



FOR QUESTIONS, CALL THE  
 Florida National Accounts  
 REGION 60  
 PHONE: (407) 682 - 3100  
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**HOOD INFORMATION - JOB#7511080**

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	RDW
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
3	DISH HOOD	4224 VHB-G-ND-REM1	CAPTIVEAIRE	3' 6"	700 DEG	II	N/A	100	350			4'	10"	350	642	-0.031"	304 SS 100%	ALONE	ALONE

**HOOD INFORMATION**

HOOD NO	TAG	TYPE	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
			QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	ELECTRICAL MODEL #		
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
3	DISH HOOD						0							NO	164 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.

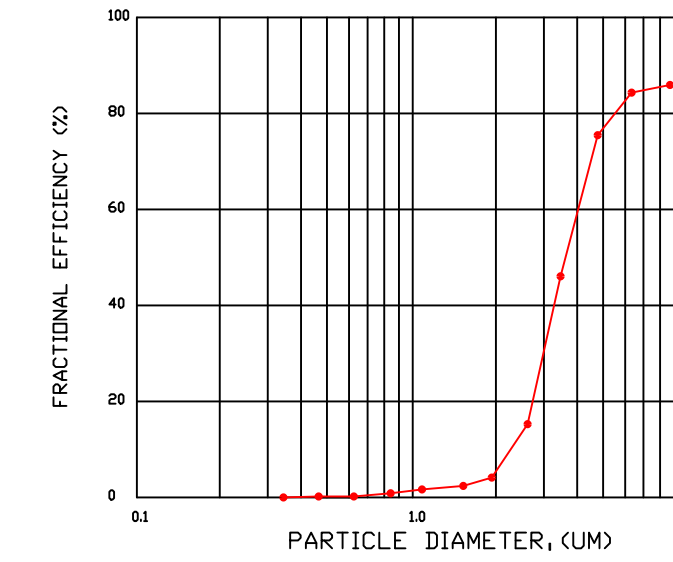
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

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

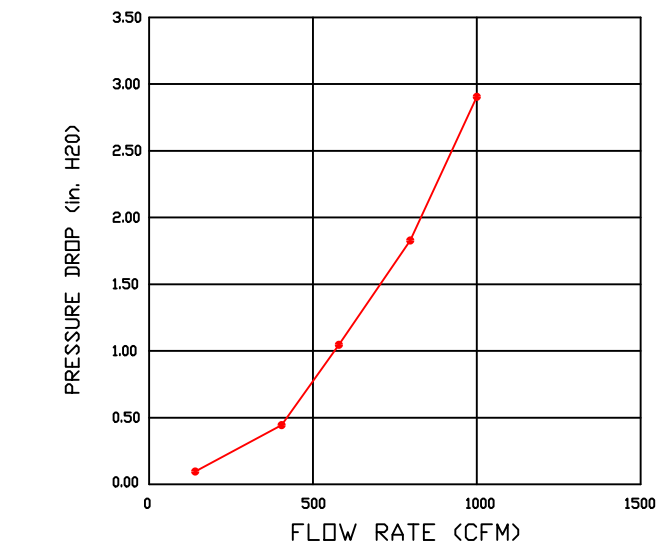
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

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.

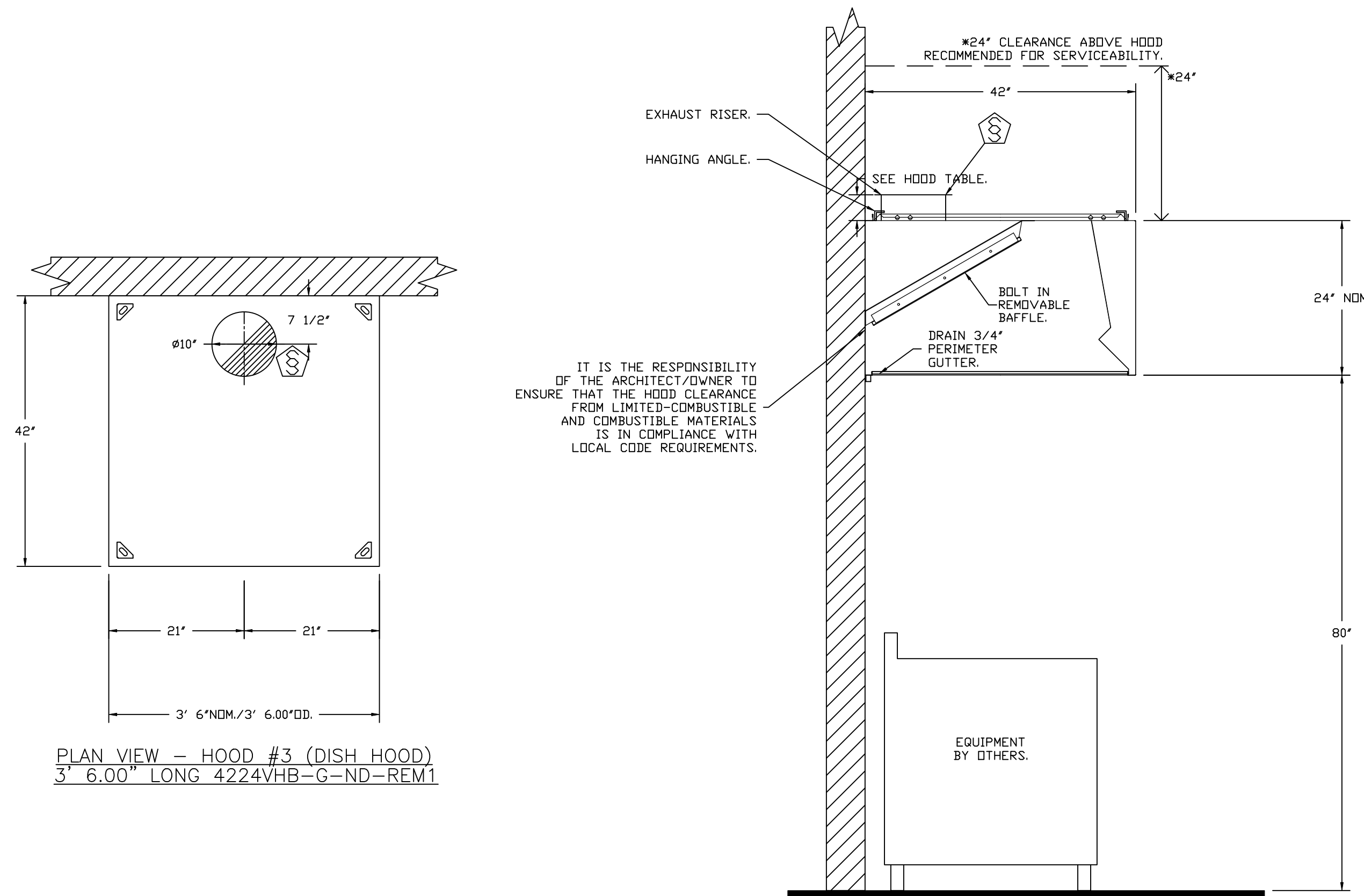
EFFICIENCY VS. PARTICLE DIAMETER



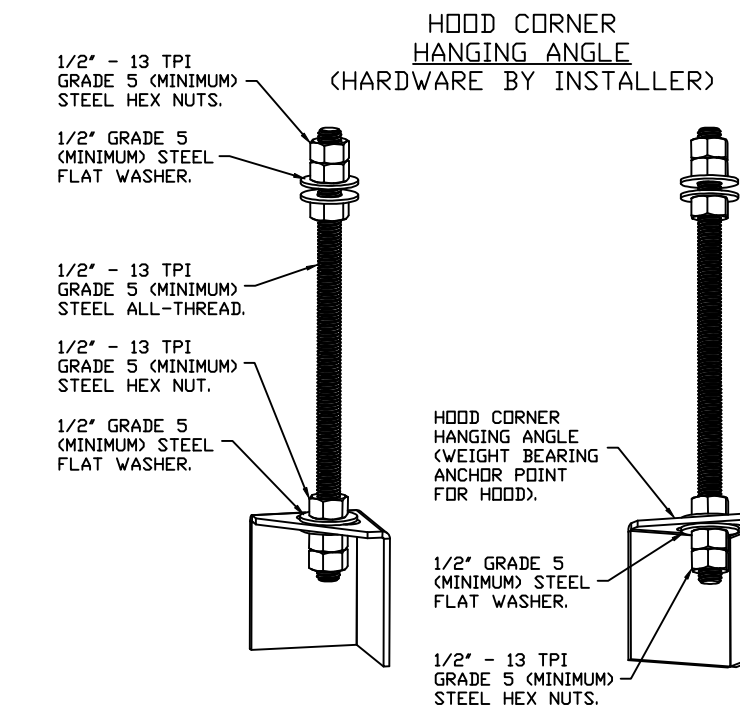
PRESSURE DROP VS. FLOW RATE



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



**SECTION VIEW - MODEL 4224VHB-G-ND-REM1  
 HOOD - #3 (DISH HOOD)**



**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.

**REVISIONS**

DESCRIPTION	DATE

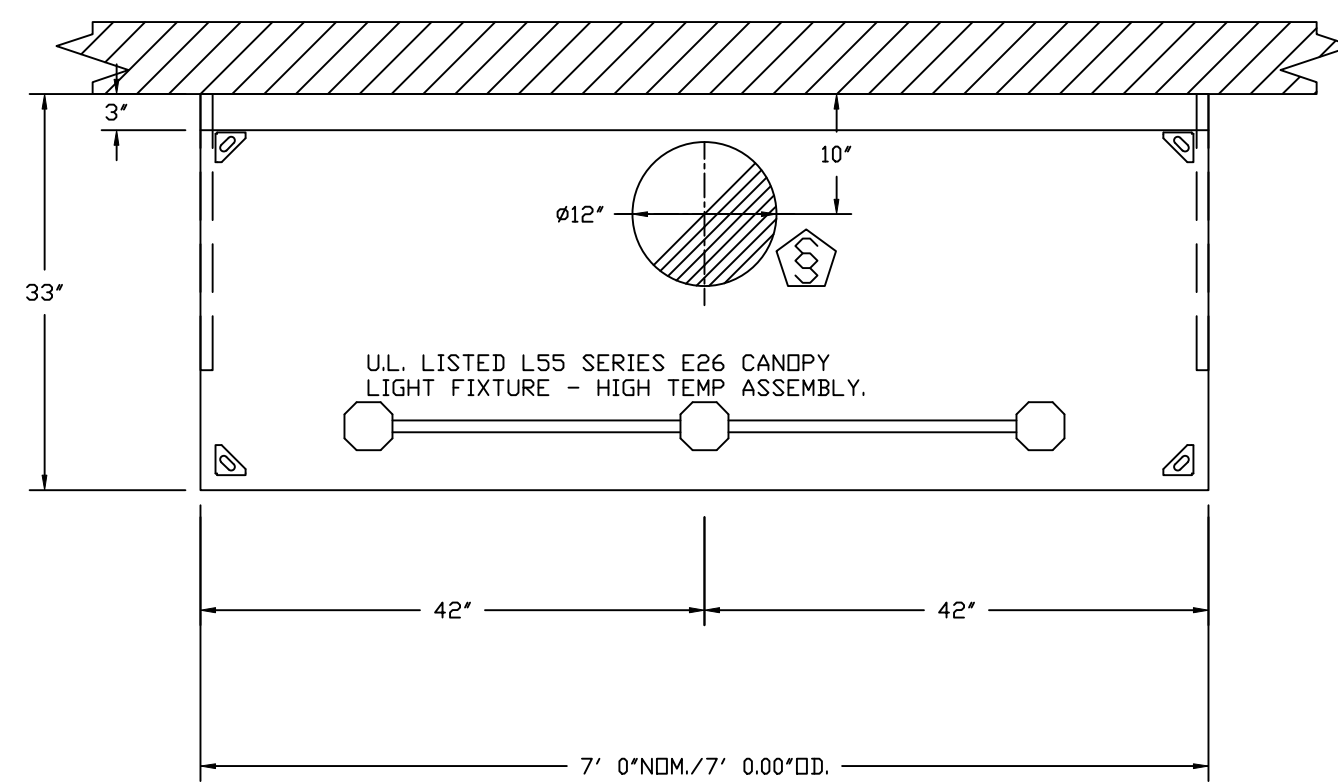
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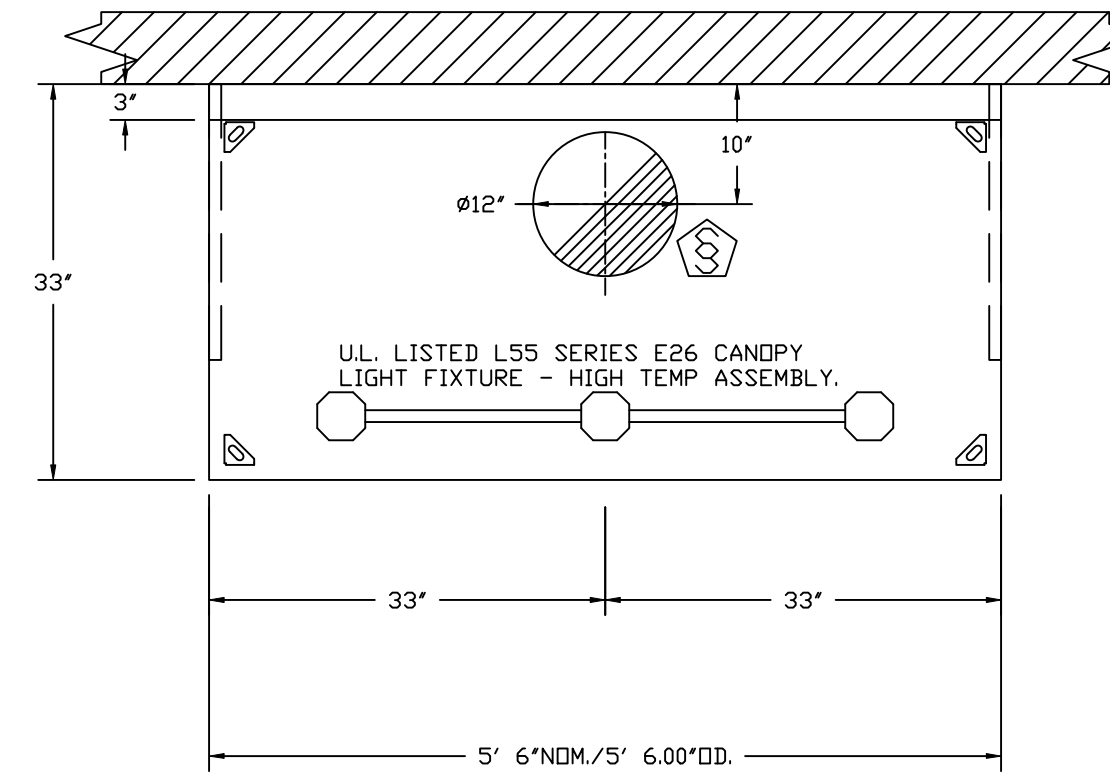
CULVERS DUNDEE MI  
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DATE: 10/16/2025  
 DWG.#: 7511080  
 DRAWN BY: studdy jr  
 SCALE: 3/4" = 1'-0"  
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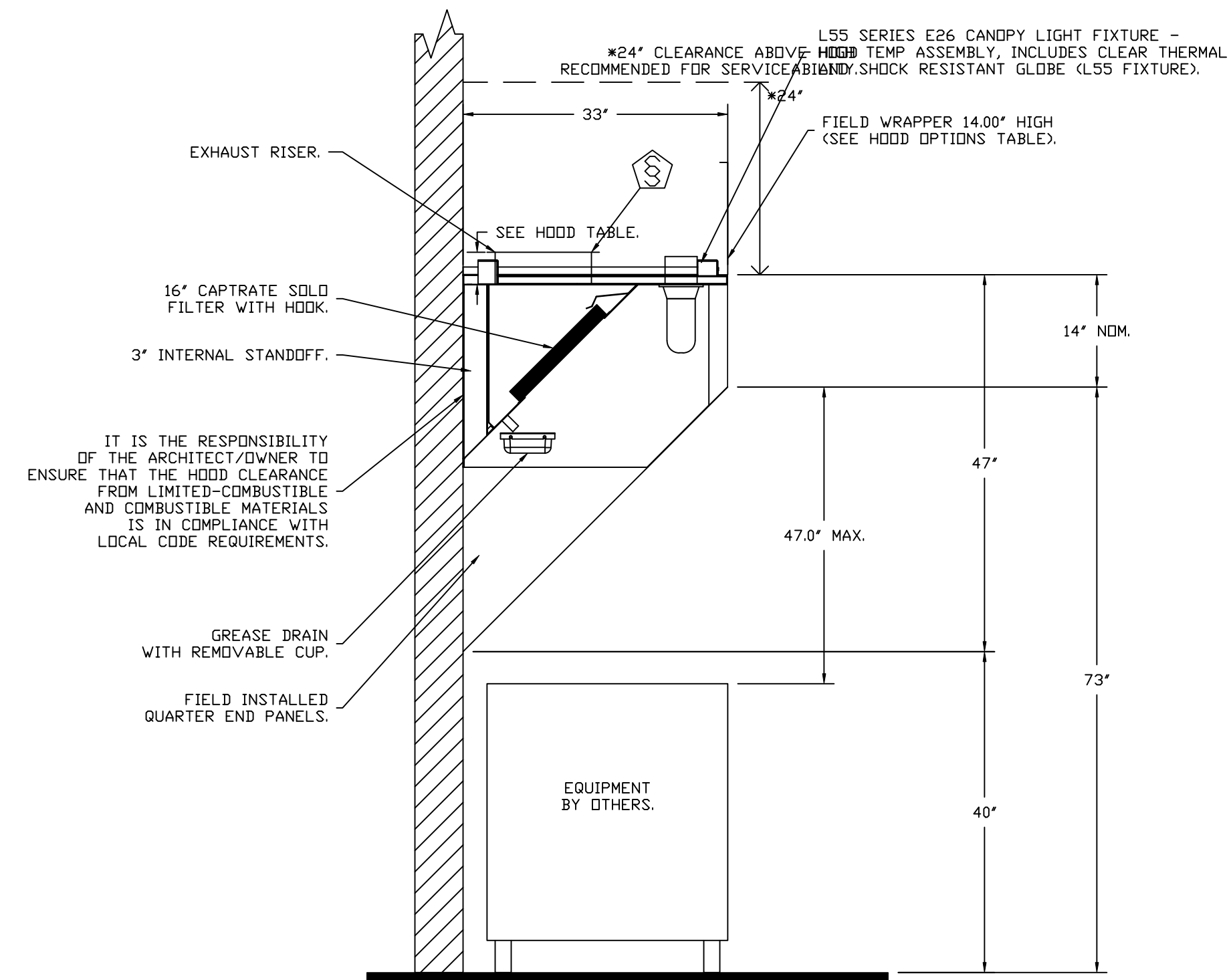
**SHEET NO.**  
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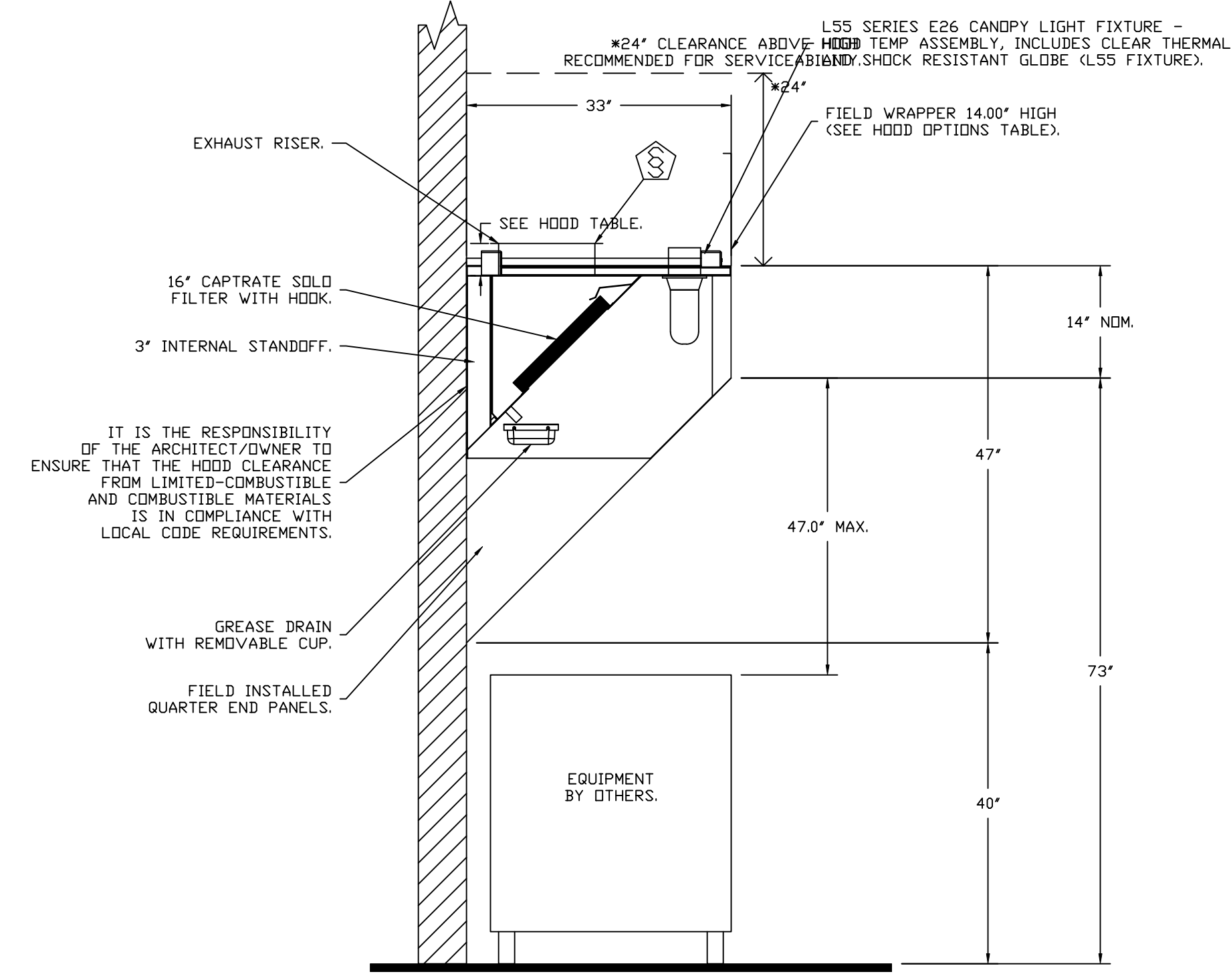
PLAN VIEW - HOOD #1 (FRYER HOOD)  
7' 0.00" LONG 3347BD-2



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)

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**DWG.#:** 7511080  
**DRAWN BY:** sluddy jr  
**SCALE:** 3/4" = 1'-0"  
**MASTER DRAWING**

**SHEET NO.**  
 2

**EXHAUST FAN INFORMATION – JOB#7511080**

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	PRV-1 RESTROOM	1	DR12HFA	CAPTIVEAIRE	375	0.500	1369	TEAD-ECM	0.250	0.1110	1	115	2.9		85	7
2	PRV-2	1	DU85HFA	CAPTIVEAIRE	1500	1.412	1406	TEAD-ECM	1.000	0.5330	1	115	11.6	475 FPM	129	13.7
3	PRV-3	1	DU85HFA	CAPTIVEAIRE	1500	1.250	1348	TEAD-ECM	1.000	0.4700	1	115	11.6	475 FPM	129	12.4
4	PRV-4 DISH	1	DUI2HFA	CAPTIVEAIRE	350	0.350	1394	TEAD-ECM	0.250	0.0700	1	115	2.9	248 FPM	87	7.2
5	EF-1	1	CFA 100CA	CAPTIVEAIRE	75	0.125	493	GENERALPURPOSE	0.116	0.0510	1	115	1.1		26	N/A

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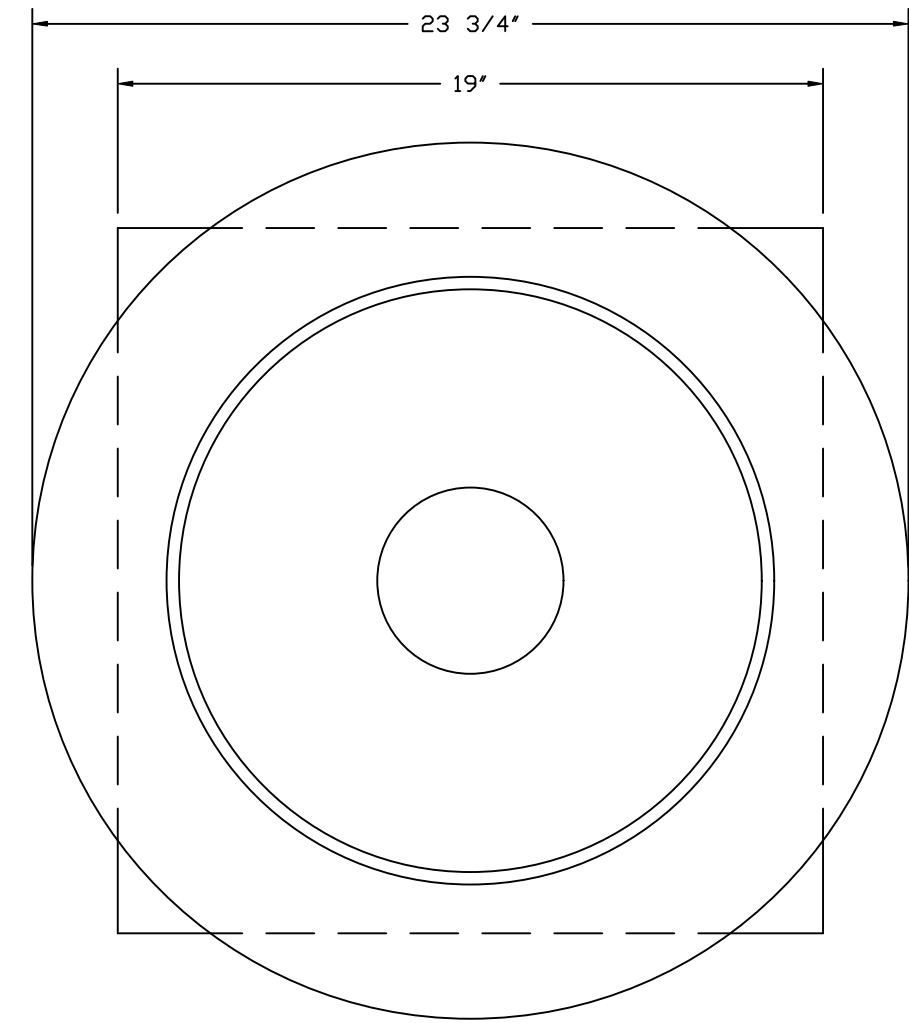
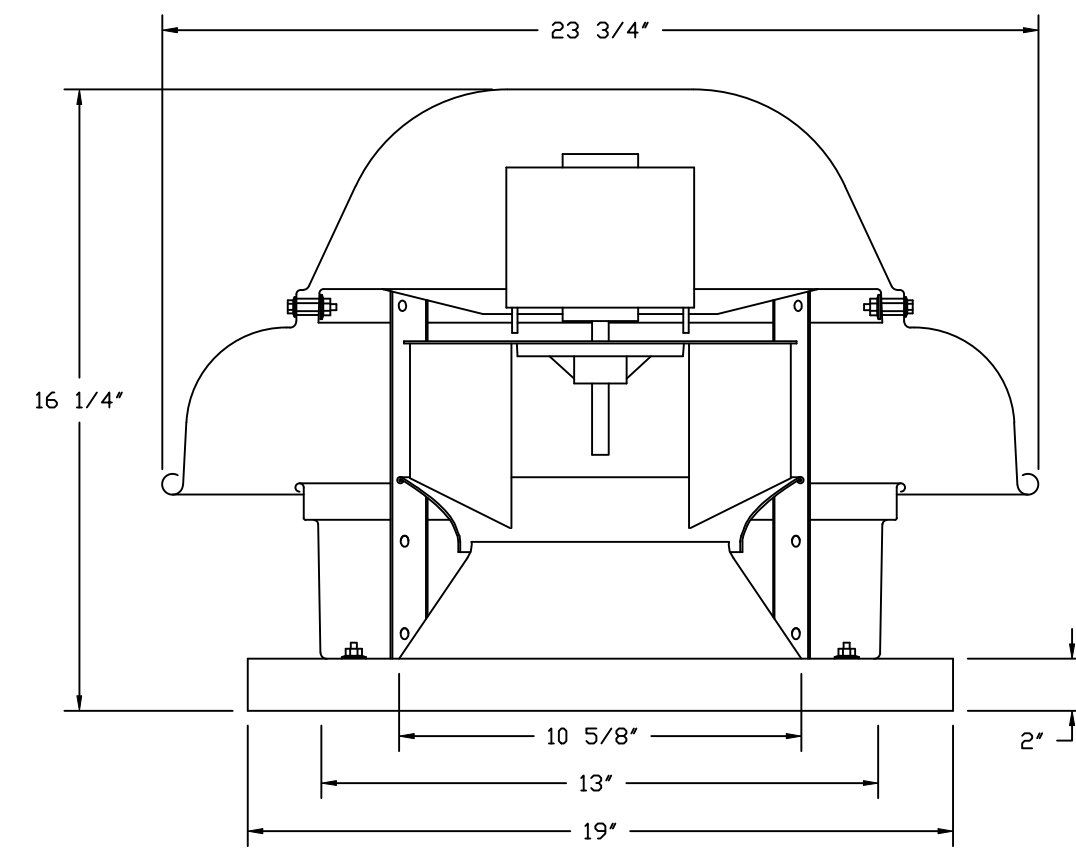
**SCALE:**  
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**MASTER DRAWING**

**SHEET NO.**  
3



FAN #1\_DR12HFA - EXHAUST FAN (PRV-1 RESTROOM)



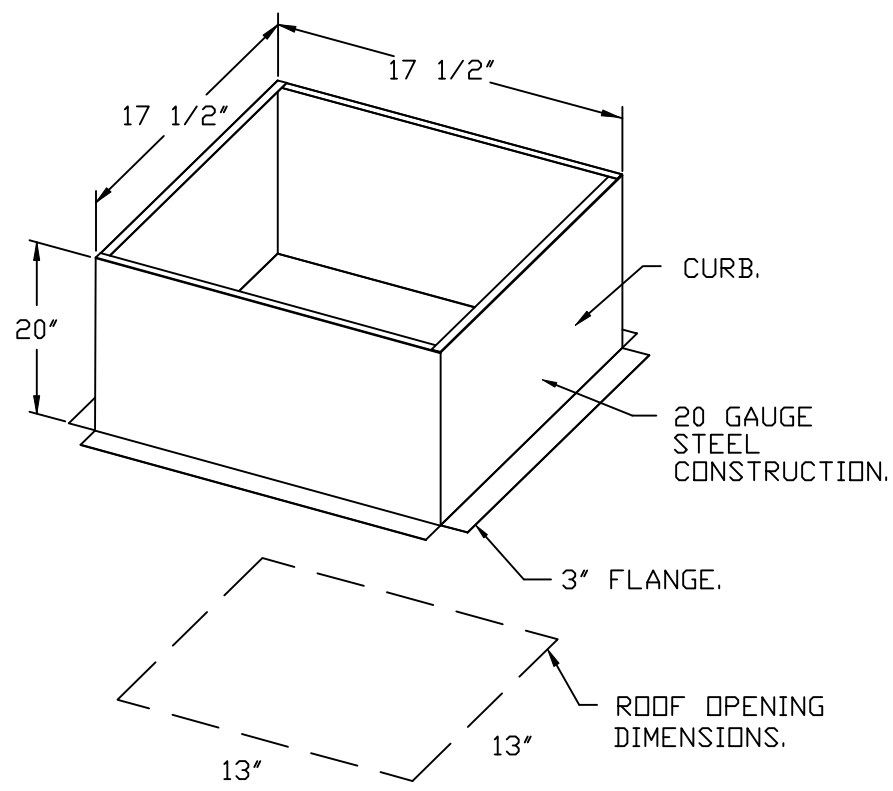
TOP VIEW

**FEATURES:**

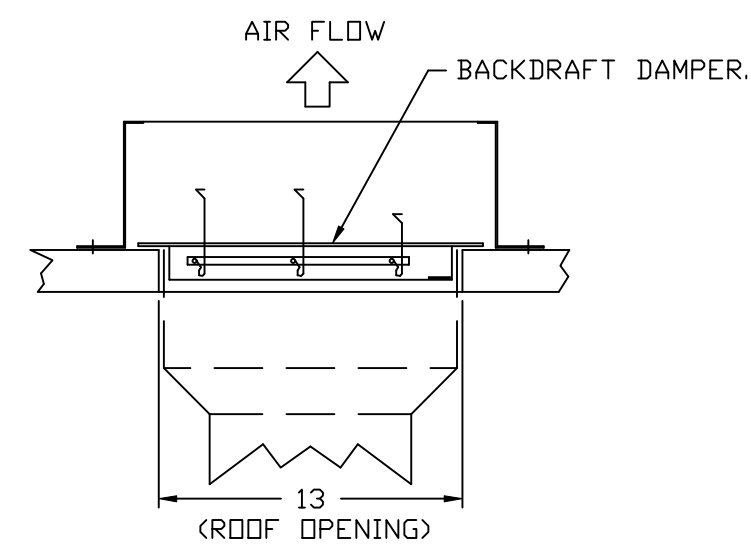
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).

**OPTIONS:**

- 1 12-BDD DAMPER.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL.
- RTC - (TELCO MOTOR), CCW ROTATION.
- FULL CRATING FOR EXHAUST FANS.
- 2 YEAR PARTS WARRANTY.



**BACKDRAFT DAMPER INSTALLATION**



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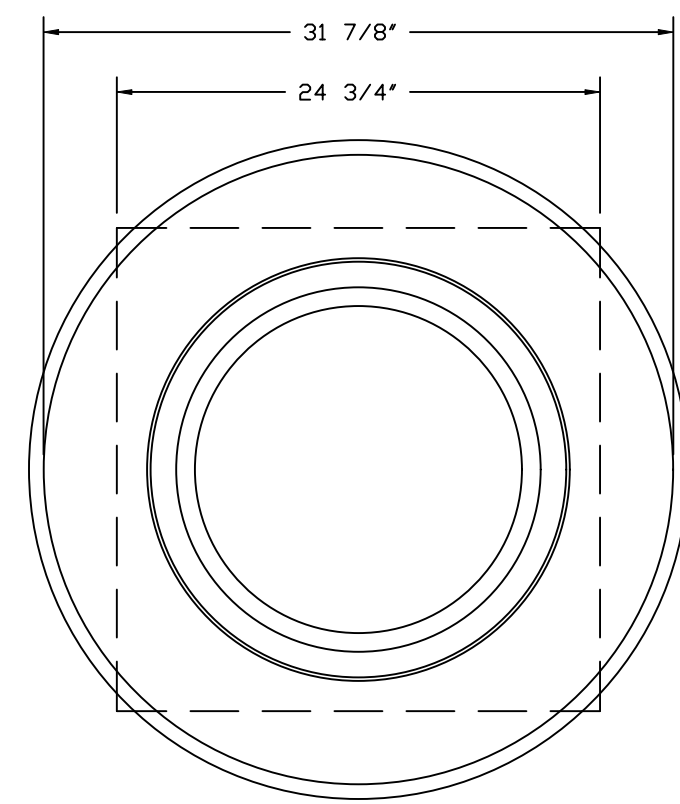
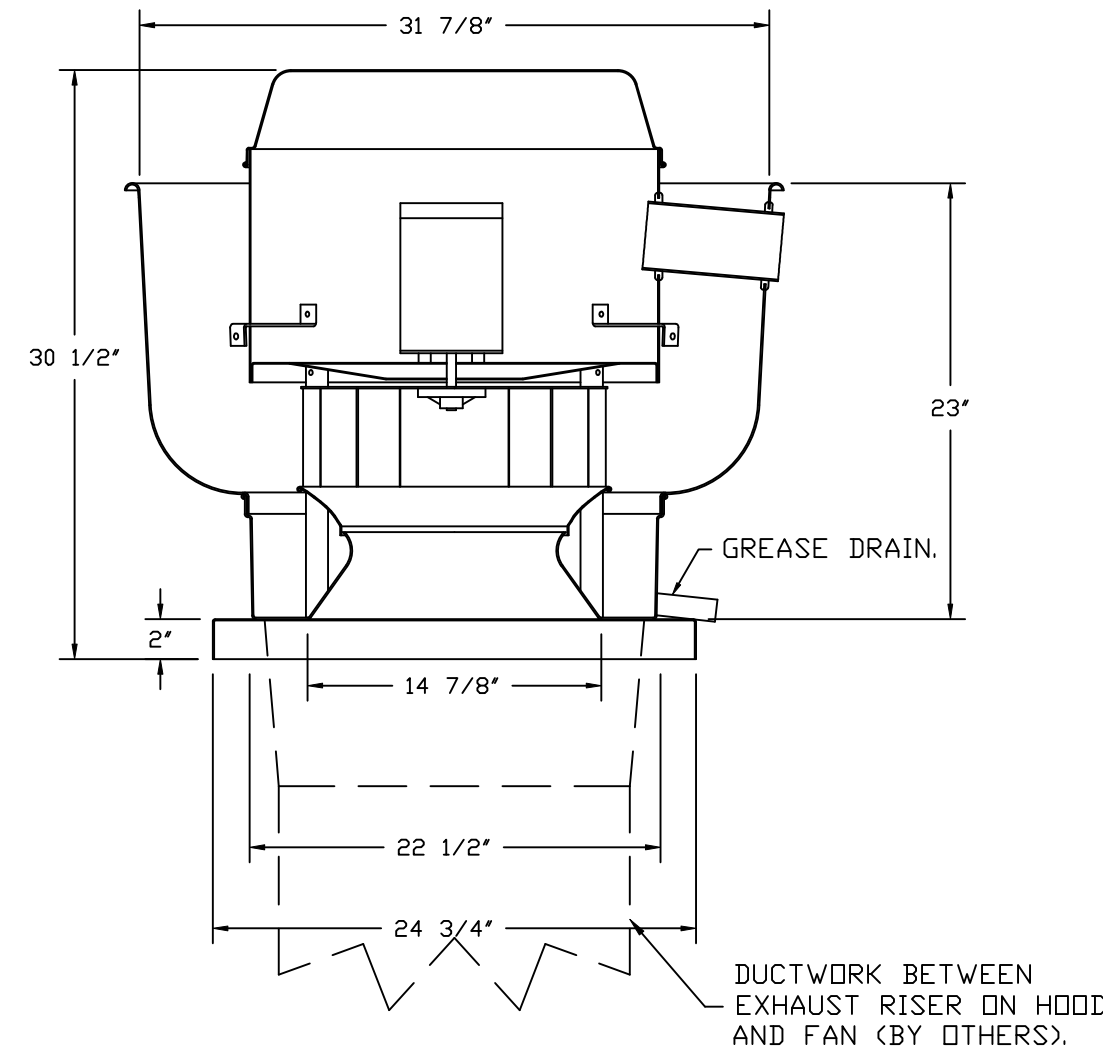
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<b>DRAWN BY:</b> sluddy jr
<b>SCALE:</b> 3/4" = 1'-0"
<b>MASTER DRAWING</b>

**SHEET NO.**  
5

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 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.

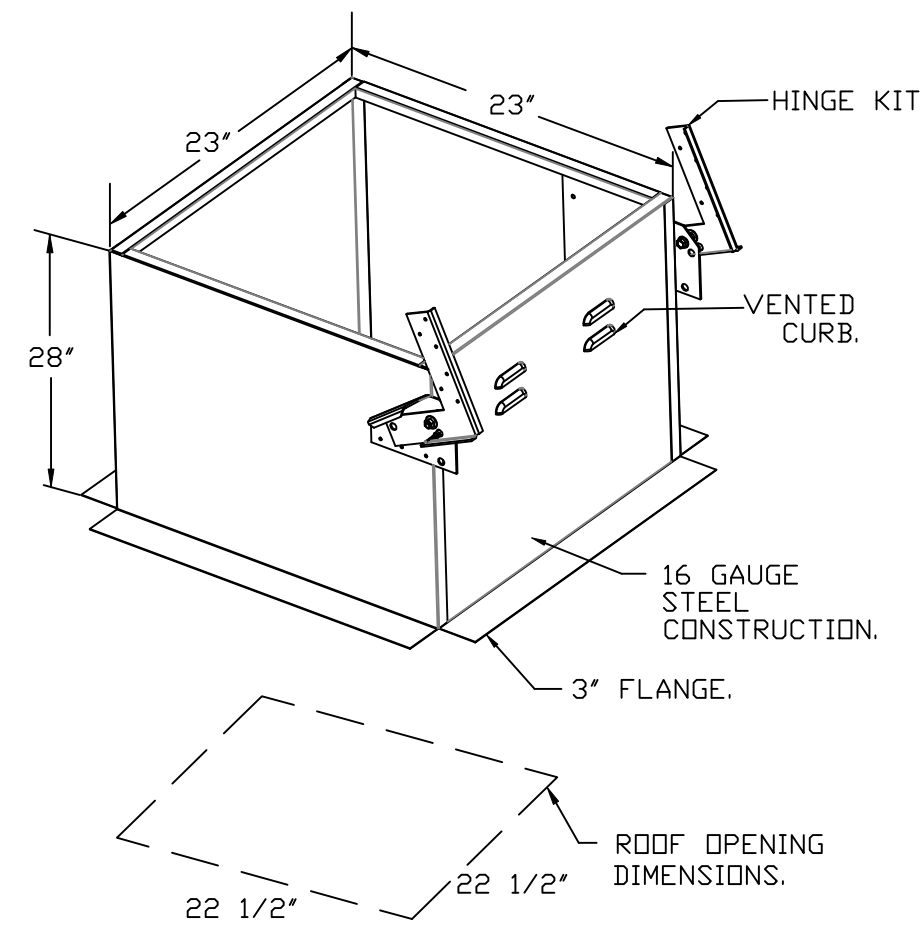
**NORMAL TEMPERATURE TEST**  
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

**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.

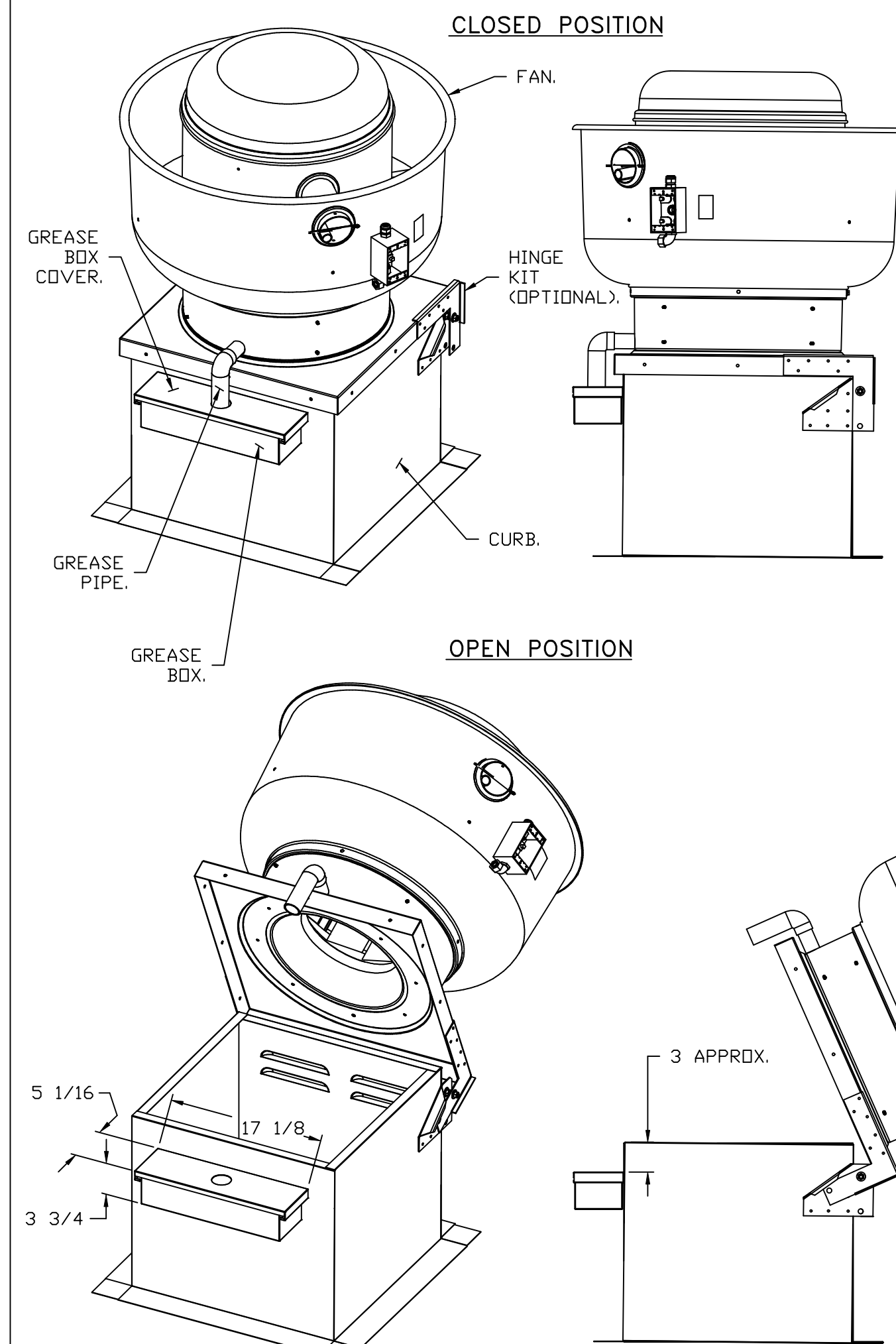
**OPTIONS**

- GREASE BOX.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL
- RTC- (THERM MOTOR), CCM ROTATION
- FAN BASE CERAMIC SEAL - DU/DR05HFA
- SHIP LOOSE - FOR GREASE DUCTS.
- FULL CRATING FOR EXHAUST FANS.
- 2 YEAR PARTS WARRANTY.

DUCTWORK BETWEEN EXHAUST RISER ON HOOD AND FAN (BY OTHERS).



**GREASE BOX INSTALLATION**



\*NOTE: UL 705 INSTALL.

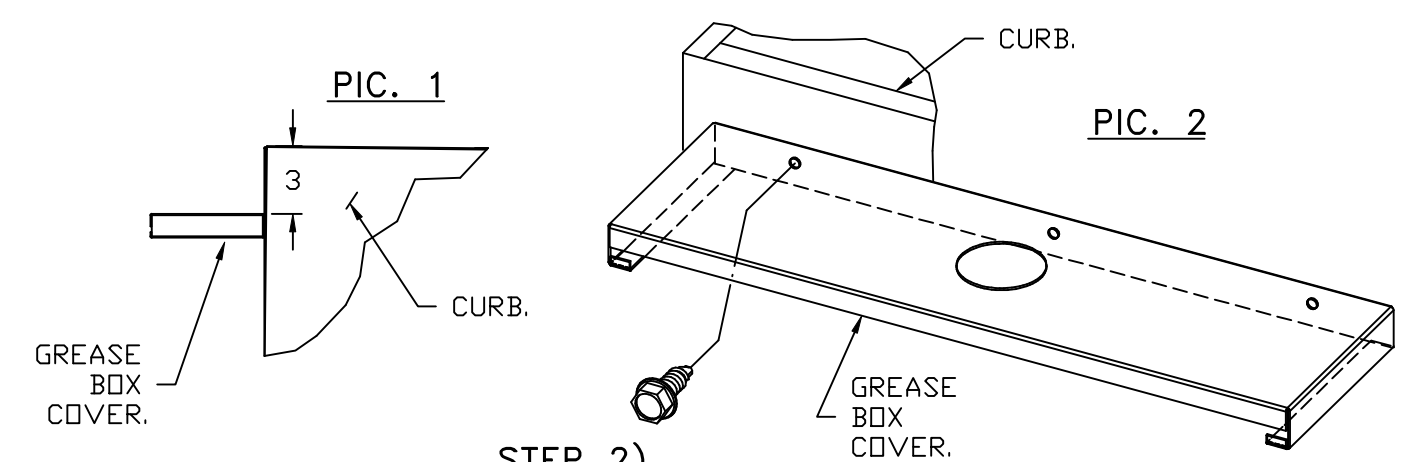
**PARTS INCLUDED**

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

**GREASE BOX FIELD INSTALLATION**

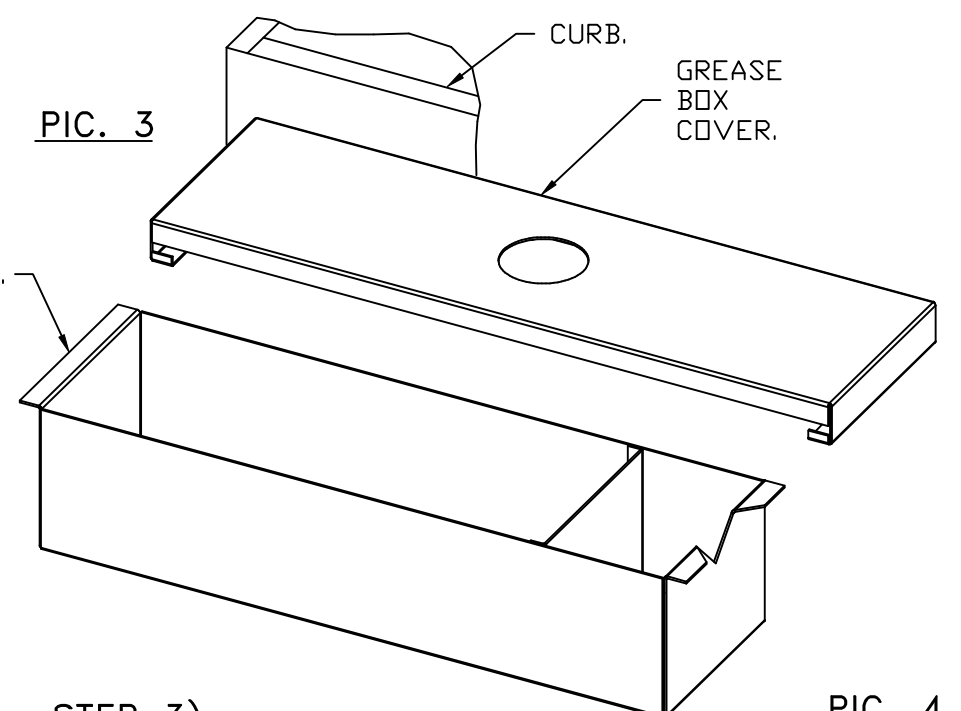
**STEP 1)**

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.

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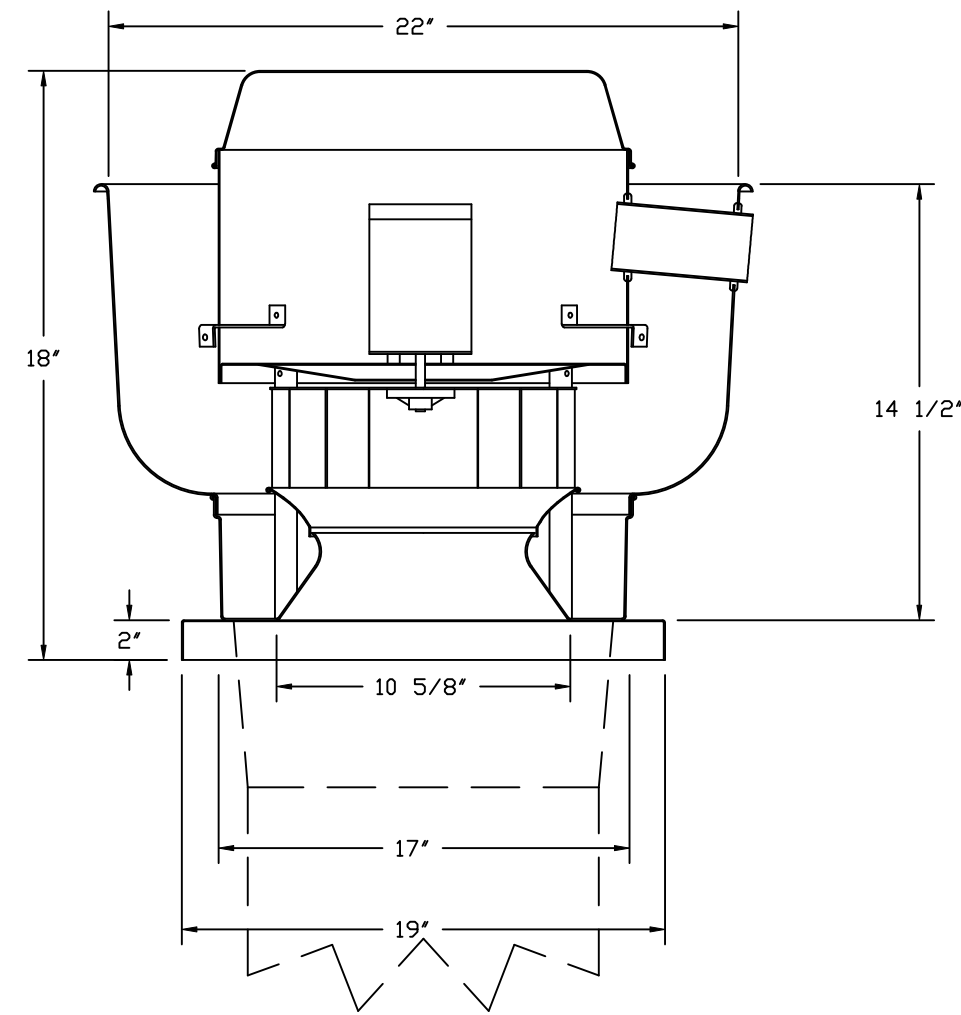
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MASTER DRAWING

**SHEET NO.**  
6

FAN #4 DUI2HFA - EXHAUST FAN (PRV-4 DISH)



TOP VIEW

**FEATURES:**

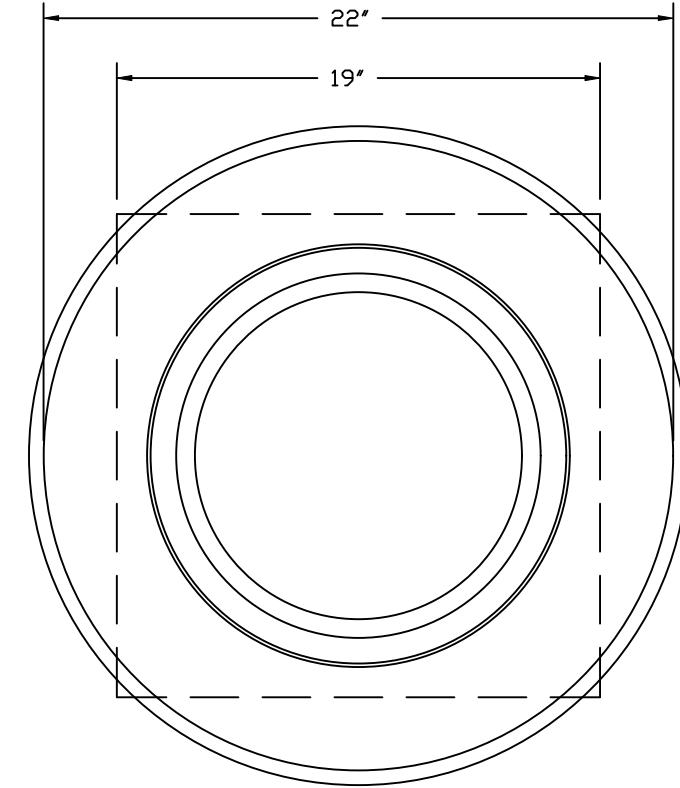
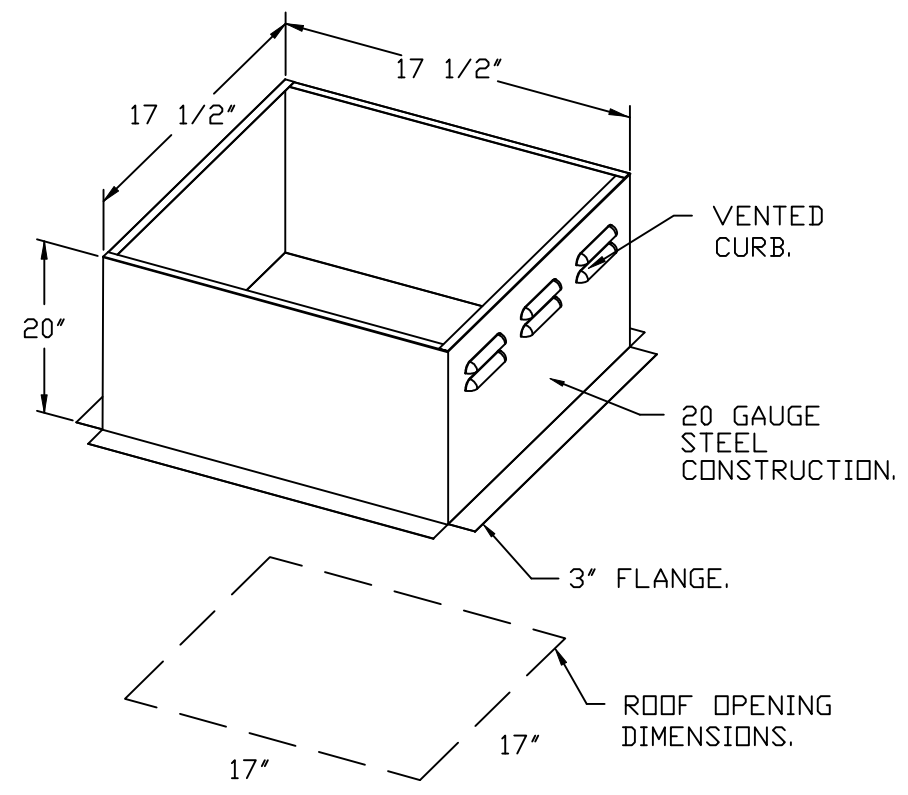
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- NEMA 3R SAFETY DISCONNECT SWITCH.

**NORMAL TEMPERATURE TEST**

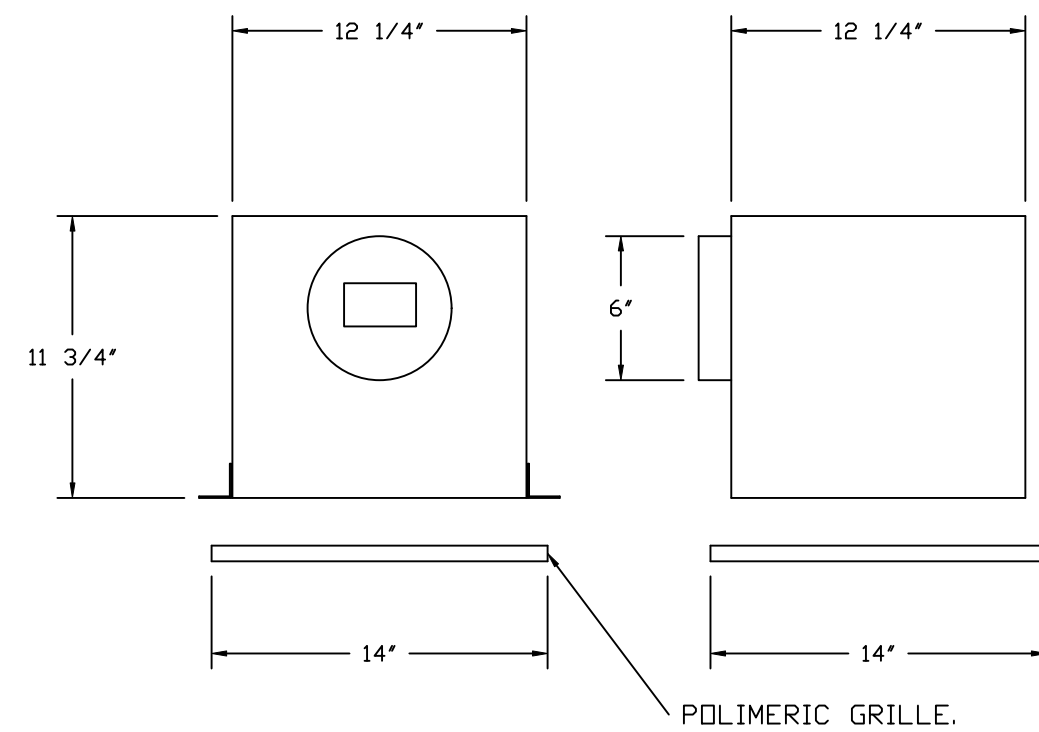
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

**OPTIONS**

- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL
- RTC - (TELED MOTOR), CCW ROTATION.
- FULL CRATING FOR EXHAUST FANS.
- 2 YEAR PARTS WARRANTY.



FAN #5 CFA 100CA - EXHAUST FAN (CF-1)



**FEATURES:**

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

**OPTIONS**

- MGI - METAL GRILLE KIT.
- FAN CONTROL - 3 AMP WHITE SPEED CONTROL FOR CFA CEILING FAN.
- 2 YEAR PARTS WARRANTY.

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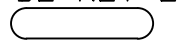
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**DRAWN BY:** studdy jr  
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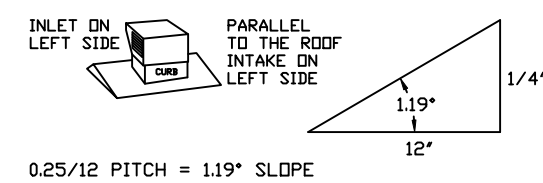
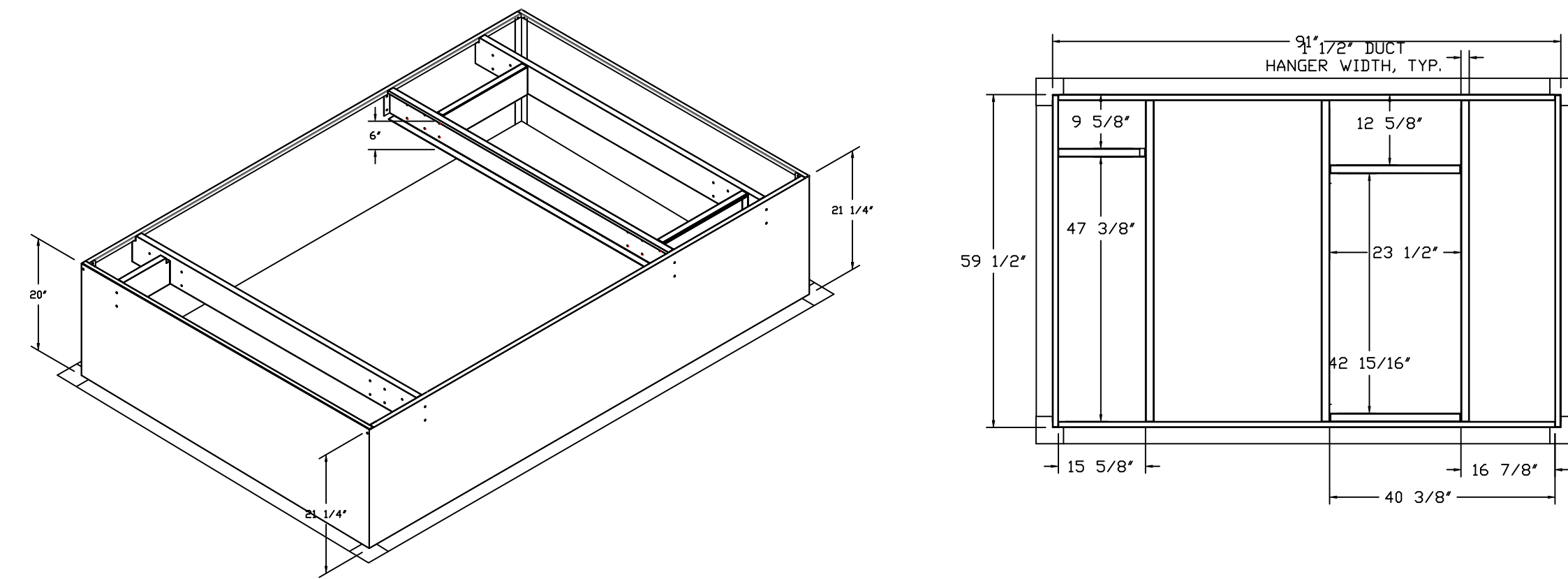
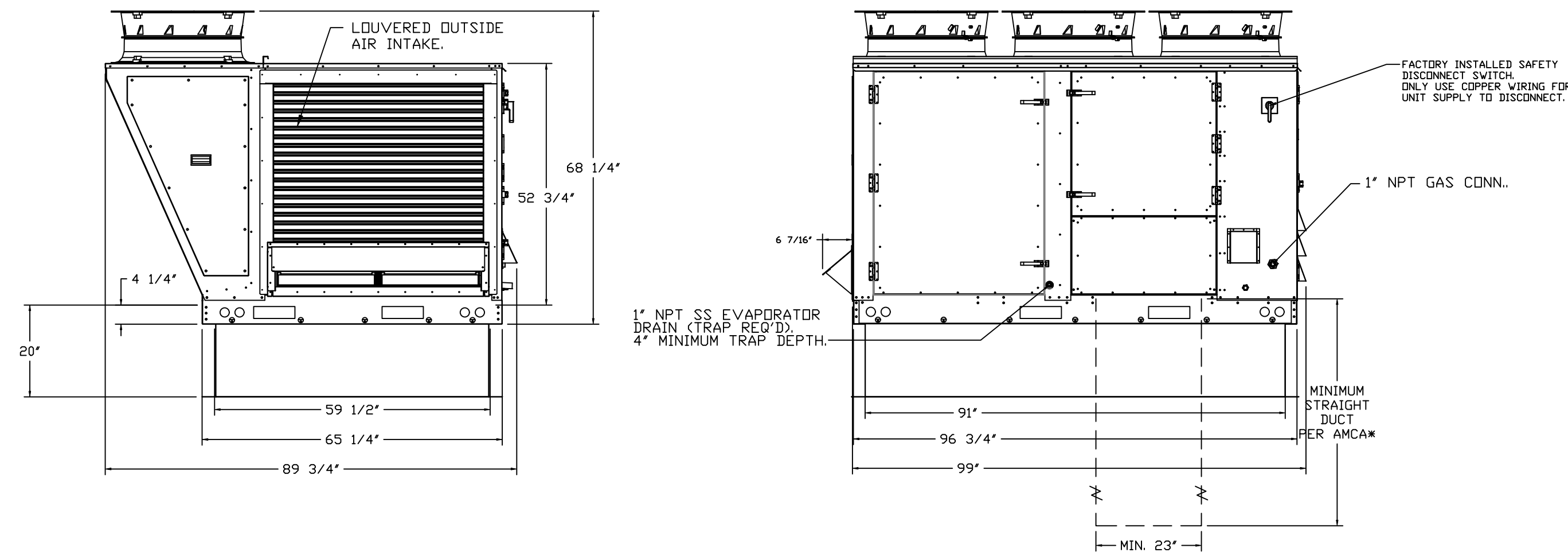
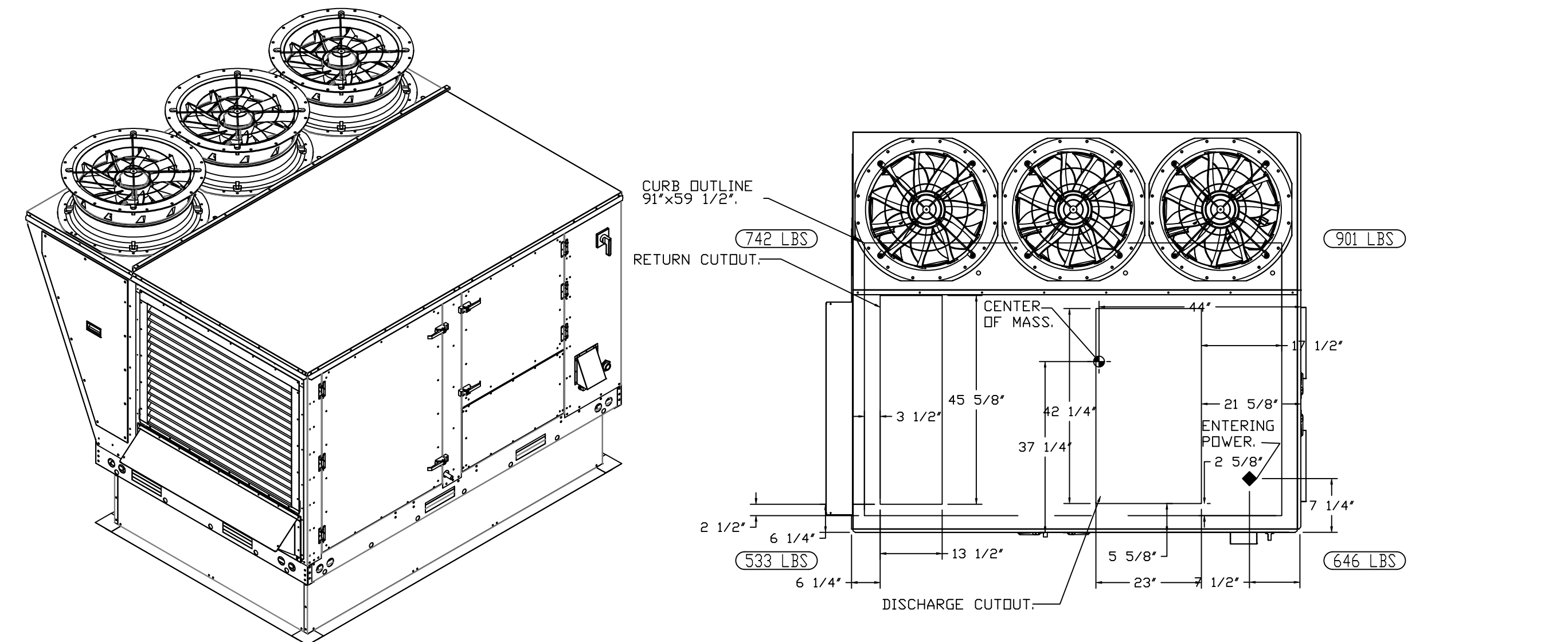
FAN #6 CAS-HVAC3-I.400-24MF-20T - HEATER (RTU-1 DINING)

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.
- EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

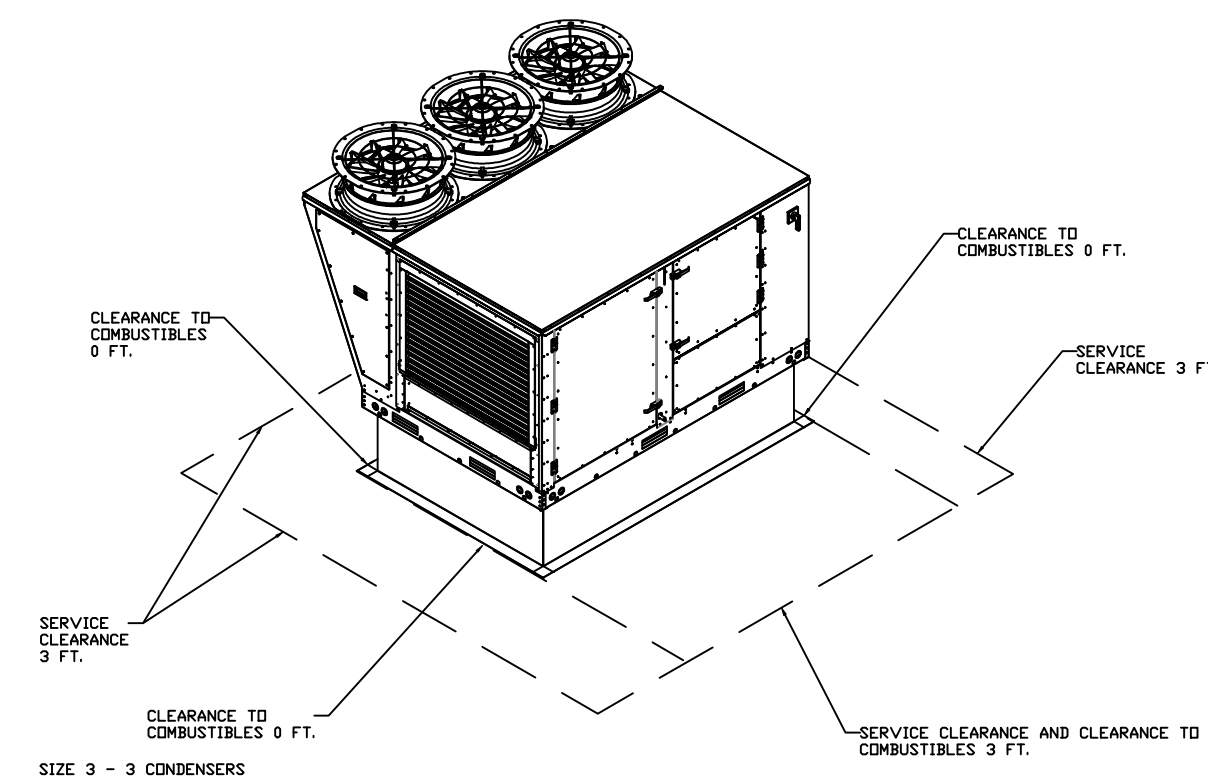
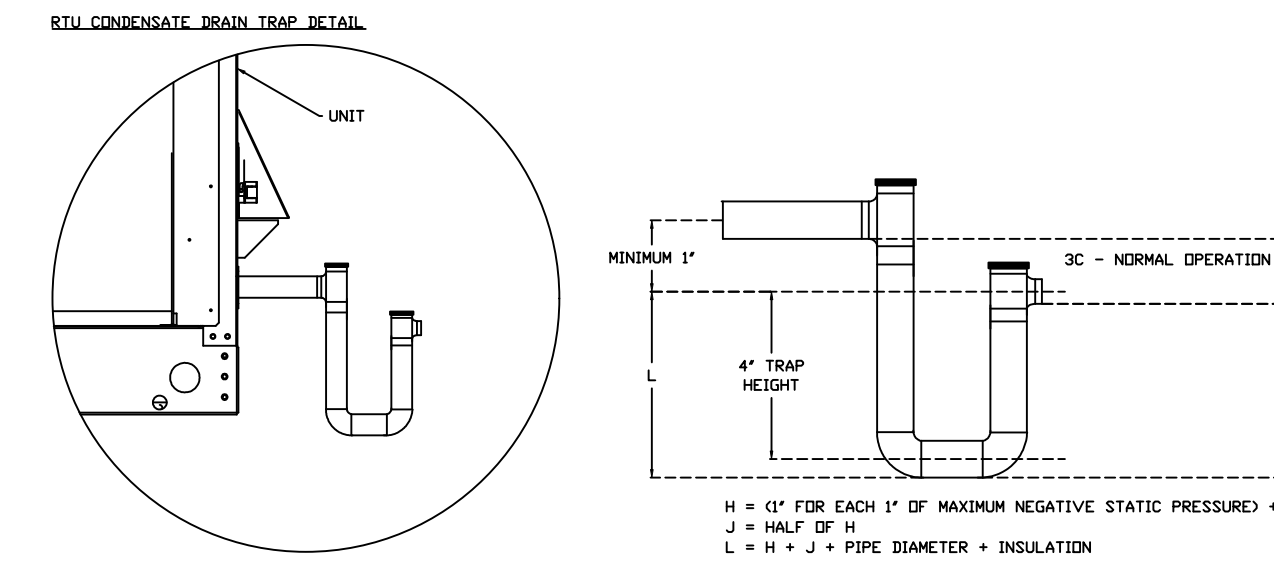
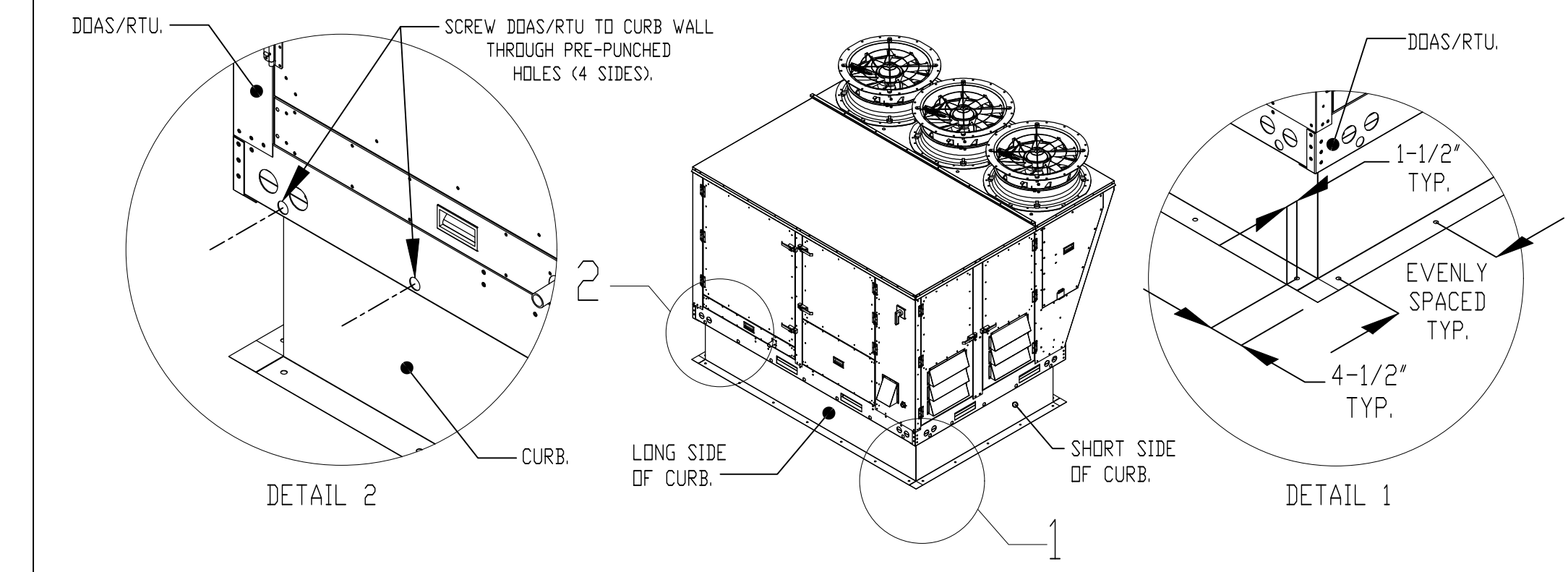
\*NOTE: INTEGRAL CO2 MONITORING AND CONTROL CAPABILITIES FOR ALL SPACE MOUNTED THERMOSTATS.

\*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 SUPPLY STRAIGHT DUCT SIZE IS 23" x 39".  
SUGGESTED RETURN STRAIGHT DUCT SIZE IS 45-5/8" x 13-1/2".



TYPICAL DOAS/RTU ROOF MOUNTING INSTALLATION INSTRUCTIONS

- 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.
- 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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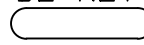
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DRAWN BY: studdy jr  
SCALE: 1/2" = 1'-0"  
MASTER DRAWING

SHEET NO. 8

FAN #7 CAS-HVAC3-I.400-24MF-20T - HEATER (RTU-2 KITCHEN)

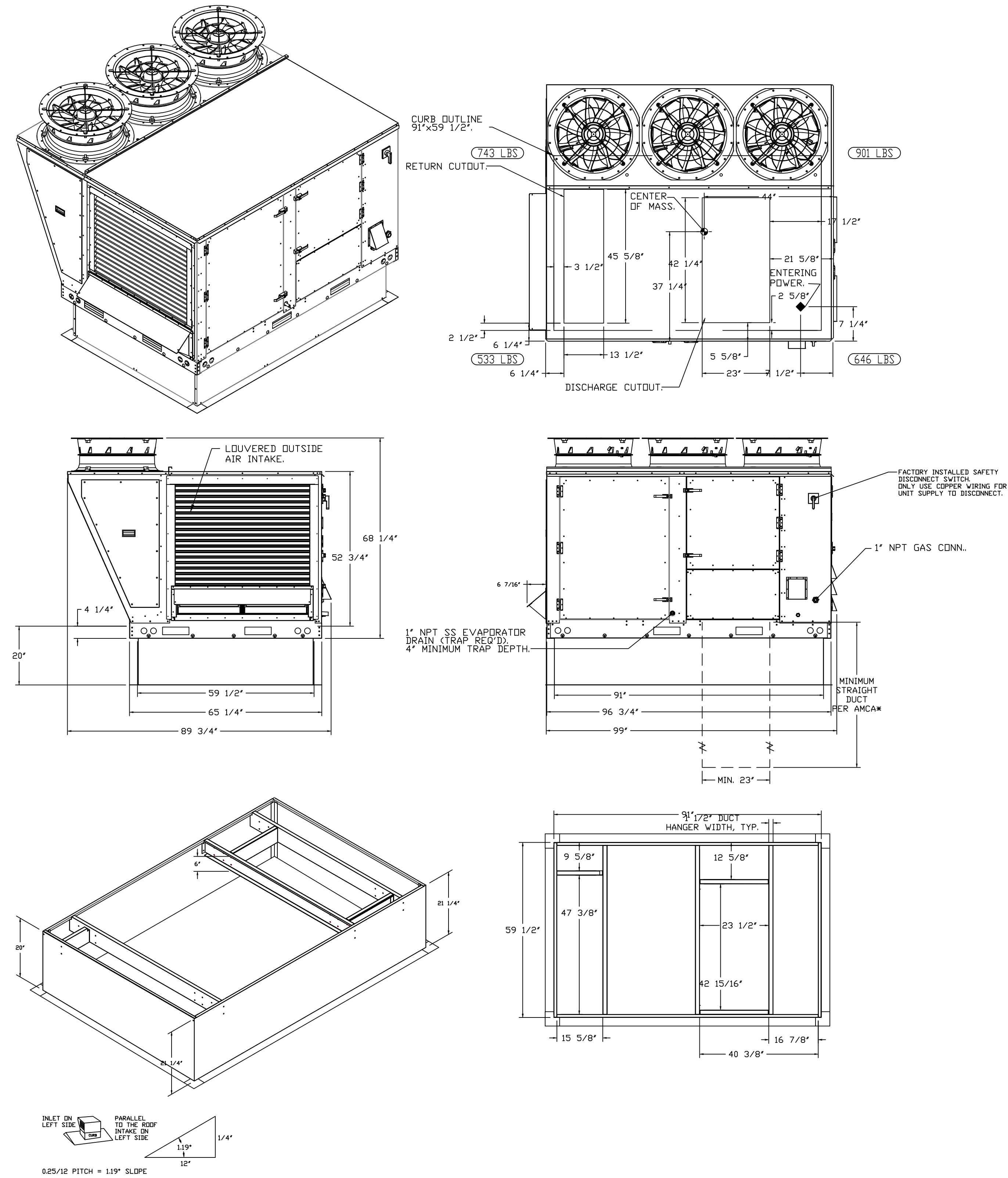
NOTES:

- 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.
- EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

\*NOTE: INTEGRAL CO2 MONITORING AND CONTROL CAPABILITIES FOR ALL SPACE MOUNTED THERMOSTATS.

**\*NOTE: THIS UNIT IS INTENDED TO SERVE IN PLACE OF THE KITCHEN HVAC ROOF TOP UNIT (RTU) IN ADDITION TO PROVIDING APPROPRIATE MAKE-UP AIR FOR THE KITCHEN HOOD(S). RTU AND ASSOCIATED DUCTWORK SHALL BE REMOVED FROM SCOPE UNLESS REQUIRED FOR INTERNAL LOAD ESTIMATES. FINAL DESIGN SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.**

\*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 SUPPLY STRAIGHT DUCT SIZE IS 23" x 39".  
 SUGGESTED RETURN STRAIGHT DUCT SIZE IS 45-5/8" x 13-1/2".



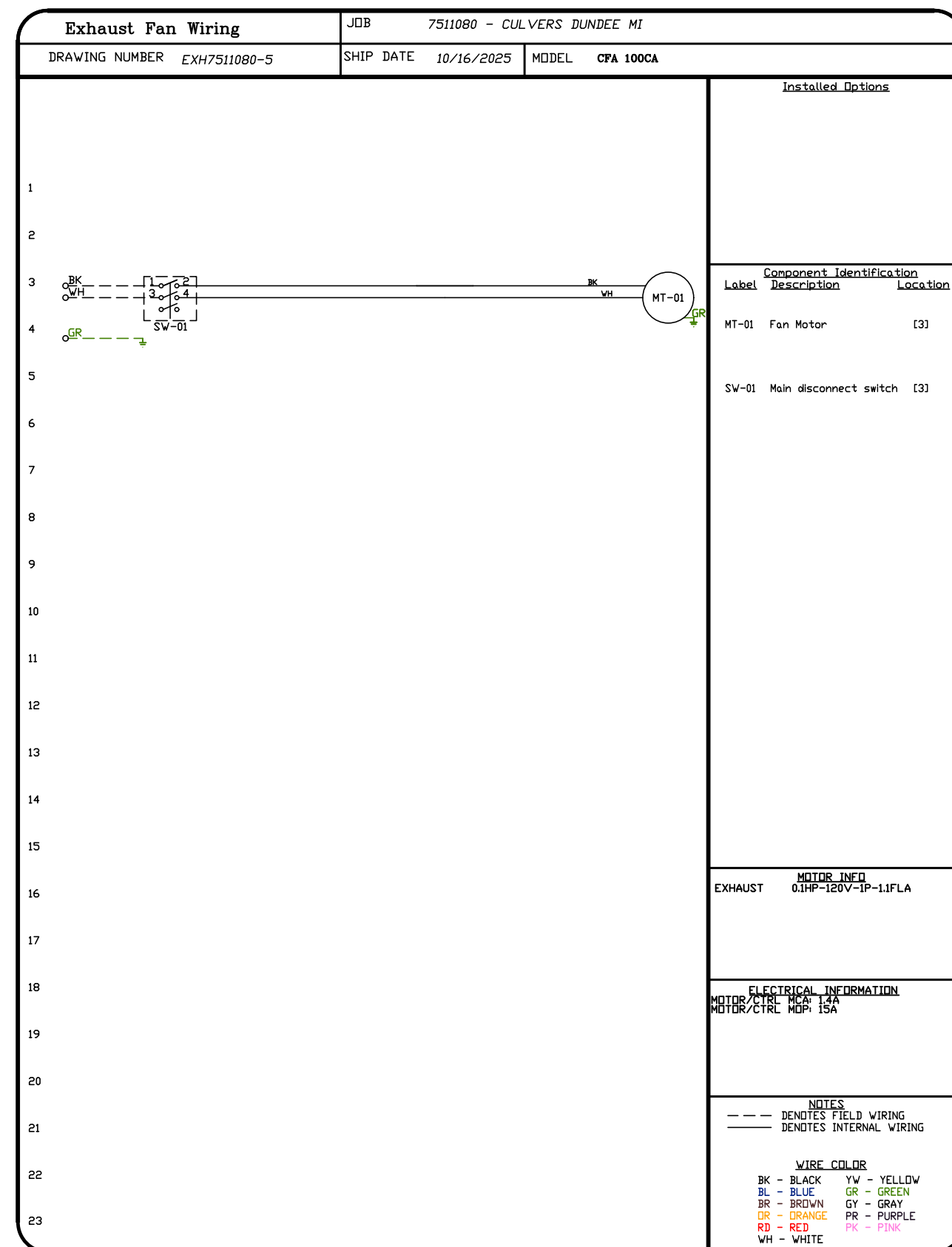
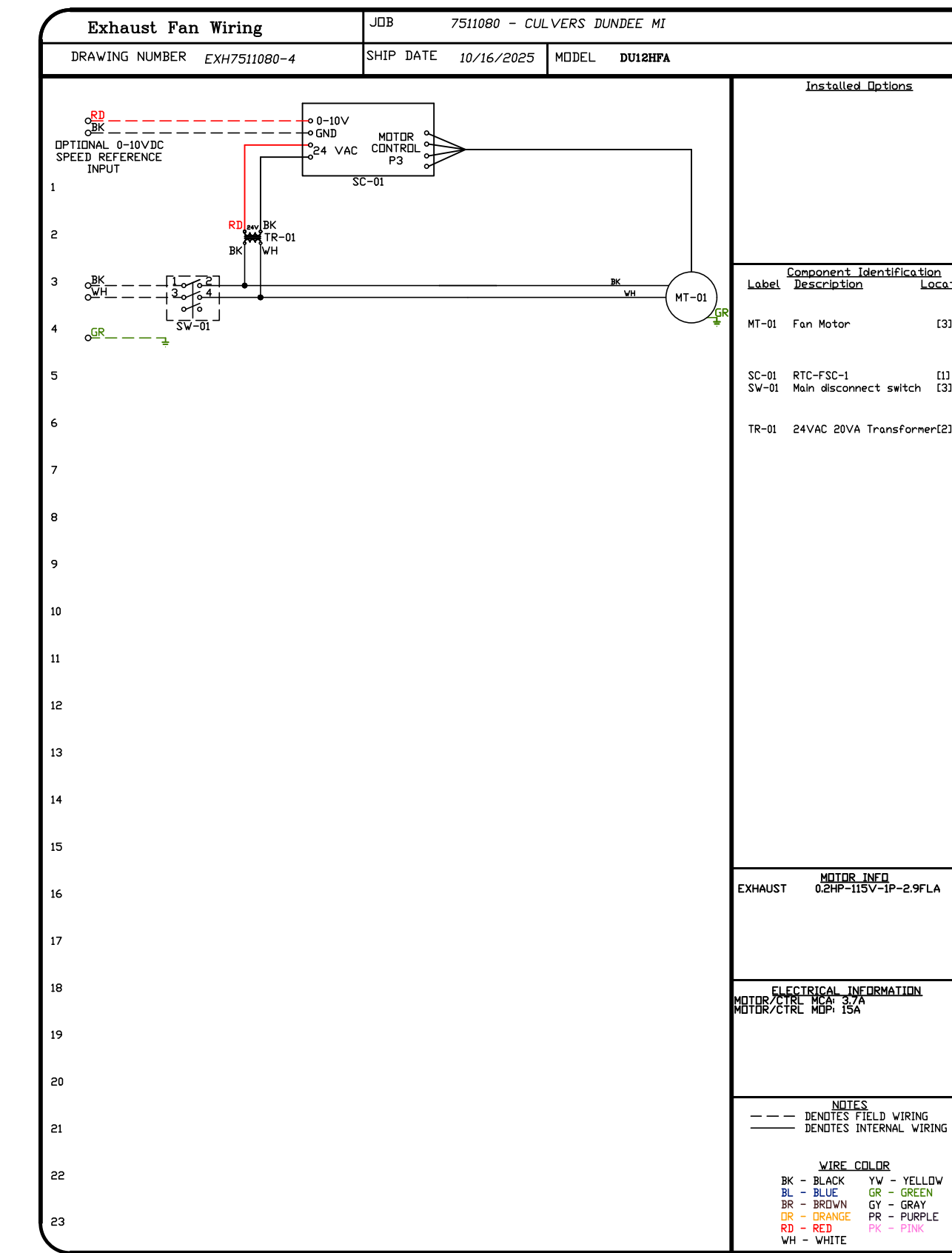
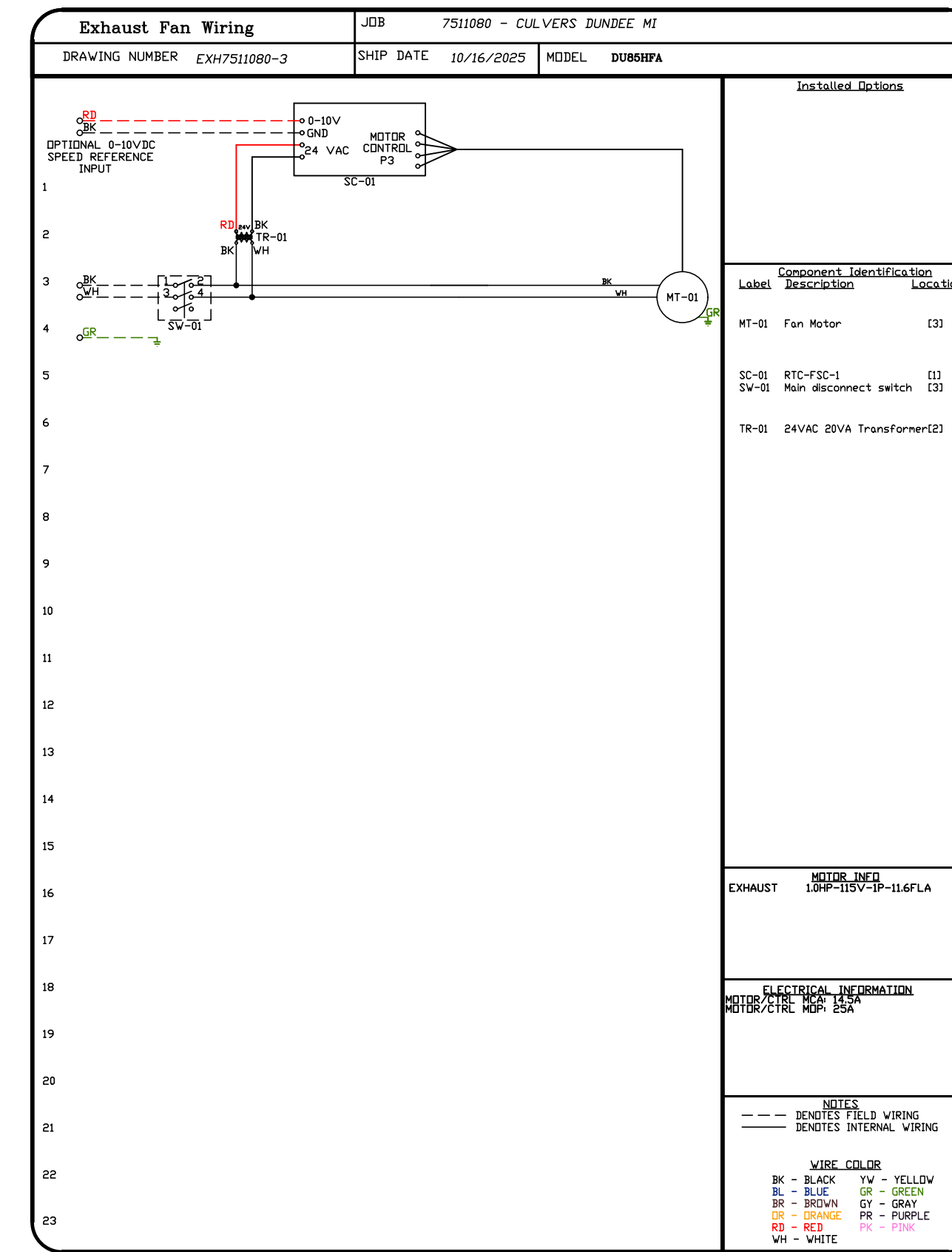
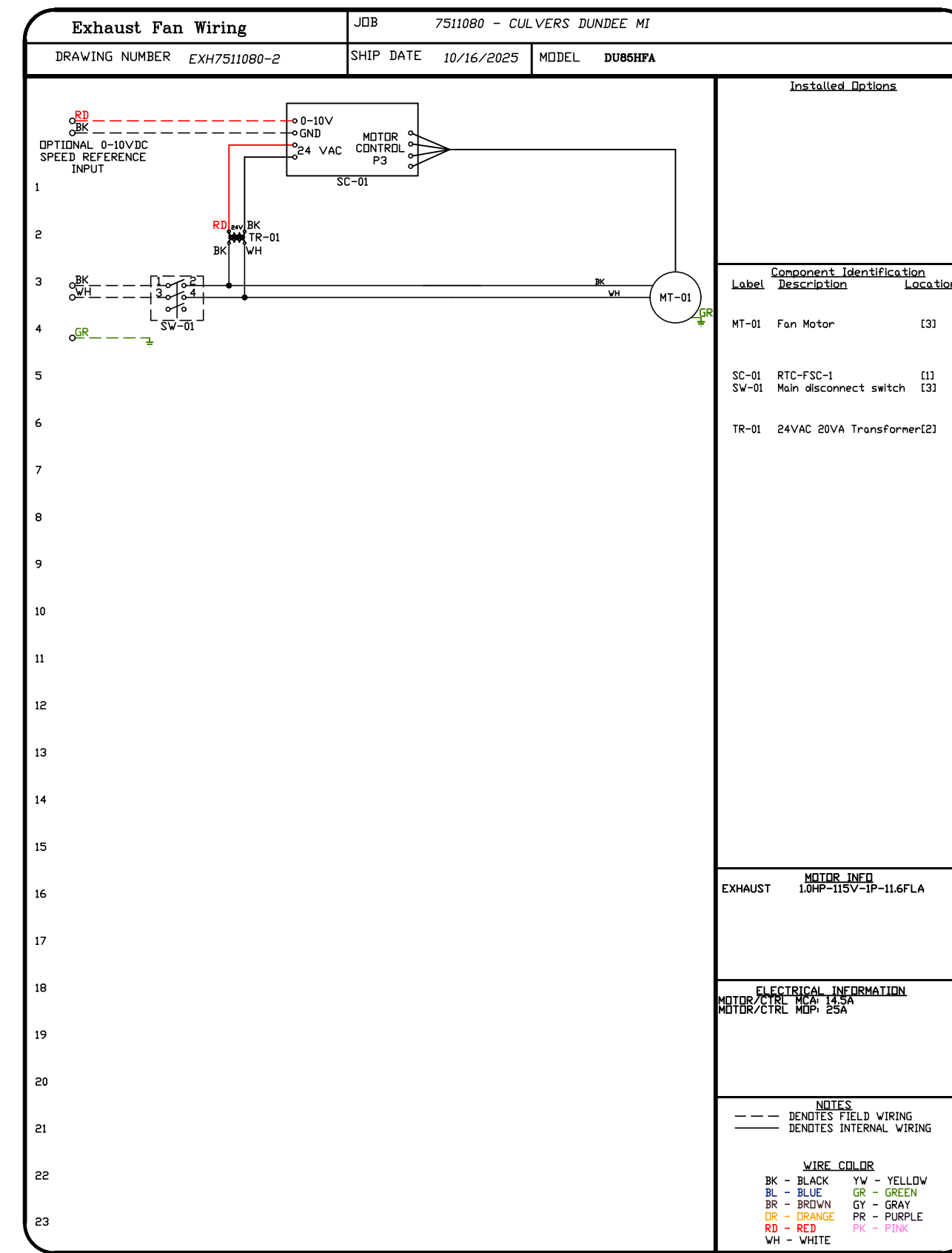
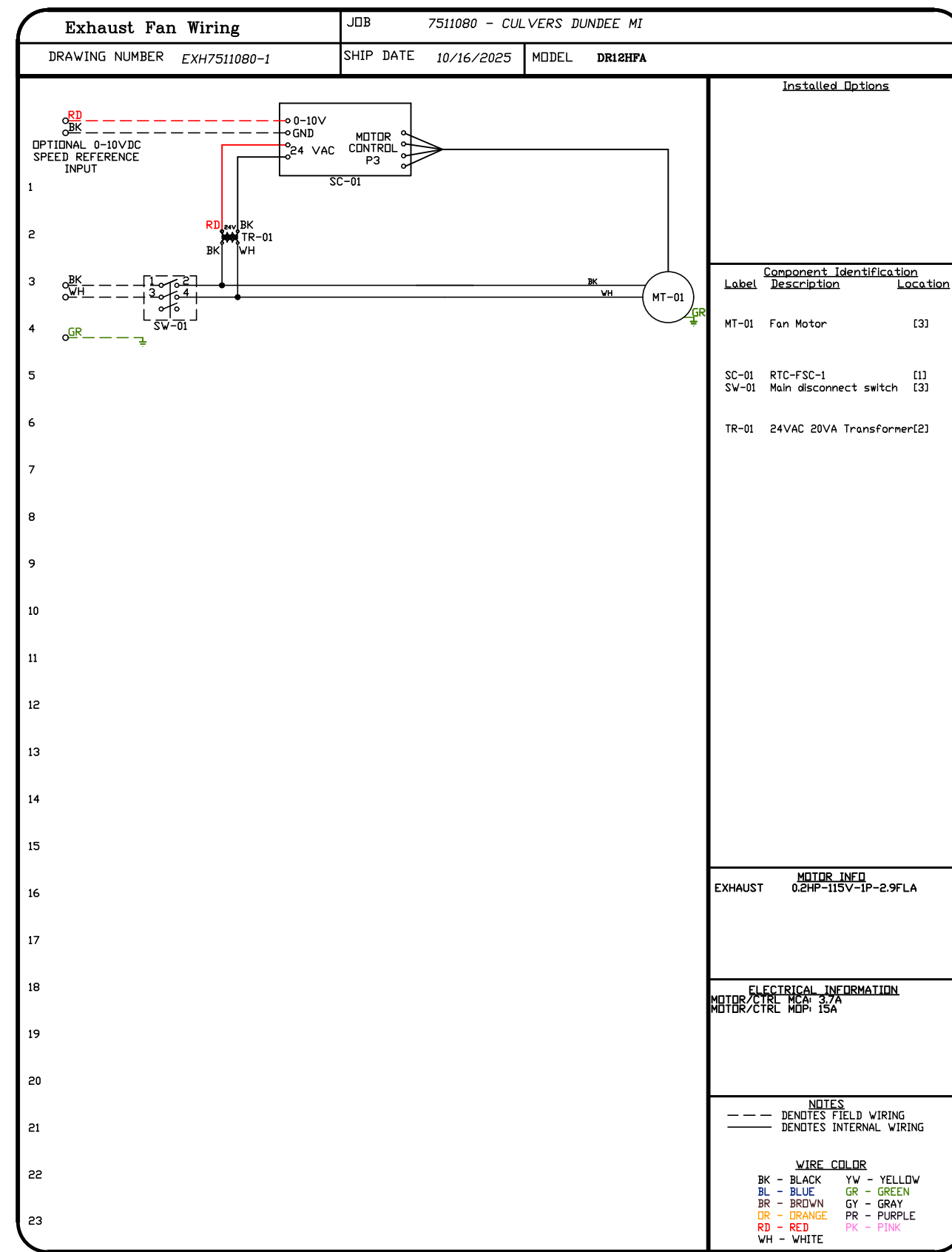
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 16495 Tecumseh Street,  
 Dundee, MI, 48131

DATE: 10/16/2025  
 DWG.#: 7511080  
 DRAWN BY: sluddy jr  
 SCALE: 1/2" = 1'-0"  
 MASTER DRAWING

SHEET NO. 9



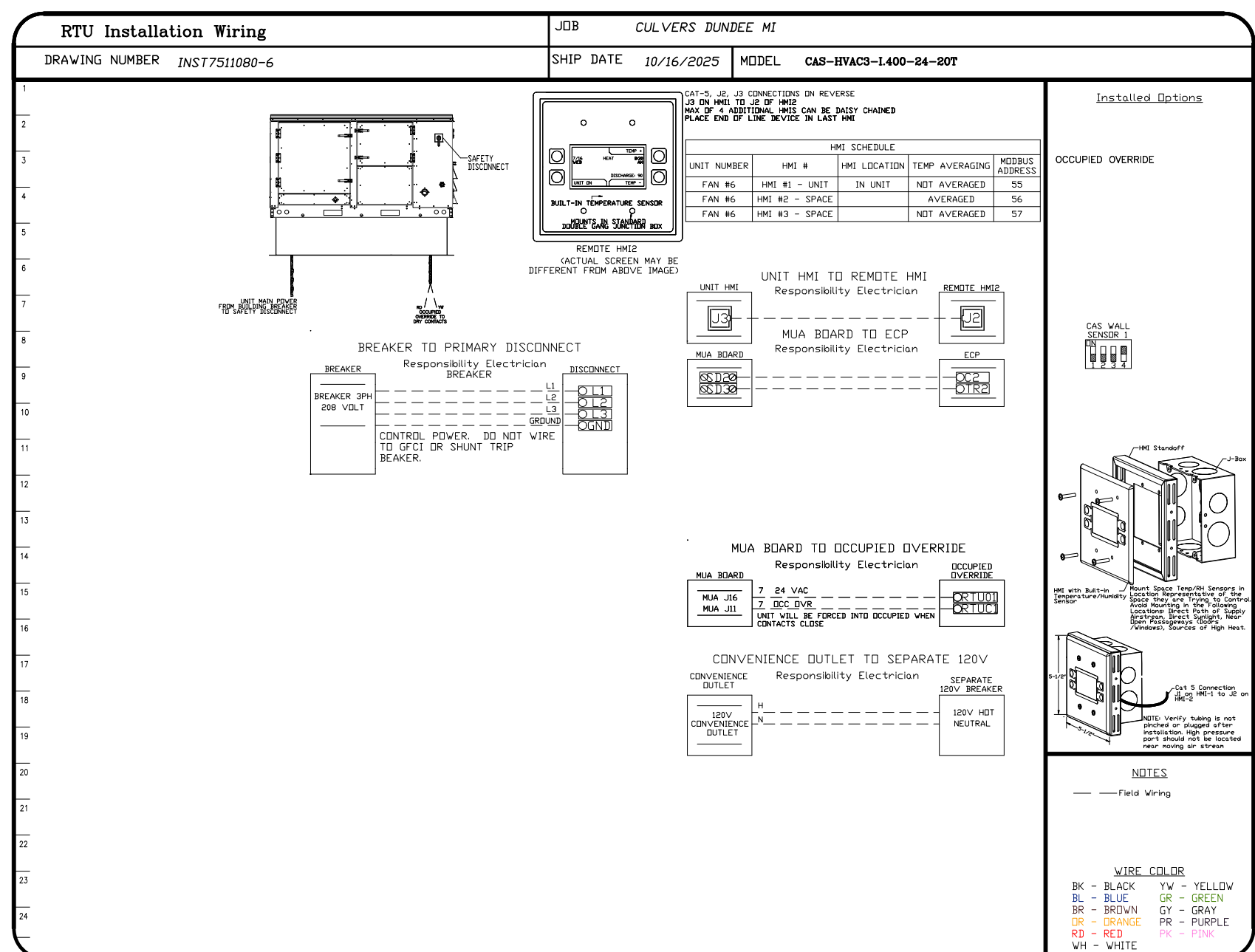
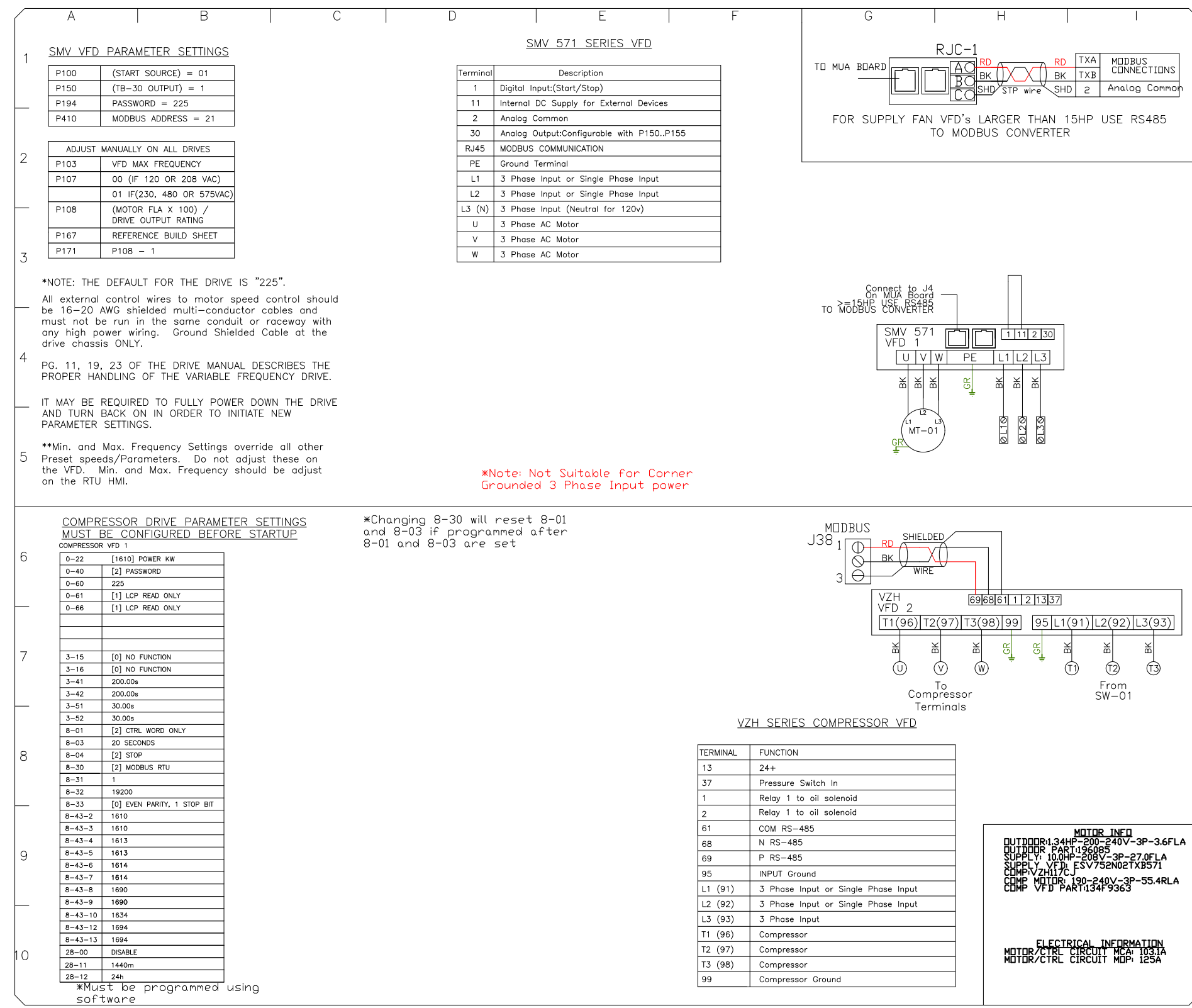
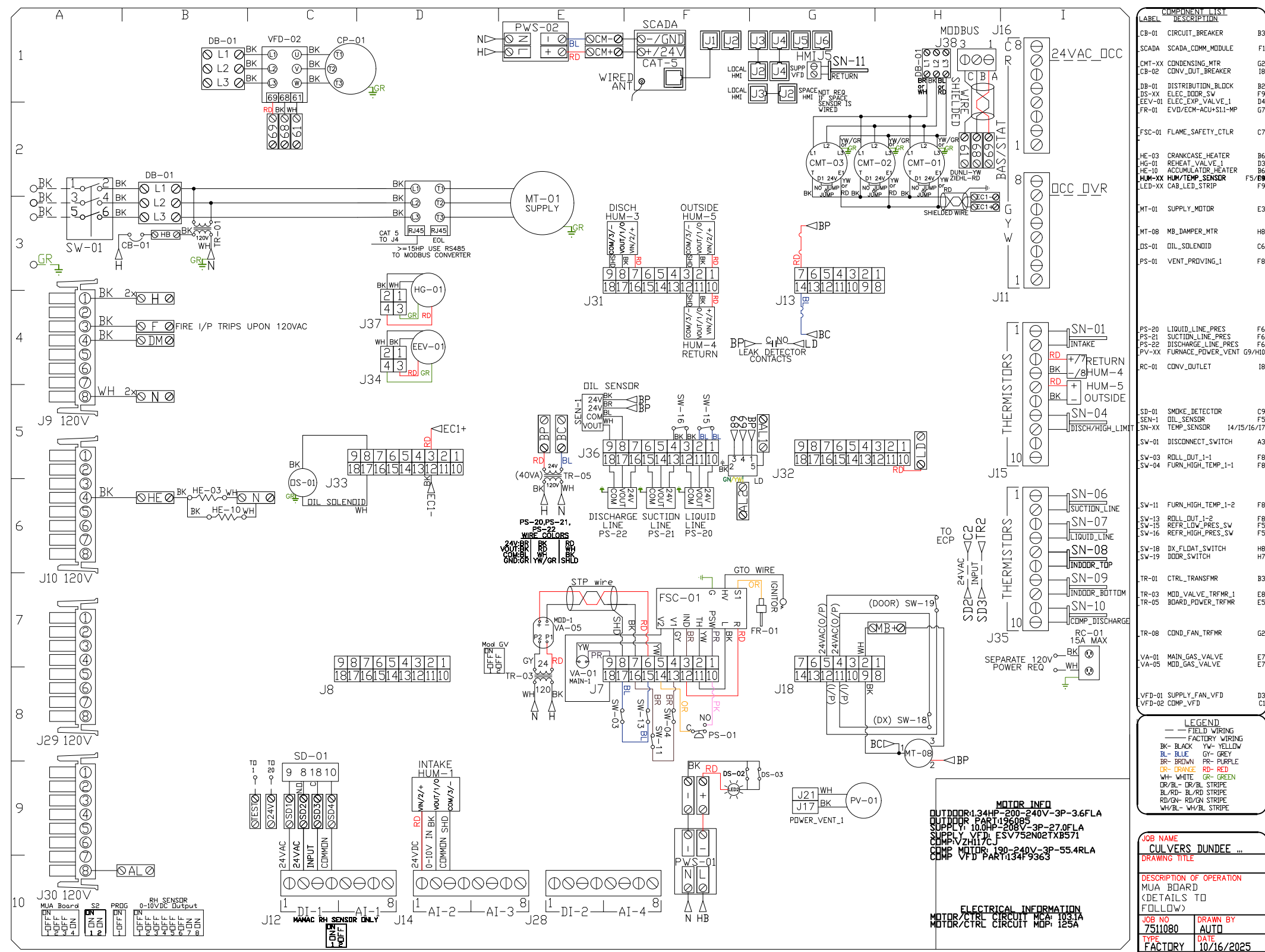
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**MASTER DRAWING**

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 10



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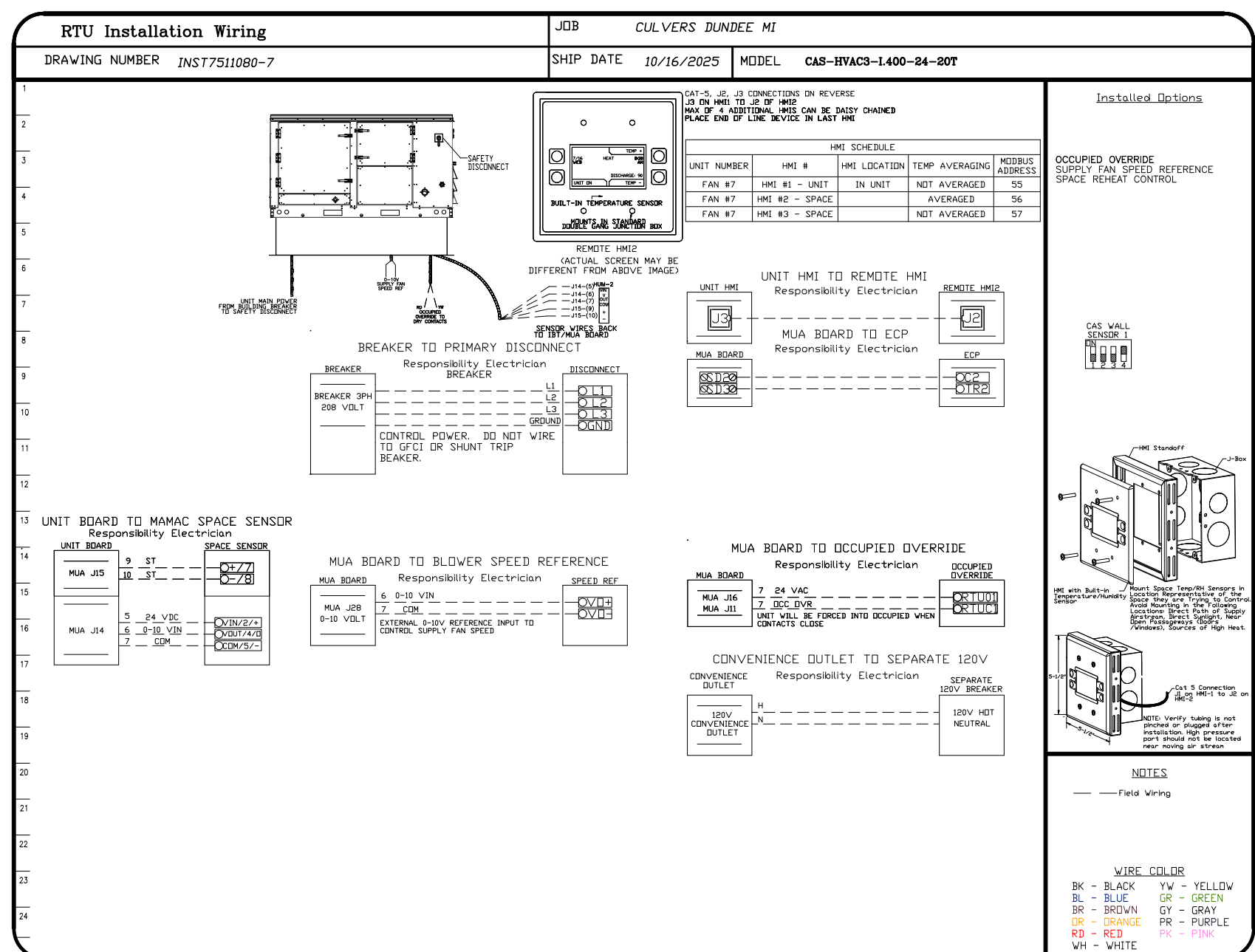
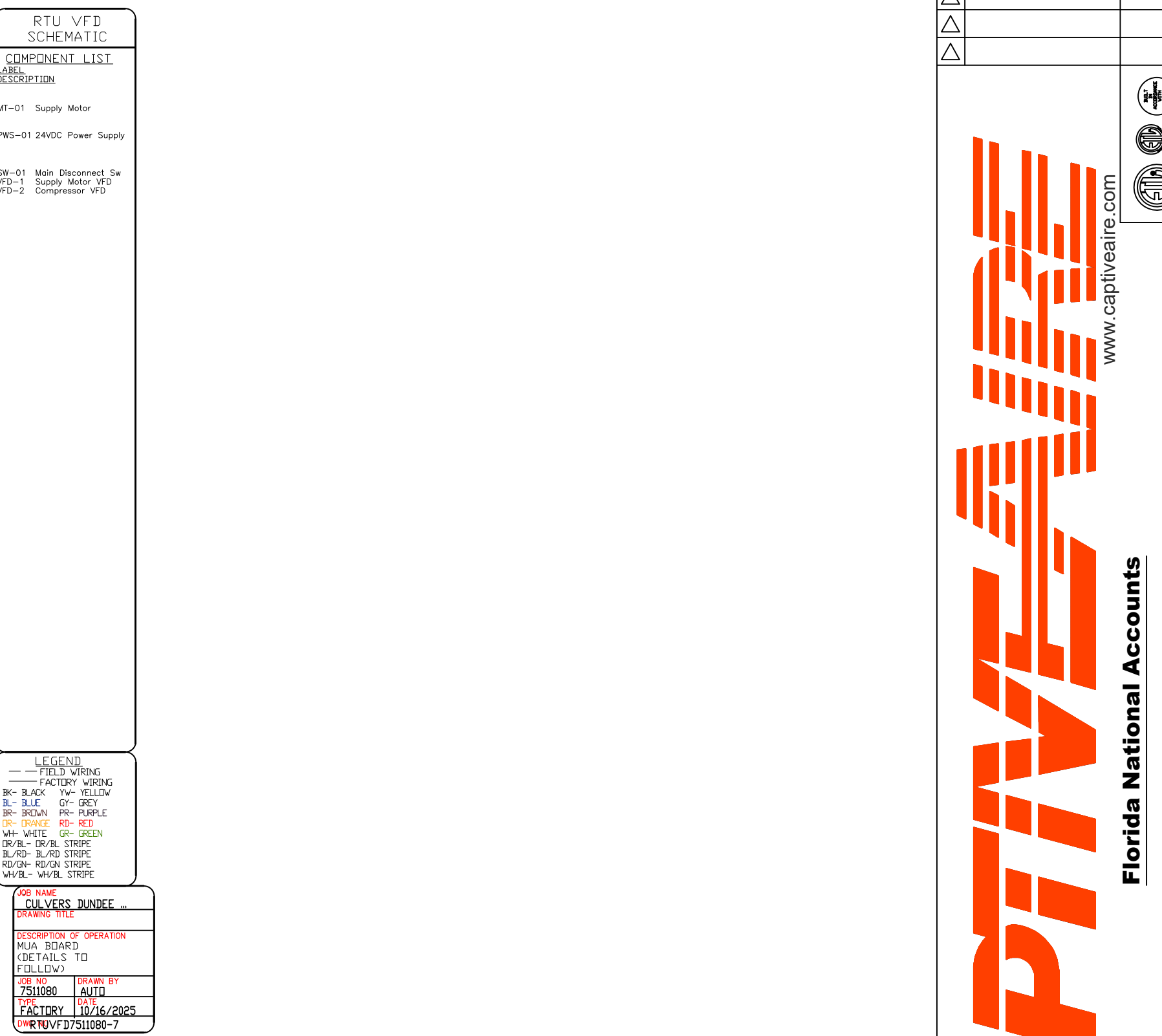
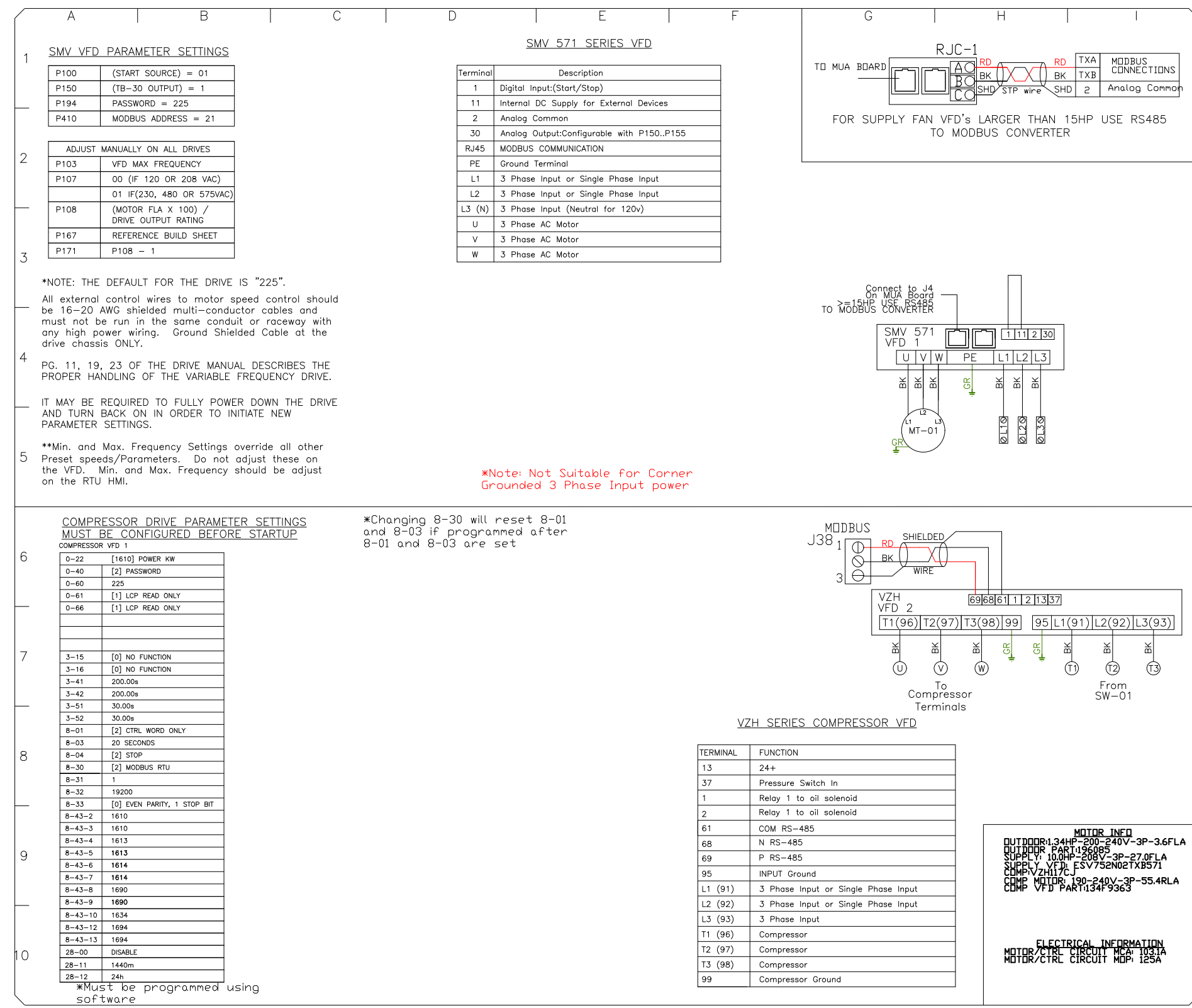
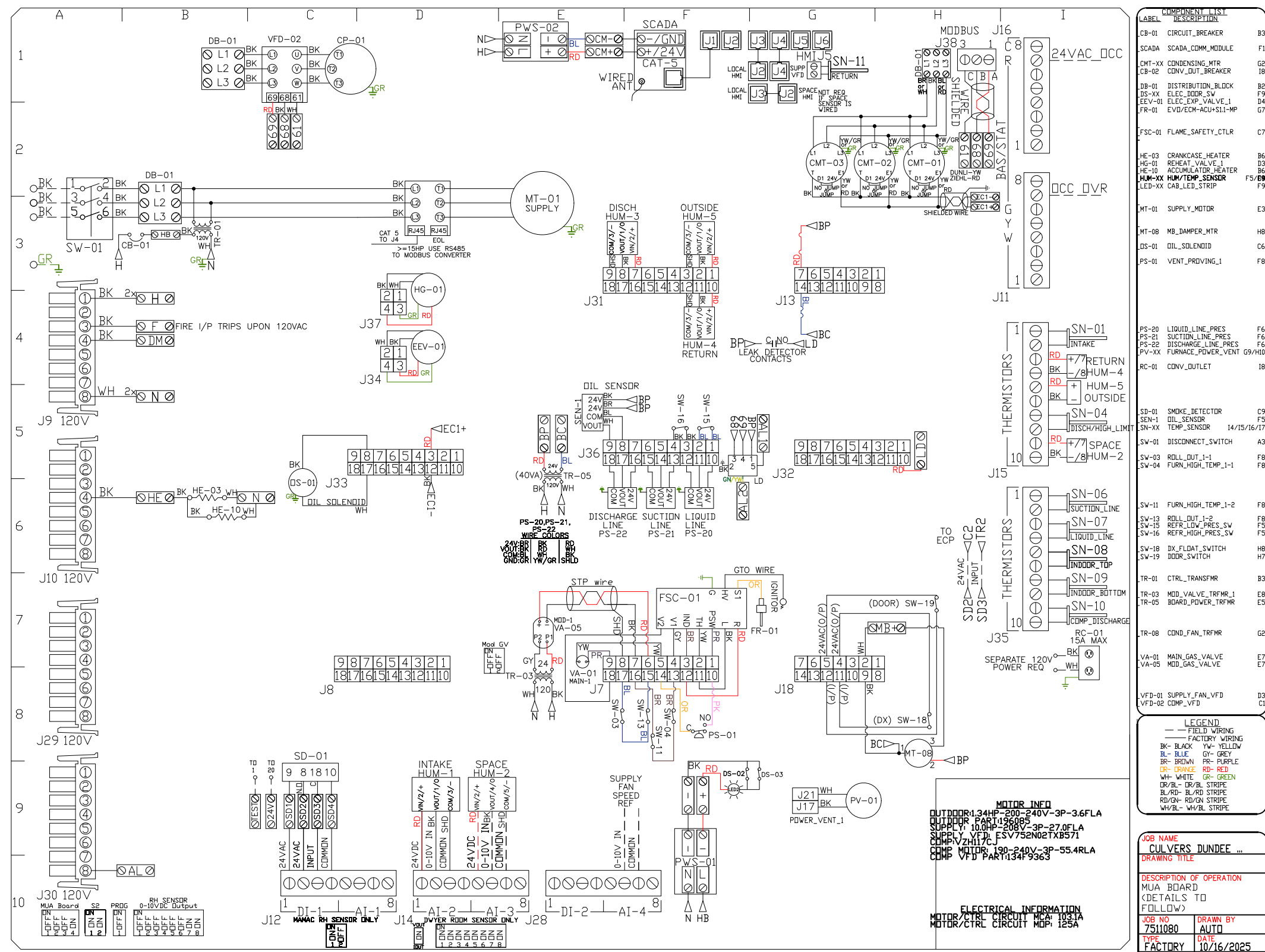
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 Dundee, MI, 48131

**DATE:** 10/16/2025  
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 11

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

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12



DUCTWORK #1 PARTS - JOB#7511080 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	DW1235DWLT-2R-S						40.86		1	DOUBLE WALL DUCT - 12" INNER DUCT, 35' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P3	DW1247DWAJD-2R-S						83.19		1	DOUBLE WALL ADJUSTABLE DUCT - 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.
P4 ASSEMBLED W/P5	DW124550DWLTP-2R-S						53.52		1	DOUBLE WALL DUCT - 12" INNER DUCT, 45.5' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
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 DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN.
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	DW1235DWLT-2R-S						40.86		1	DOUBLE WALL DUCT - 12" INNER DUCT, 35' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL.
P8	DW1247DWAJD-2R-S						83.19		1	DOUBLE WALL ADJUSTABLE DUCT - 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.
P9 ASSEMBLED W/P10	DW124550DWLTP-2R-S						53.52		1	DOUBLE WALL DUCT - 12" INNER DUCT, 45.5' LONG - 2 LAYERS REDUCED CLEARANCE - 16" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
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 DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN.
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW12DWCLASY-2R-S						6.44		4	DUCT - 12" DUCT - 16" DOUBLE "V" CLAMP - 2R INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							507.92			
TOTAL PRESSURE										

DOUBLE WALL FACTORY BUILT DUCTWORK

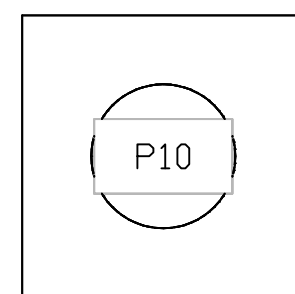
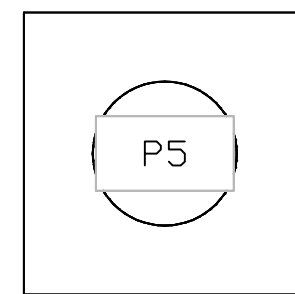
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.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

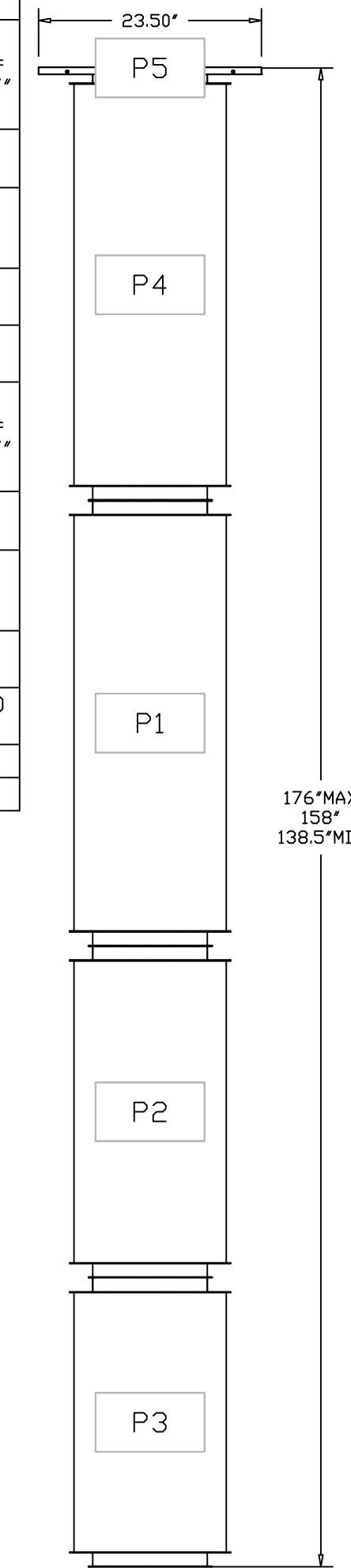
VERTICAL			
TYPE	WALL SUPPORT (FT)	CURB SUPPORT (FT)	FLOOR SUPPORT (FT)
2R & 2R HT (5'-16')	20'	24'	24'
2R (18')	18'	24'	24'
3R & 3Z (5'-24')	10'	24'	24'
3Z (26' -36')	10'	20'	20'

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

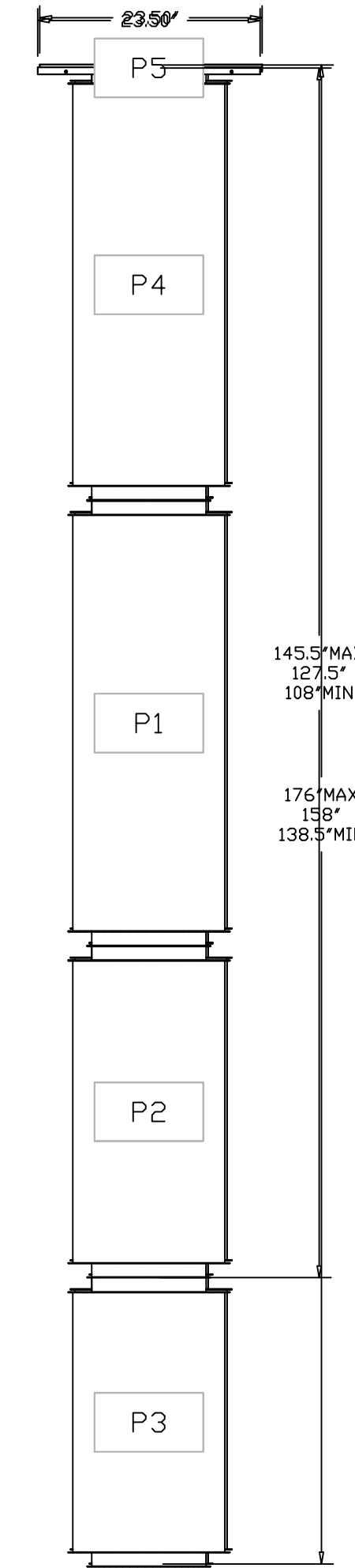
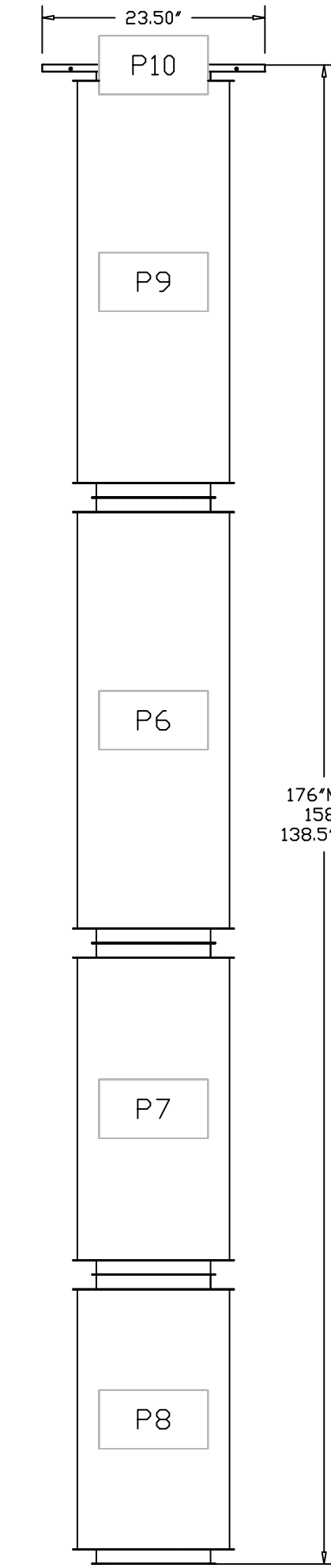
DUCTWORK #1 TOP VIEW  
GREASE DUCT



DUCTWORK #1 FRONT VIEW  
GREASE DUCT



DUCTWORK #1 SIDE VIEW  
GREASE DUCT



**REVISIONS**

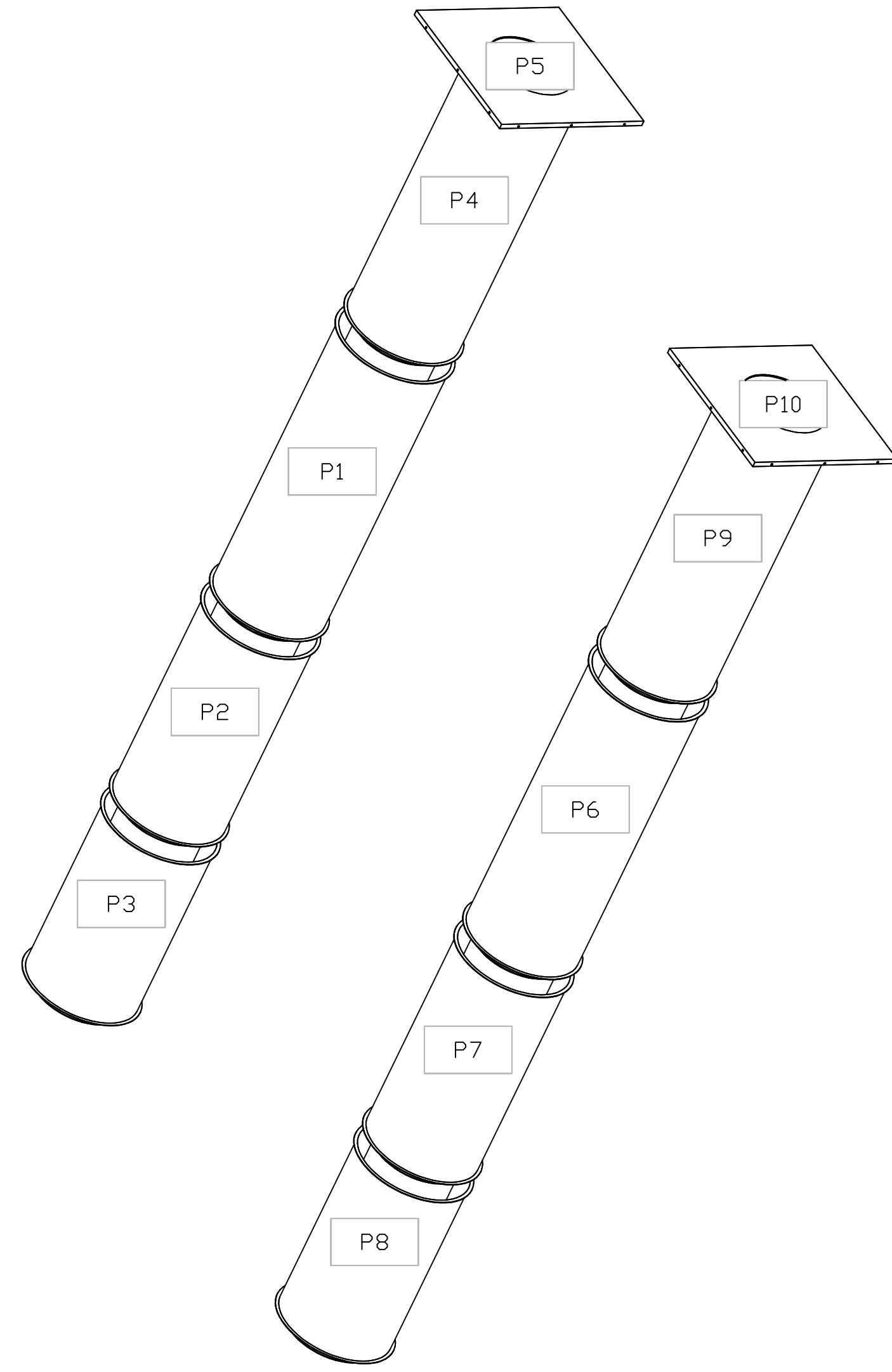
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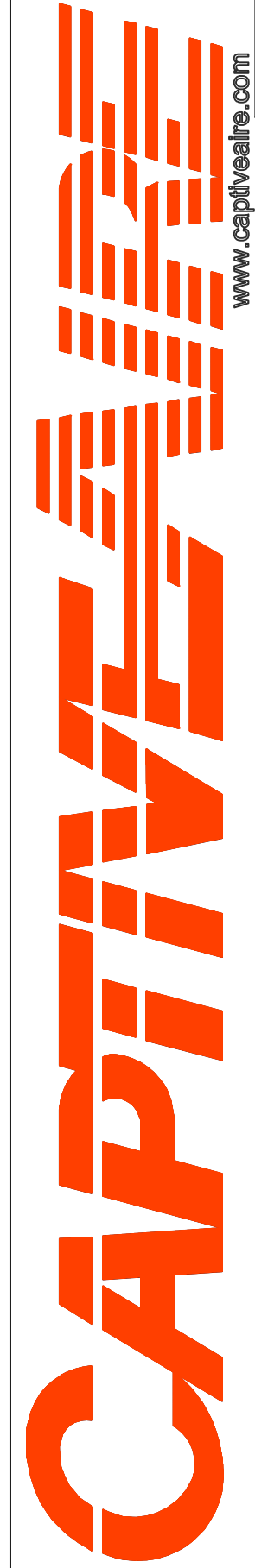
CULVERS DUNDEE MI  
16495 Tecumseh Street,  
Dundee, MI, 48131

DATE: 10/16/2025  
DWG #: 7511080  
DRAWN BY: studdy jr  
SCALE: 3/4" = 1'-0"  
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DUCTWORK #1 SE VIEW  
GREASE DUCT



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DWG. #: 7511080
DRAWN BY: sluddy jr
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.  
15

**DUCTWORK #2 PARTS - JOB#7511080 DISH DUCT**

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1011LT	350				-0.0009	3.90	642	1	SINGLE WALL DUCT 10" DIAMETER, 11' LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P2	DW1090ASY	350				-0.0189	6.49	642	1	SINGLE WALL DUCT 90 DEGREE ELBOW, 10" DUCT, ASSEMBLY.
P3	DW1004C2D	350				-0.0003	1.77	642	1	SINGLE WALL DUCT OFF SET COLLAR - 10" DIAMETER DUCT - 1/2" PITCH.
P4	DW1047LT	350				-0.0040	15.72	642	1	SINGLE WALL DUCT 10" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P5	DW1047LT	350				-0.0040	15.72	642	1	SINGLE WALL DUCT 10" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P6	DW1035LT	350				-0.0030	11.78	642	1	SINGLE WALL DUCT 10" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P7	DW1048AJDKIT	350				-0.0020	18.63	642	1	SINGLE WALL DUCT ADJUSTABLE, 10" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 10" ADJUSTABLE COLLAR - STAINLESS STEEL.
P8	DW10SUBRASY						2.54		1	DUCT SUPPORT BRACKET KIT, 10" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. - 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P9	DW10SUBRASY						2.54		1	DUCT SUPPORT BRACKET KIT, 10" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. - 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P10	DW1004C2D	350				-0.0003	1.77	642	1	SINGLE WALL DUCT OFF SET COLLAR - 10" DIAMETER DUCT - 1/2" PITCH.
P11	DW1090ASY	350				-0.0108	6.49	642	1	SINGLE WALL DUCT 90 DEGREE ELBOW, 10" DUCT, ASSEMBLY.
P12	DW1047LT	350				-0.0040	15.72	642	1	SINGLE WALL DUCT 10" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P13	DW1029LT	350				-0.0025	9.75	642	1	SINGLE WALL DUCT 10" DIAMETER, 29" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P14 ASSEMBLED W/P15	DW1024AJDKIT	350				-0.0013	10.09	642	1	SINGLE WALL DUCT ADJUSTABLE, 10" DIAMETER, 23.5" LONG, FLANGE AT ONE END WITH A 10" ADJUSTABLE COLLAR - STAINLESS STEEL.
P15 ASSEMBLED W/P14 D=B SYSTEM AT P15	DW1710TPDBEX	350					6.50	642	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 17-1/2" CURB TO 10" DUCT, 16 GA ALUMINIZED STEEL. FOR USE WITH EXHAUST FANS.
						-0.0830	0.00			
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW10CLASY						0.82		12	DUCT 'V' CLAMP WITH NEW DESIGN 14 GA BRACKETS, 10" DUCT, ASSEMBLY.
TOTAL WEIGHT							140.85			
TOTAL PRESSURE						-0.1350				

**SINGLE 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 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.

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

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

**REVISIONS**

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**DATE:** 10/16/2025

**DWG.#:**  
7511080

**DRAWN BY:** sluddy jr

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

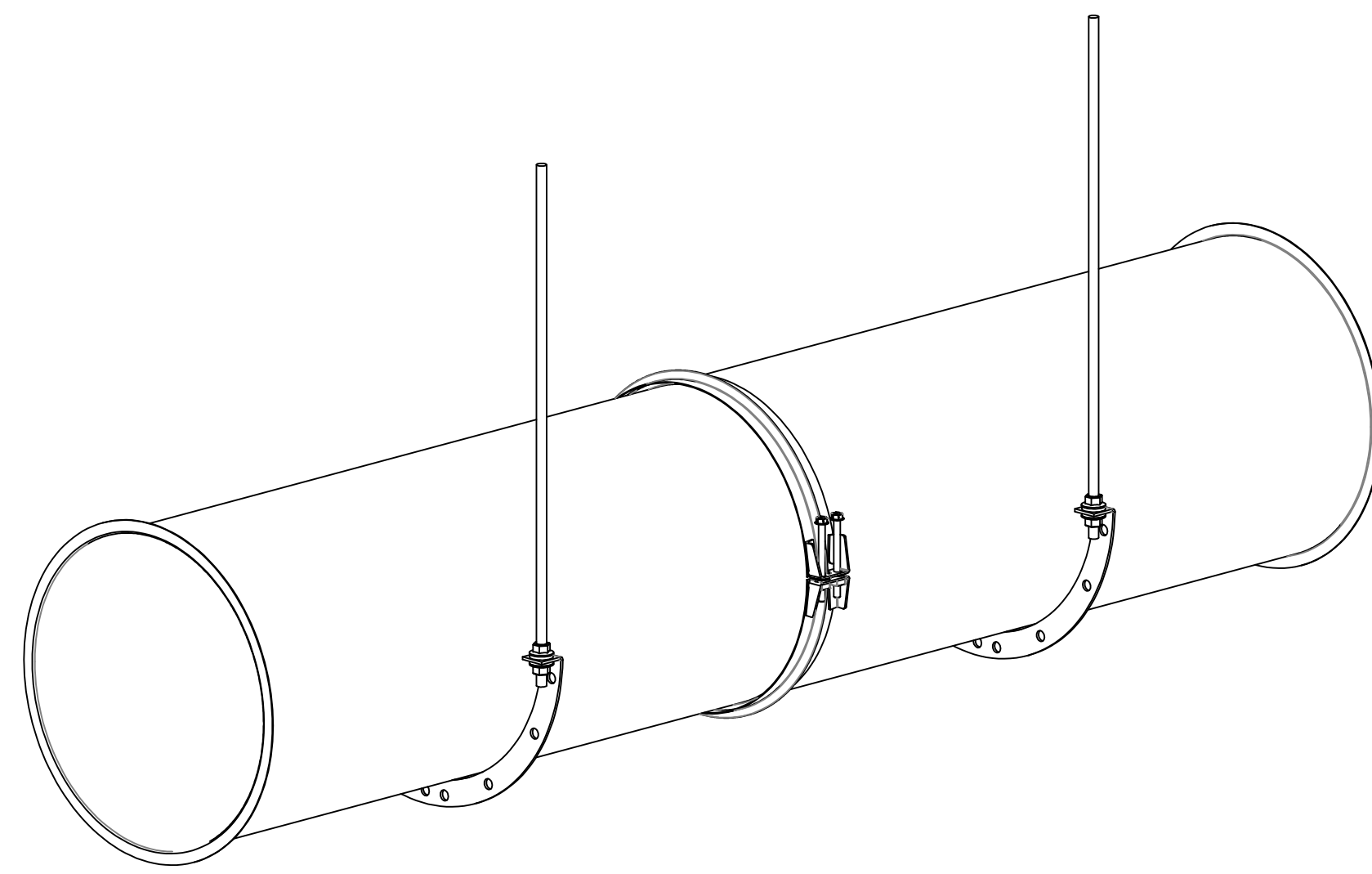
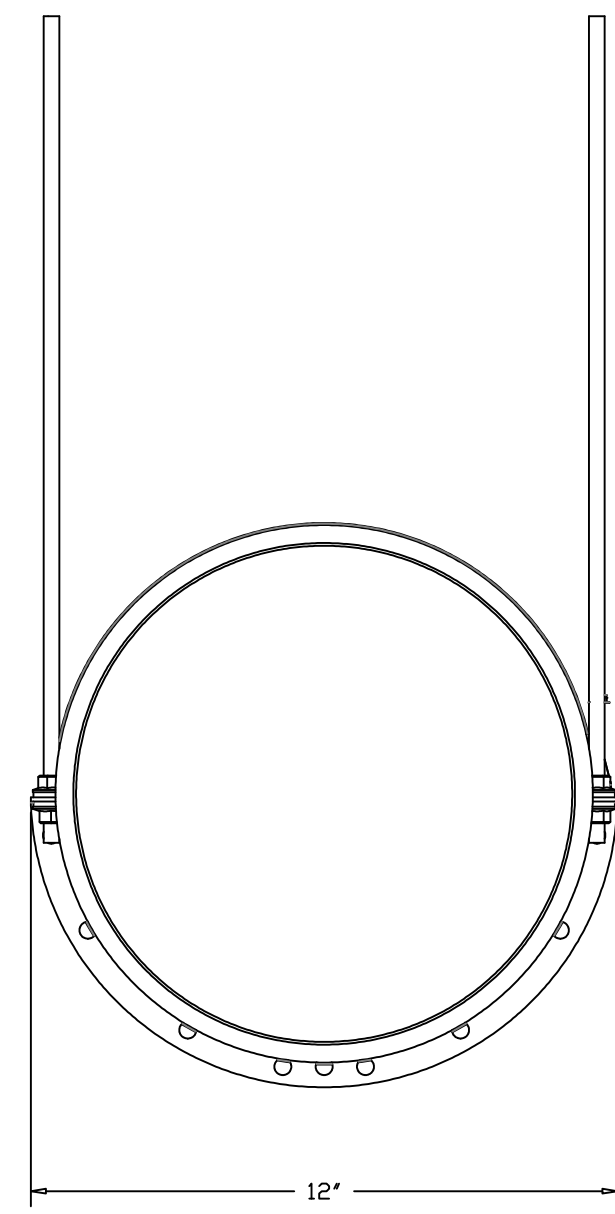
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**SHEET NO.**  
16

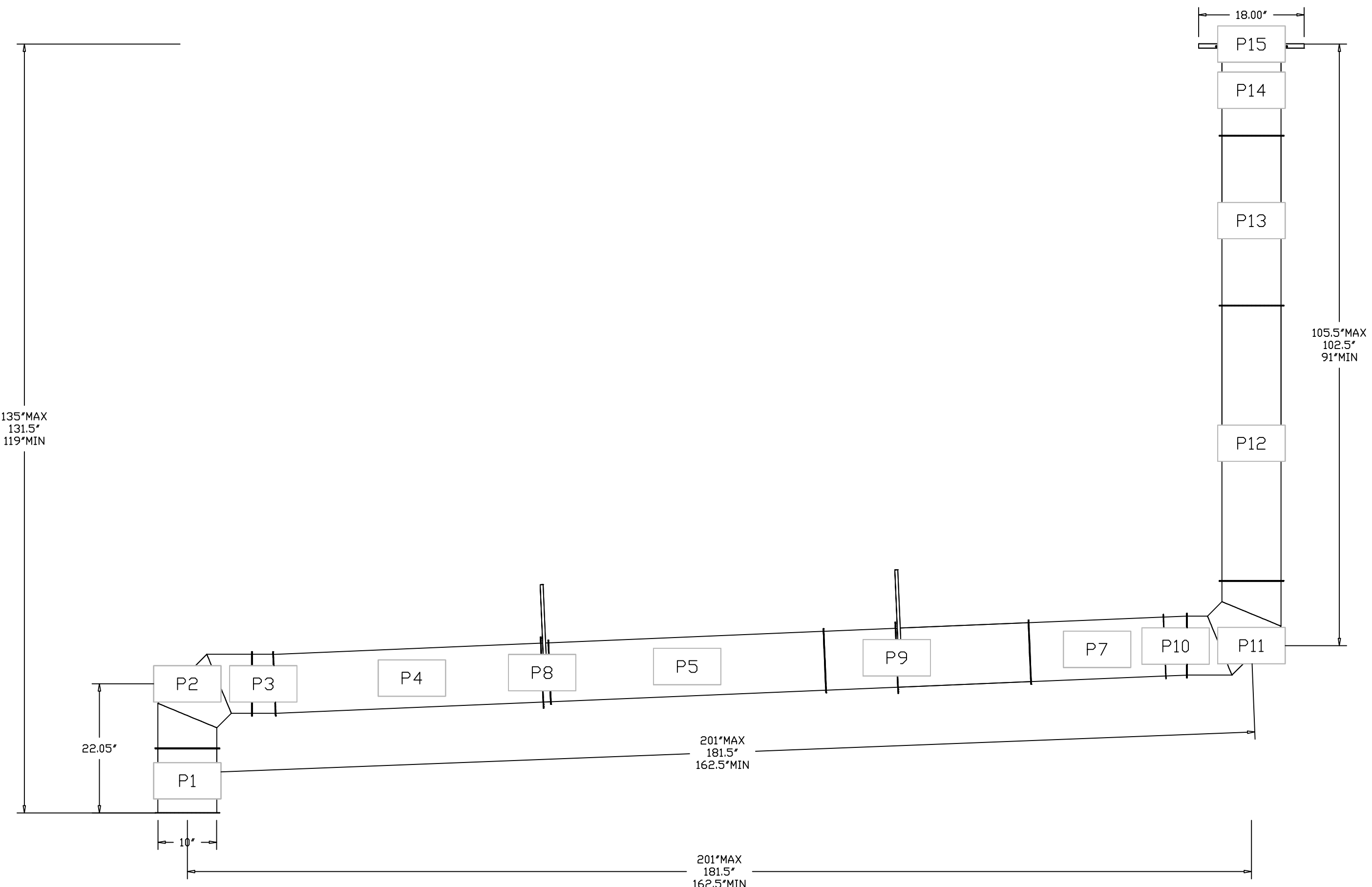
# SUPPORT SYSTEM DETAILS #2

DUCTWORK #2 FRONT VIEW  
DISH DUCT

## DW10SUBBRASY - HORIZONTAL SUPPORT



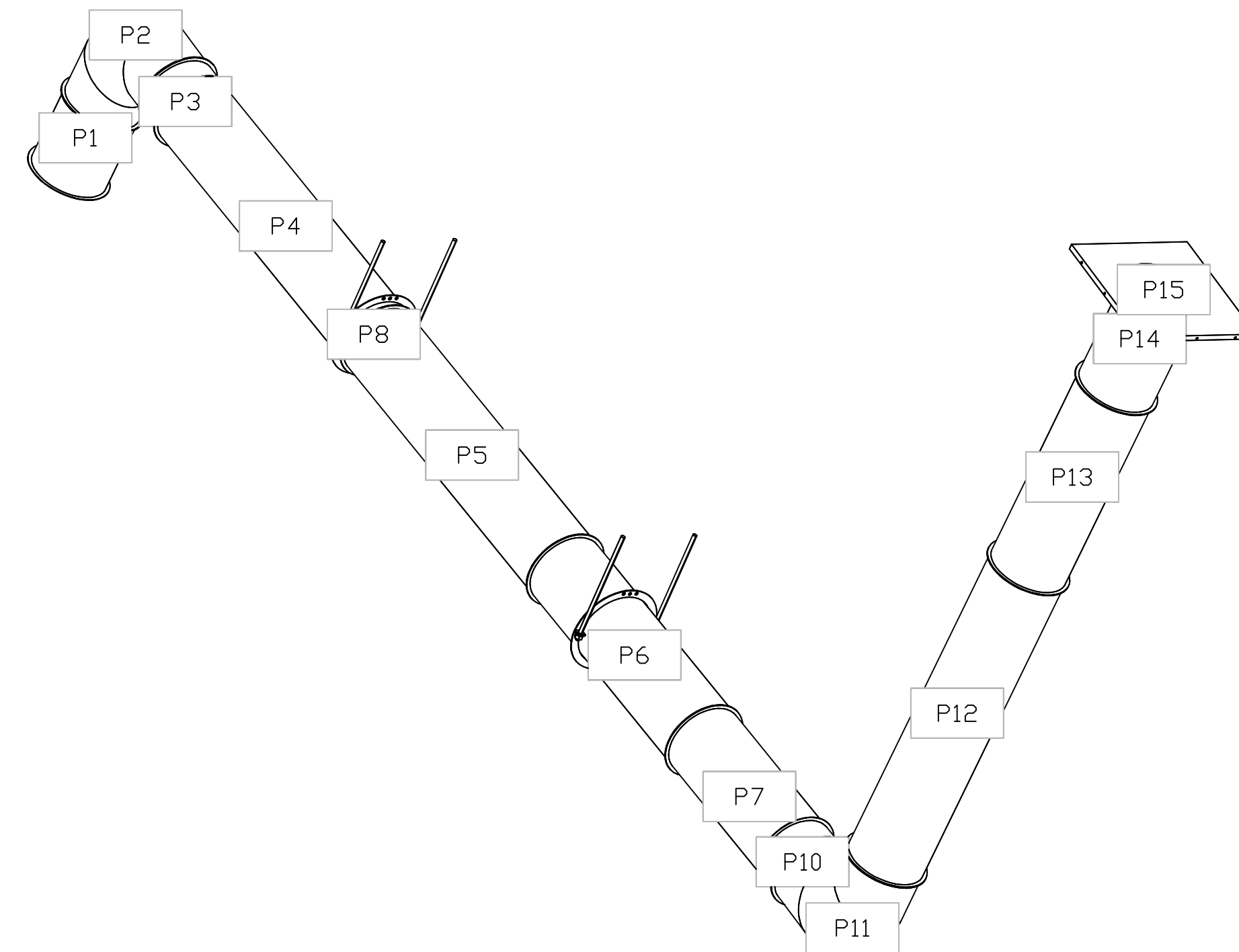
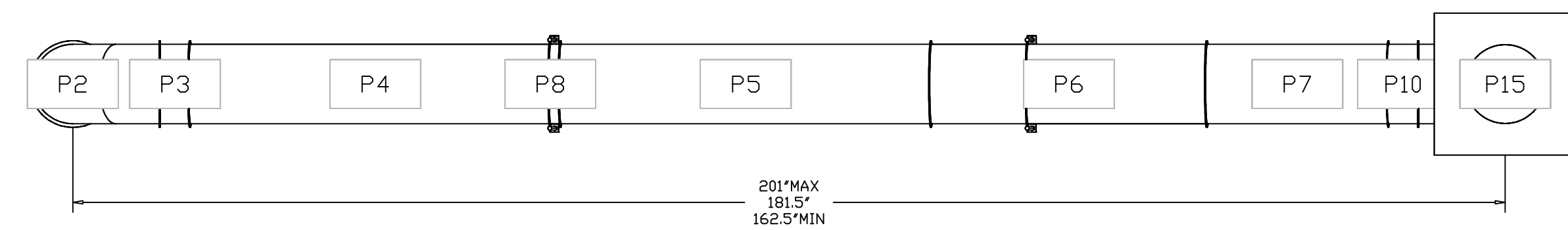
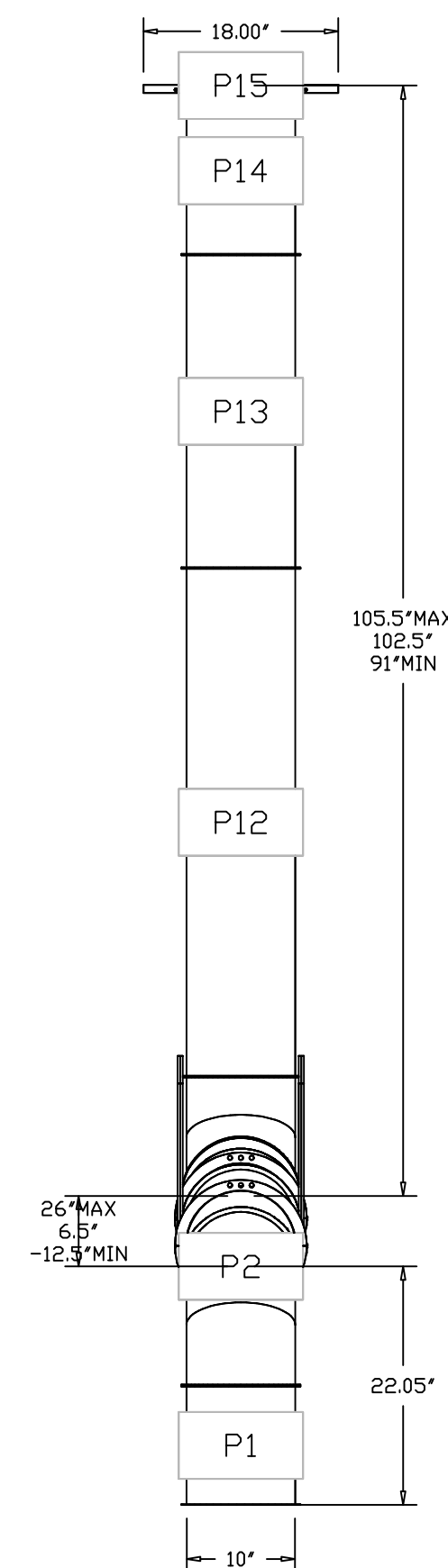
135" MAX  
131.5"  
119" MIN



DUCTWORK #2 SIDE VIEW  
DISH DUCT

DUCTWORK #2 TOP VIEW  
DISH DUCT

DUCTWORK #2 SE VIEW  
DISH DUCT



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MASTER DRAWING

SHEET NO.  
17

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.

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**DATE:** 10/16/2025

**DWG.#:**  
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**DRAWN BY:** sluddy jr

**SCALE:**  
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