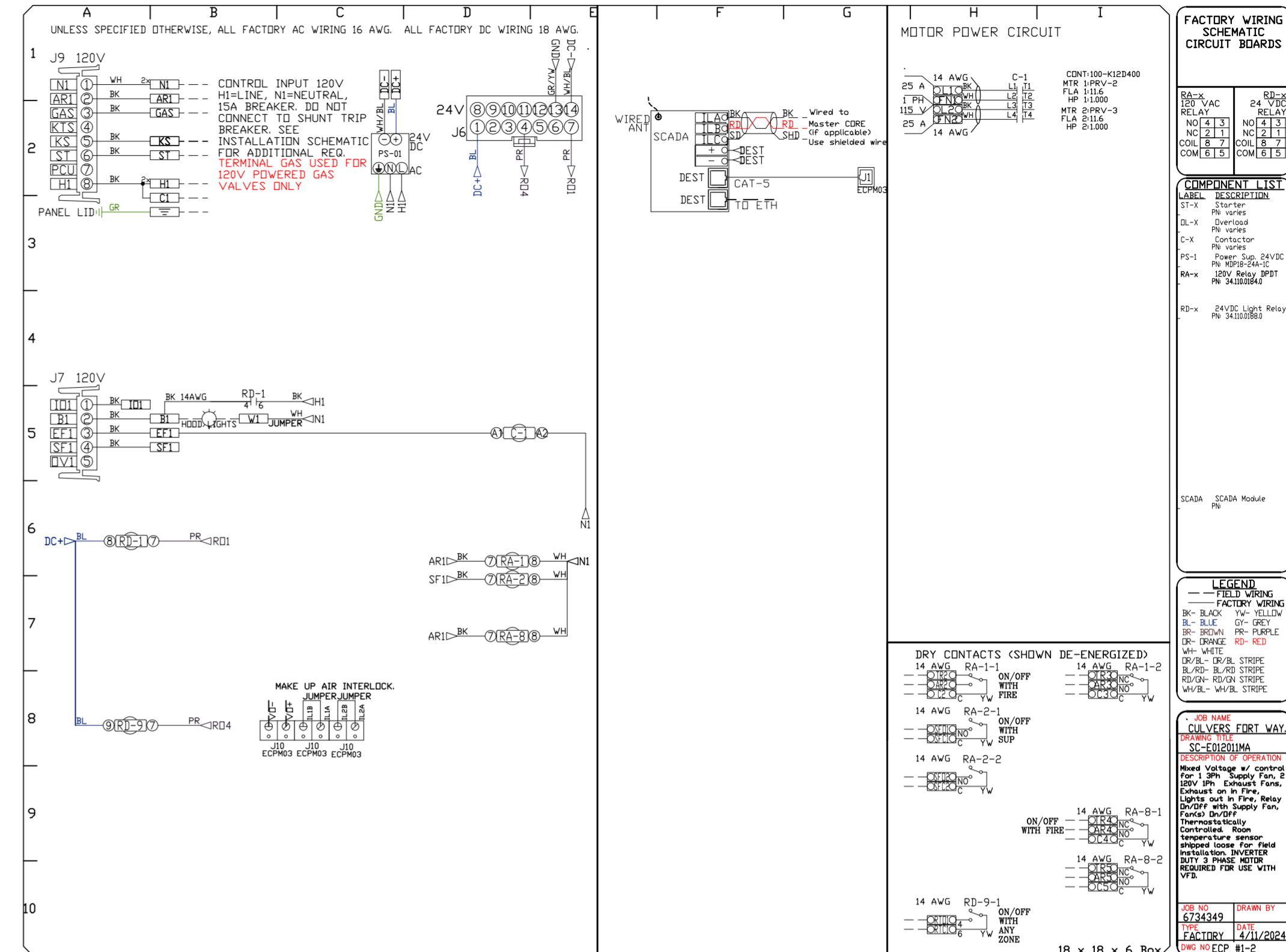
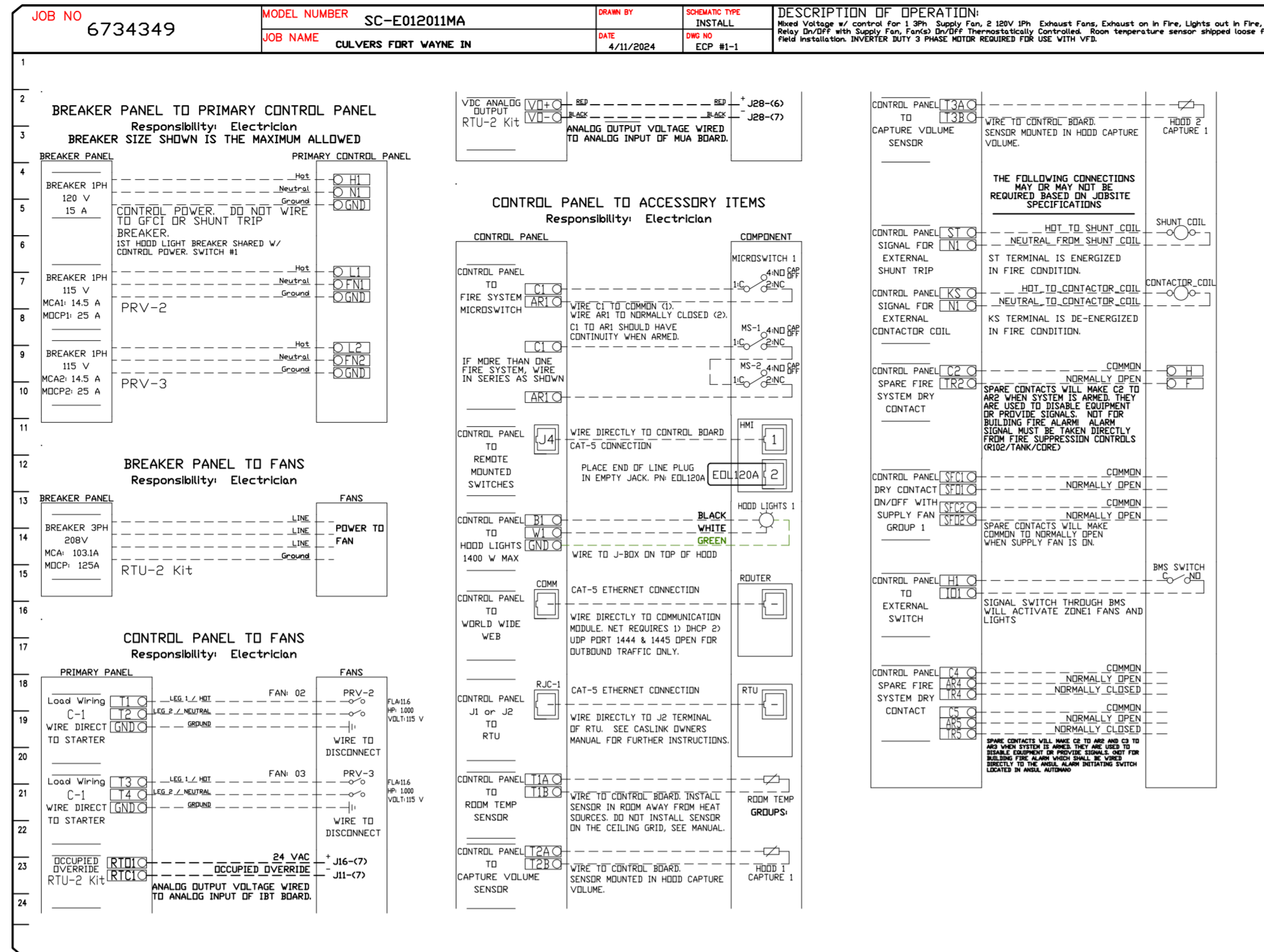


CASlink Monitor and Control

- 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	DC Packages	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
MHA Discharge Temperature	MONITOR	MHA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR	Controller Faults	MONITOR
Fan Amperage	MONITOR	Fan Status	MONITOR
Fan Power	MONITOR	PCU Faults	MONITOR
VFD Faults	MONITOR	PCU Filter Clog Percentages	MONITOR
Controller Faults	MONITOR	Flow Condition	MONITOR
Fan Status	MONITOR	CODE Fire System	MONITOR
PCU Faults	MONITOR	Building Pressures	MONITOR
PCU Filter Clog Percentages	MONITOR	Pans Button(s)	MONITOR & CONTROL
Flow Condition	MONITOR	Lights Button(s)	MONITOR & CONTROL
CODE Fire System	MONITOR	Wash Button	MONITOR & CONTROL
Building Pressures	MONITOR		
Prep Time Button	MONITOR & CONTROL		
Pans Button	MONITOR & CONTROL		
Lights Button	MONITOR & CONTROL		
Wash Button	MONITOR & CONTROL		



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studdyjr

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DUCTWORK #1 PARTS - JOB#6734349 DOUBLE WALL GREASE DUCT

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P2	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P3	DW1235DWLT-2R-S						40.86		1	DOUBLE WALL DUCT - 12" INNER DUCT, 35" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P4 ASSEMBLED W/P5	DW1247DWAJDP-2R-S						82.74		1	DOUBLE WALL ADJUSTABLE DUCT TRANSITION PLATE - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 48.5" / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P5 ASSEMBLED W/P4 D=B	DW2312TPDBEX						8.00		1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE OD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
P6	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P7	DW1247DWLT-2R-S						54.71		1	DOUBLE WALL DUCT - 12" INNER DUCT, 47" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P8	DW1235DWLT-2R-S						40.86		1	DOUBLE WALL DUCT - 12" INNER DUCT, 35" LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P9 ASSEMBLED W/P10	DW1247DWAJDP-2R-S						82.74		1	DOUBLE WALL ADJUSTABLE DUCT TRANSITION PLATE - 12" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 48.5" / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P10 ASSEMBLED W/P9 D=B	DW2312TPDBEX						8.00		1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 12" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE OD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW12DWCLASY-2R-S						6.44		6	DUCT - 12" DUCT - 16" DOUBLE "V" CLAMP - 2R INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							522.28			

DOUBLE WALL FACTORY BUILT DUCTWORK

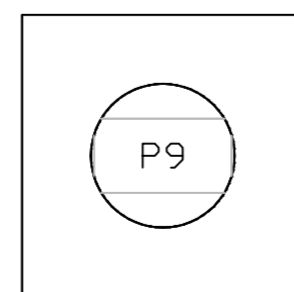
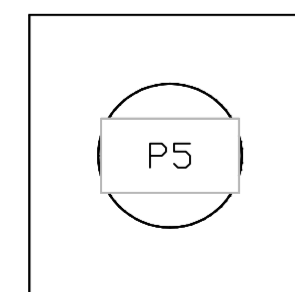
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (FT)
5'	7'
6'	7'
7'	7'
8'	7'
10'	7'
12'	7'
14'	7'
16'	7'
18'	5'
20'	5'
22'	5'
24'	5'
26'	5'
28'	5'
30'	5'
32'	5'
34'	5'
36'	5'

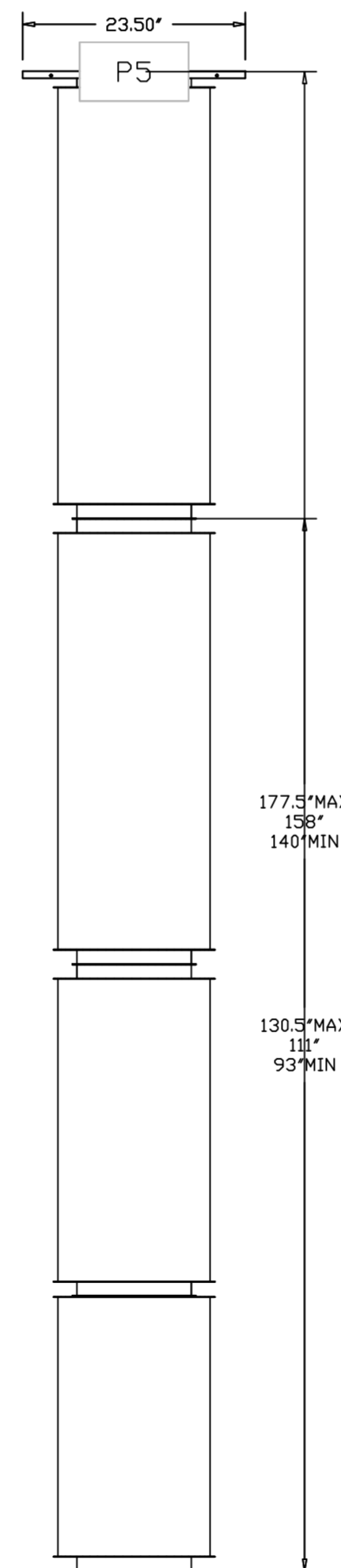
VERTICAL			
TYPE	WALL SUPPDRT (FT)	CURB SUPPDRT (FT)	FLOOR SUPPDRT (FT)
2R & 2R HT (5'-16')	20'	24'	24'
2R (18')	18'	24'	24'
3R & 3Z (5'-24')	10'	24'	24'
3Z (26' -36')	10'	20'	20'

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

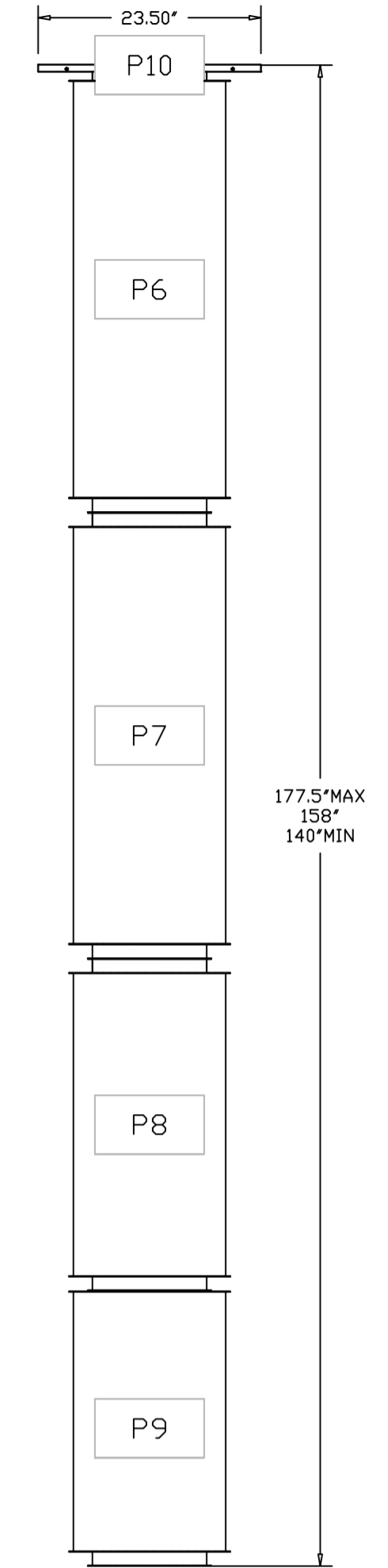
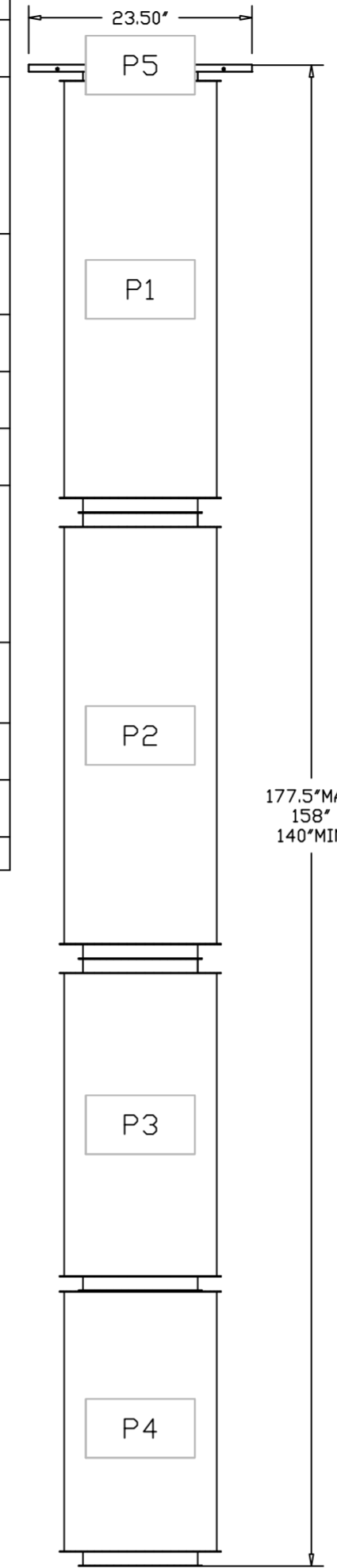
DUCTWORK #1 TOP VIEW GREASE DUCT



DUCTWORK #1 SIDE VIEW GREASE DUCT



DUCTWORK #1 FRONT VIEW GREASE DUCT



REVISIONS

DESCRIPTION	DATE



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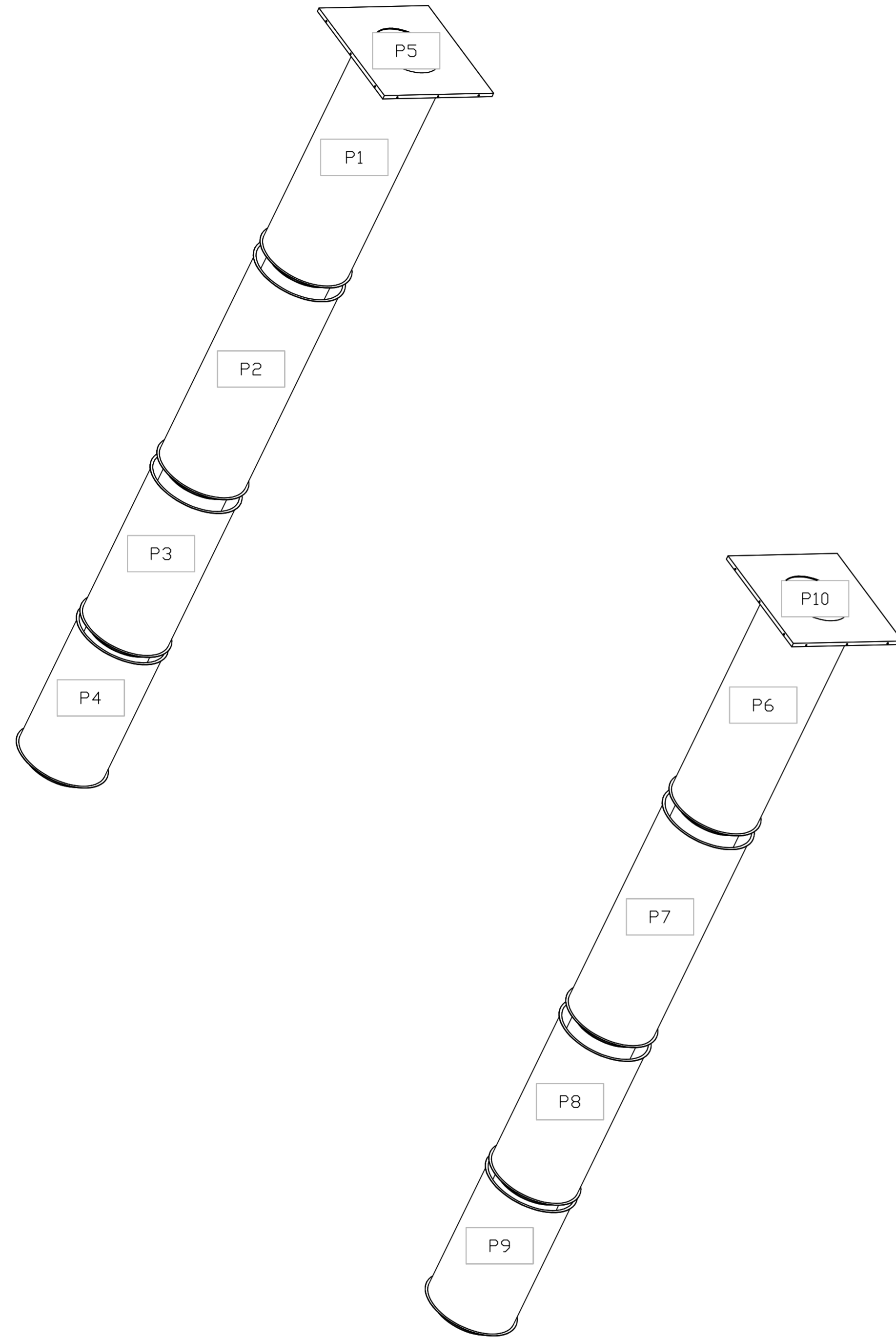
DRAWN BY: sluddy jr

SCALE: 3/4" = 1'-0"

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SHEET NO. 11

DUCTWORK #1 SE VIEW  
GREASE DUCT



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3/4" = 1'-0"

MASTER DRAWING

SHEET NO.  
12