

HOOD INFORMATION - JOB#4548697

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG				
										WIDTH	LENG	HEIGHT	DIA			CFM	VEL	SP	END TO END	ROW
1	HD 1	5424 ND-2-PSP-F	CAPTIVEAIRE	9' 0"	600 DEG	I	HEAVY	200	1800			4'	14"	1800	1684	-0.888'	1440	430 SS WHERE EXPOSED	LEFT	ALONE
2	HD 2	5424 ND-2-PSP-F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	200	2000			4'	14"	2000	1871	-1.068'	1600	430 SS WHERE EXPOSED	RIGHT	ALONE

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

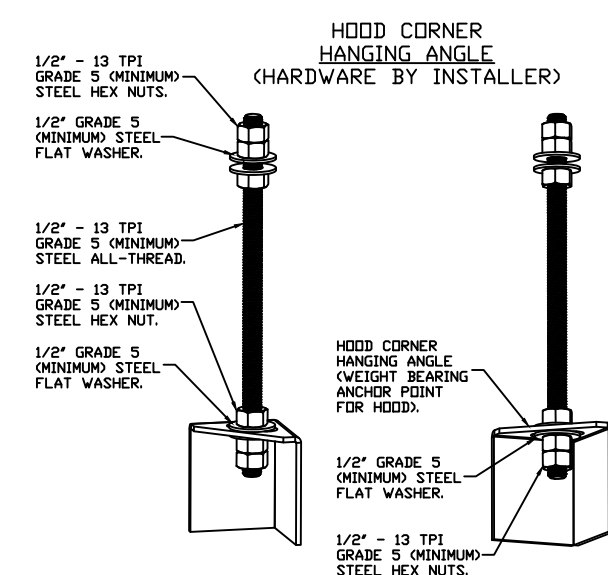
HOOD NO	TAG	TYPE	FILTER(S)		EFFICIENCY @ 7 MICRONS	QTY	LIGHT(S)		WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S)			FIRE SYSTEM	HOOD HANGING WEIGHT
			QTY	LENGTH			TYPE	SIZE				FIRE SYSTEM	ELECTRICAL	SWITCHES		
1	HD 1	CAPTRATE SOLD FILTER	6	16"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO							584 LBS
2	HD 2	CAPTRATE SOLD FILTER	7	16"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO	RIGHT	12"x54"x24"	ANSUL R102	3.0/3.0	DCV-2111	1 LIGHT 1 FAN	855 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	HD 1	FIELD WRAPPER 16.00" HIGH FRONT.
		BACKSPLASH 118.00" HIGH X 240.00" LONG 430 SS VERTICAL.
		BACKSPLASH 118.00" HIGH X 3.00" LONG 430 SS VERTICAL.
		BACKSPLASH 118.00" HIGH X 18.00" LONG 430 SS VERTICAL.
		LEFT END STANDOFF 1" WIDE 54" LONG INSULATED.
		LEFT SIDESPLASH 118.00" HIGH X 54.00" LONG 430 SS VERTICAL.
2	HD 2	BACKSPLASH - OUTSIDE CORNER 78.00" HIGH X 2.00" LEG LENGTH 430 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		RISER SENSOR INSTALL 3IN DBL.
		FIELD WRAPPER 16.00" HIGH FRONT, RIGHT.
		INSULATION FOR TOP OF HOOD.
2	HD 2	INSULATION FOR BACK OF HOOD.
		RISER SENSOR INSTALL 3IN DBL.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 78" HIGH INSULATED 430 SS.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)			
							WIDTH	LENG	DIA	CFM
1	HD 1	Front	109"	14"	6"	MUA	12"	24"	720	0.196"
2	HD 2	Front	132"	14"	6"	MUA	12"	24"	720	0.196"
						MUA	12"	24"	799	0.223"
2	HD 2	Front	132"	14"	6"	MUA	12"	24"	799	0.223"
						MUA	12"	24"	799	0.223"

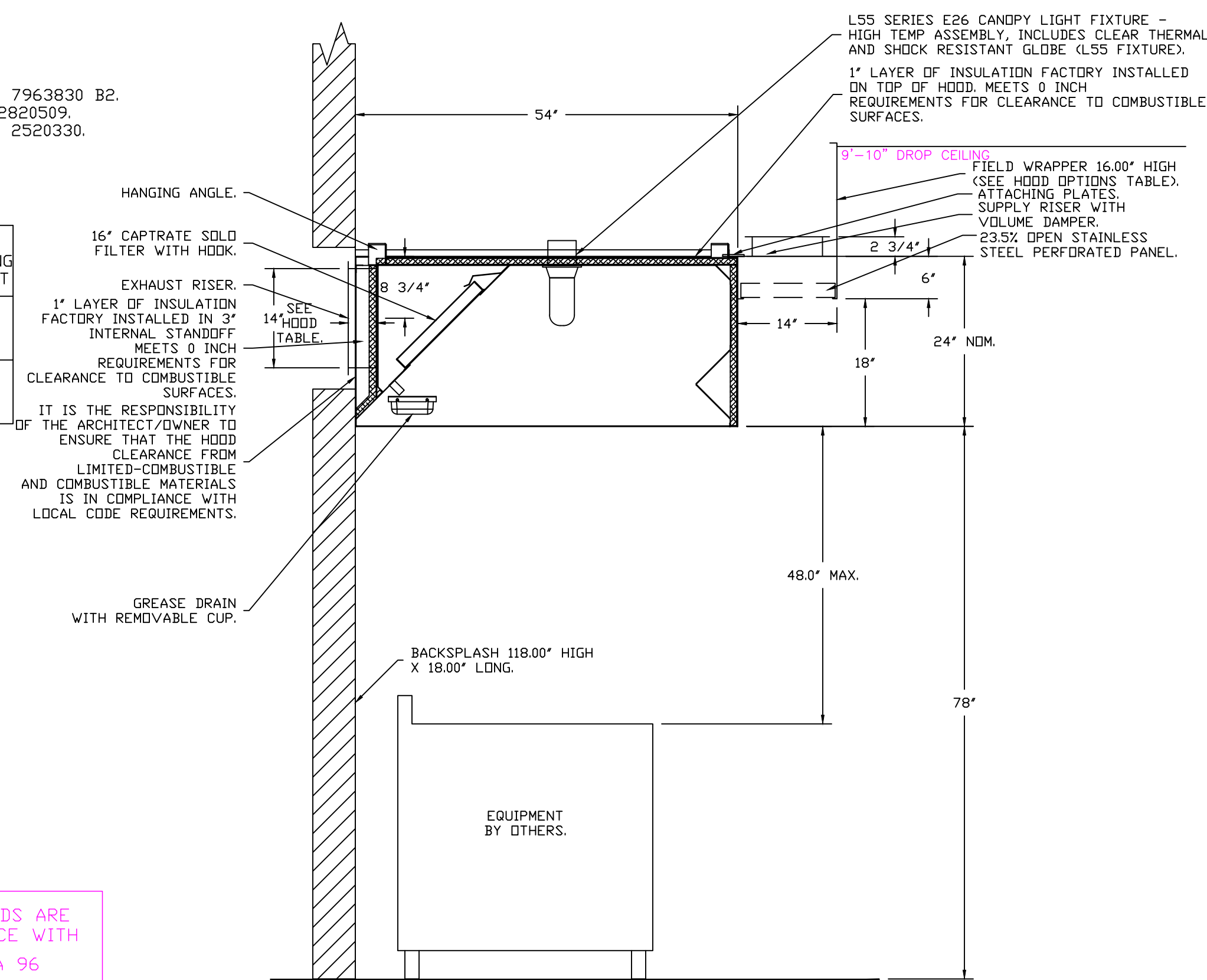


ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHER 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 ANCHERS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

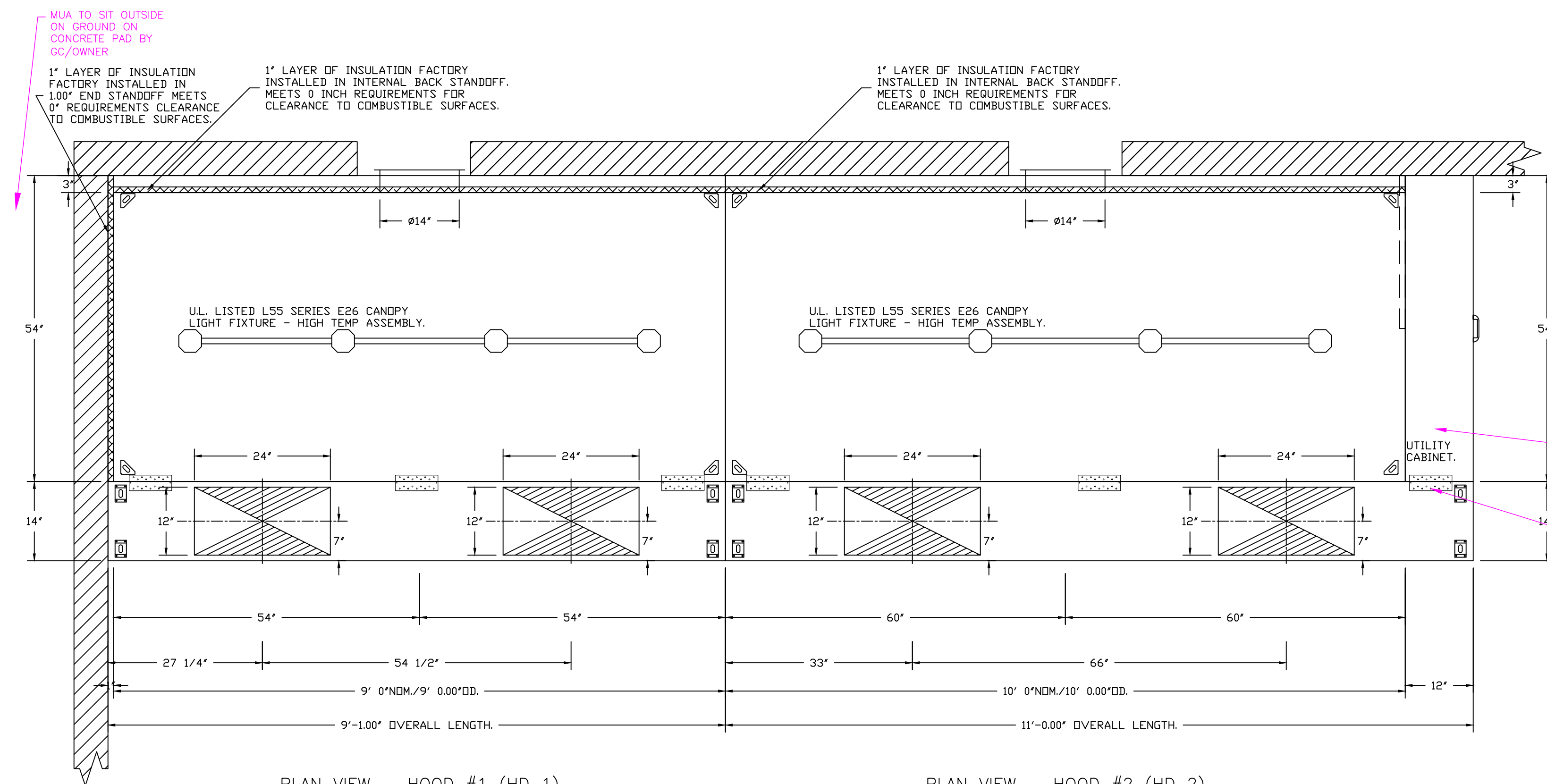
CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:
 ETL SANITATION LISTED
 ETL LISTED FILE# 3054804-001

HOOD SYSTEM IS FABRICATED & DESIGNED PER UL-710 STANDARDS



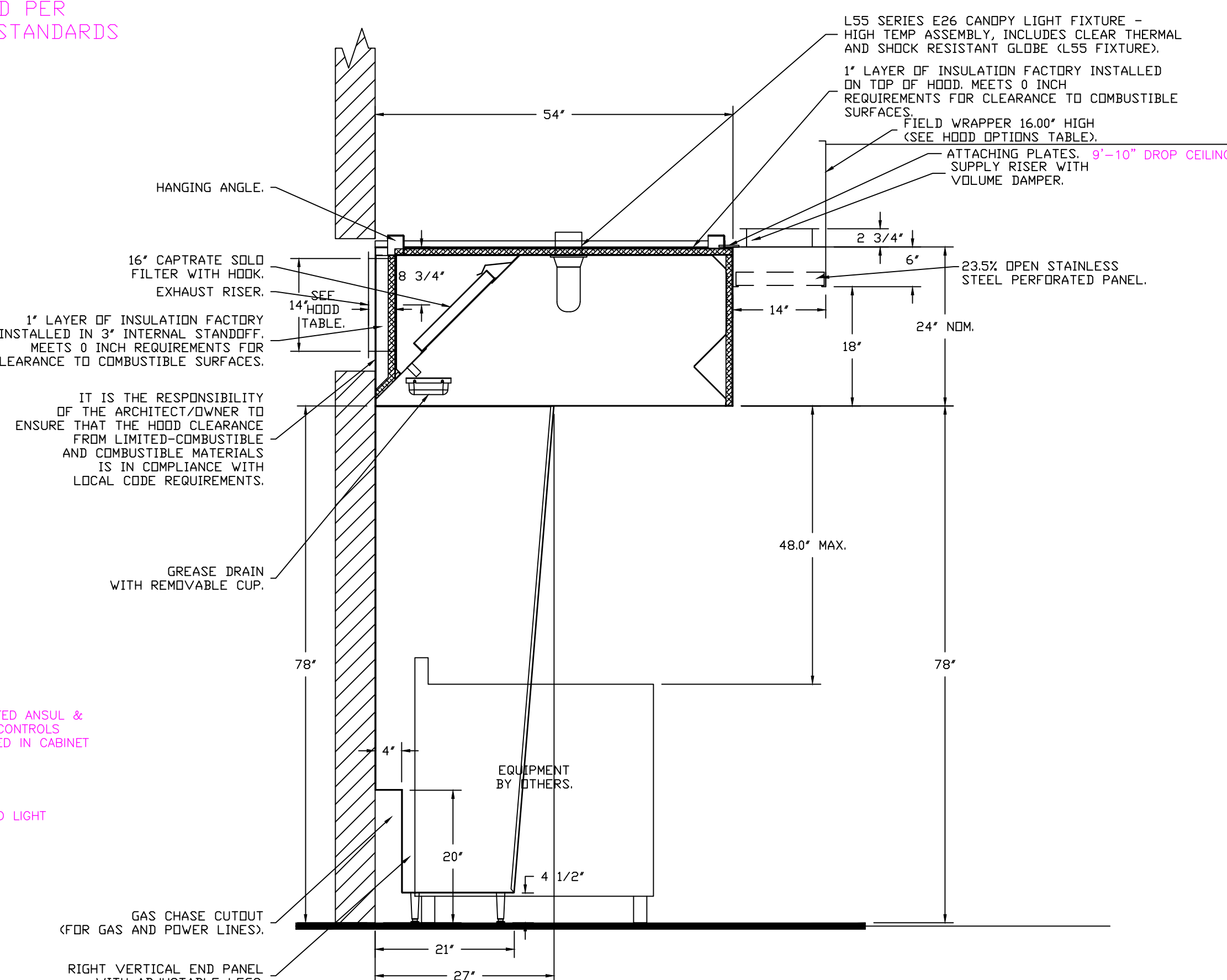
SECTION VIEW - MODEL 5424ND-2-PSP-F HOOD - #1 - 1 Rear Riser(s) (HD 1)

RISER	A (HEIGHT/DIAMETER)	B (VERTICAL DIMENSION)
1	14	7.500



PLAN VIEW - HOOD #1 (HD 1)
 9' 0.00" LONG 5424ND-2-PSP-F

PLAN VIEW - HOOD #2 (HD 2)
 10' 0.00" LONG 5424ND-2-PSP-F



SECTION VIEW - MODEL 5424ND-2-PSP-F HOOD - #2 - 1 Rear Riser(s) (HD 2)

RISER	A (HEIGHT/DIAMETER)	B (VERTICAL DIMENSION)
1	14	7.500

REVISIONS

NO.	DESCRIPTION	DATE



Covered Wagon RV1
 607 N Main St,
 Englewood, OH, 45322

DATE: 11/17/2020

DWG.#: 4548697

DRAWN BY: jcirilli

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

MASTER DRAWING

SHEET NO. 1

EXHAUST FAN INFORMATION - JOB#4548697

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	Ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF1	1	DUB5HFA	CAPTIVEAIRE	1800	1.150	1440	DDP	0.750	0.5220	3	208	2.6	570 FPM	100	17.5
2	KEF2	1	DUB5HFA	CAPTIVEAIRE	2000	1.070	1473	DDP	0.750	0.5580	3	208	2.6	633 FPM	100	18.1
4	EF2-DISH	1	DFA-300-CA	CAPTIVEAIRE	600	0.500	2353	GENERALPURPOSE	0.400	0.2940	1	115	2.5		16	21

MUA FAN INFORMATION - JOB#4548697

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	Ø	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
3	KSF 1	1	A2-D.250-20D	20MF-2-MDD	A2-D.250	2000	3040	0.500	1263	DDP,PREMIUM	1.500	1.1100	3	208	6.6	8.3A	15A	700	11.1

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	KSF 1	231427	212913	68°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF1	1	GREASE BOX.
		1	UPBLAST FAN WHEEL ACCESS PORT.
		1	FAN BASE CERAMIC SEAL - SHIP LOOSE - FOR GREASE DUCTS.
		1	REMOVE HINGE KIT LABEL FROM THE FAN BASE.
2	KEF2	1	WALL MOUNT CONSTRUCTION FOR FAN.
		1	GREASE BOX.
		1	UPBLAST FAN WHEEL ACCESS PORT.
		1	FAN BASE CERAMIC SEAL - SHIP LOOSE - FOR GREASE DUCTS.
3	KSF 1	1	REMOVE HINGE KIT LABEL FROM THE FAN BASE.
		1	WALL MOUNT CONSTRUCTION FOR FAN.
		1	MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING.
		1	LOW FIRE START.
4	EF2-DISH	1	INLET PRESSURE GAUGE, 0-35".
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" W.C.
		1	SIZE 2 TEMPERED COMMERCIAL UP DISCHARGE FOR DIRECT DRIVE AHUS.
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY.
4	EF2-DISH	1	SIZE 2 DIRECT FIRED HEATER LOW CFM PROFILE PACKAGE. USED ON HEATERS UNDER 2500 CFM.
		1	WALL CAP - ACCEPTS 12" ROUND DUCT.
4	EF2-DISH	1	FAN CONTROL - 3 AMP WHITE SPEED CONTROL FOR CFA CEILING FAN.

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST				SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT	
1	KEF1	YES							
2	KEF2	YES							
3	KSF 1						YES		
4	EF2-DISH								

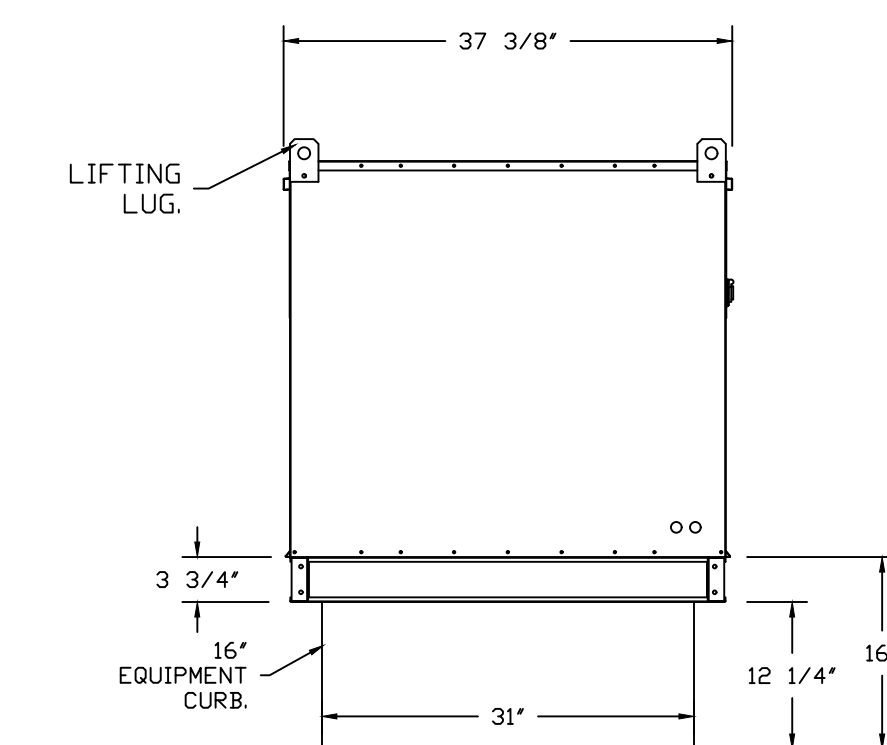
CURB ASSEMBLIES

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
3	# 3	KSF 1	76 LBS	CURB	31.000"W X 79.000"L X 16.000"H INSULATED.

FAN #3 A2-D.250-20D - HEATER (KSF 1)

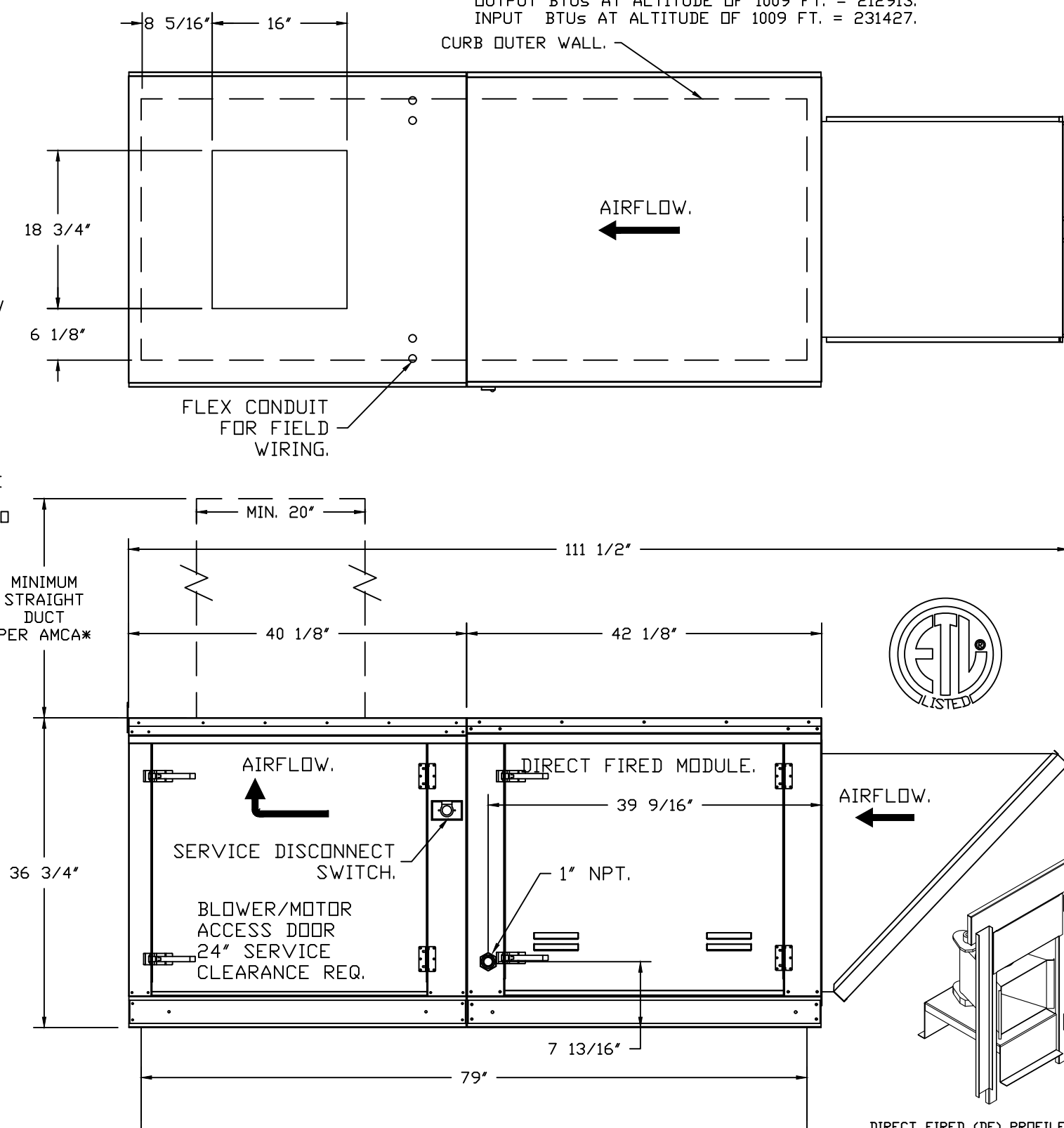
- DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" DIRECT DRIVE FAN.
- INTAKE HOOD WITH EZ FILTERS-LOW CFM.
- UP DISCHARGE - AIR FLOW RIGHT -> LEFT.
- MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED.
- LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
- GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
- GAS PRESSURE GAUGE, -5 TO +15 INCHES W.C., 2.5" DIAMETER, 1/4" THREAD SIZE.
- UP DISCHARGE CONSTRUCTION FOR DIRECT DRIVE AHUS.
- SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE 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.
- PROFILE PLATE CONFIGURATION FOR SIZE 2 DIRECT FIRED UNIT FOR LOW CFM APPLICATIONS.
- HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).

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 20" X 20".

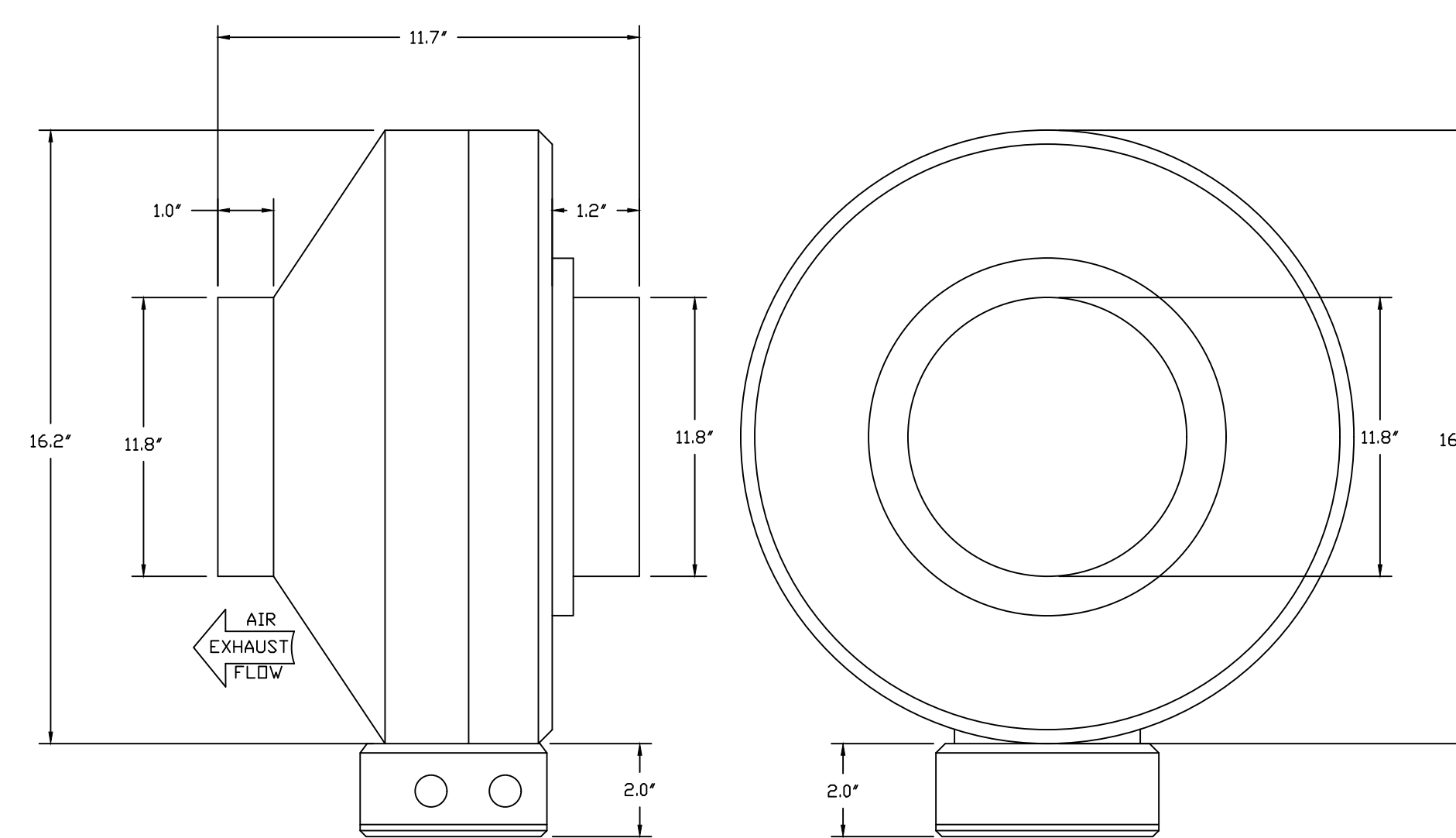


SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 7°F. TEMP. RISE = 68°F.
 BTUs CALCULATED OFF ACTUAL AIR DENSITY.
 OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 220847.
 INPUT BTUs AT ALTITUDE OF 0.0 FT. = 240051.
 OUTPUT BTUs AT ALTITUDE OF 1009 FT. = 212913.
 INPUT BTUs AT ALTITUDE OF 1009 FT. = 231427.



FAN #4 DFA-300-CA - EXHAUST FAN (EF2-DISH)



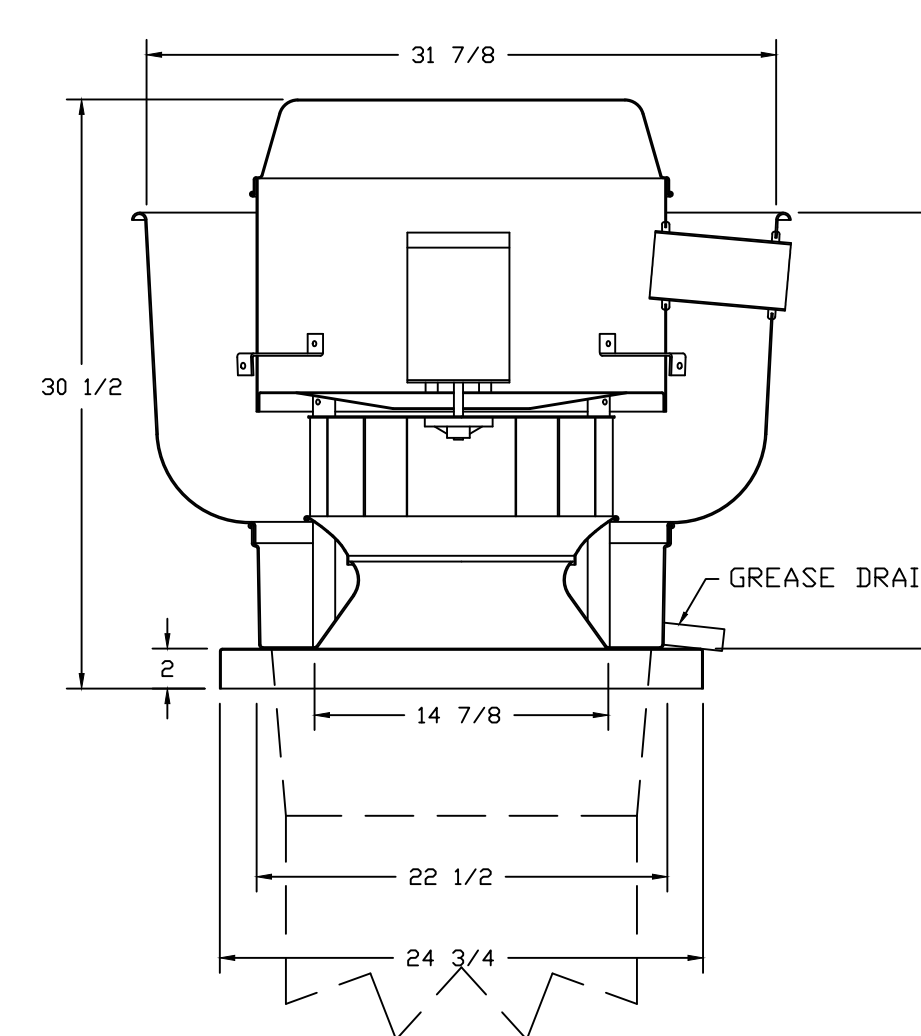
FEATURES:

- 20 GA. GALVANIZED STEEL HOUSING.
- STANDARD 4" - 12" ROUND DUCT CONNECTIONS.
- EASILY ACCESSIBLE J-BOX.
- UL507 LISTED.
- EXTREMELY QUIET OPERATION.

OPTIONS

- WALL CAP - ACCEPTS 12" ROUND DUCT.
- FAN CONTROL - 3 AMP WHITE SPEED CONTROL FOR CFA CEILING FAN.

FANS #1 (KEF1), #2 (KEF2) - DUB5HFA EXHAUST FAN



FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND UL-C-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.
- UPBLAST FAN WHEEL ACCESS PORT.
- FAN BASE CERAMIC SEAL - SHIP LOOSE - FOR GREASE DUCTS.
- REMOVE HINGE KIT LABEL FROM THE FAN BASE.
- WALL MOUNT CONSTRUCTION FOR FAN.

AIR BALANCE SCHEDULE

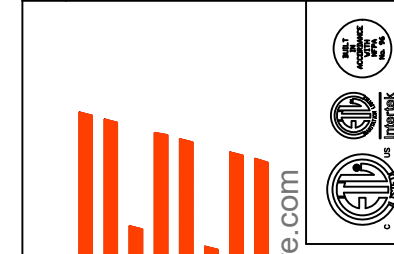
TAG	ROOMS SERVED	O.A. CFM	EXHAUST CFM
EF1 (HD1)	KITCHEN	-	- 1800
EF1 (HD2)	KITCHEN	-	- 2000
EF2 (DISH)	KITCHEN	-	- 600
KSF1	KITCHEN	-	-
HVAC	BUILDING	+ 3040 (MIN)	-
	NET	1360 CFM	

KITCHEN TO MAINTAIN A SLIGHTLY NEGATIVE PRESSURE. OVERALL BUILDING PRESSURE TO BE BETWEEN -0.02" TO +0.02" WC PER IMC COMMENTARY RECOMMENDATIONS

- Curbs to be Standing Seam CUSTOM systems. GC to provide manufacturer, model #, and pitch prior to fabrication.
- Any curbs support under Standing Seam curbs by GC or Structural trades.
- MUA to sit outside on concrete pad.

REVISIONS

DESCRIPTION	DATE



CAPTIVE AIR SOLUTIONS
 Air Solutions
 1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246
 PHONE: (513) 860-5555
 EMAIL: reg12@captivaire.com

Covered Wagon RV1
 607 N Main St,
 Englewood, OH, 45322

DATE: 11/17/2020

DWG.#: 4548697

DRAWN BY: jcirilli

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

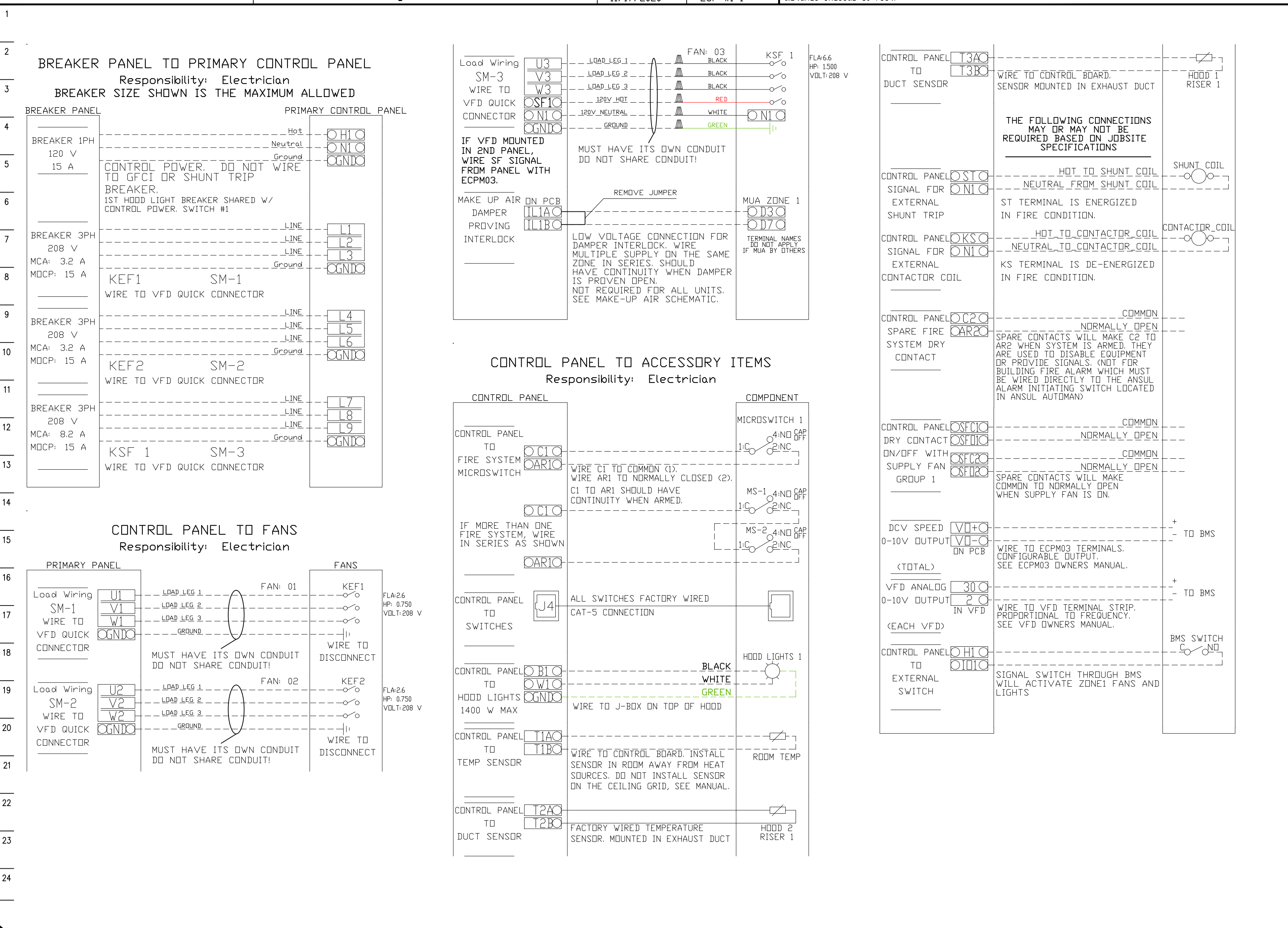
MASTER DRAWING

SHEET NO. 2

ELECTRICAL PACKAGE – JOB#4548697

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Φ	HP	VOLT	FLA
1	EP 1	DCV-2111	UTILITY CABINET RIGHT	04 – UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS DCV	KEF1	EXHAUST	3	0.750	208	2.6
				HOOD # 2	1 FAN		KEF2	EXHAUST	3	0.750	208	2.6
							KSF 1	SUPPLY	3	1.500	208	6.6

JOB NO 4548697	MODEL NUMBER DCV-2111	DRAWN BY INSTALL	SCHEMATIC TYPE INSTALL	DESCRIPTION OF OPERATION: Demand Control Ventilation, w/ control for 2 Exhaust Fans, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans module based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation. Verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 Feet.
	JOB NAME Covered Wagon RV1	DATE 11/17/2020	DWG NO ECP #1-1	



RESPONSIBILITY MATRIX

- A) REQUIREMENTS FOR FOOD SERVICE CONTRACTOR (F.E.C.)
- HOOD, FANS, & ALL ASSOCIATED EXHAUST & SUPPLY DUCTWORK IS PROVIDED & INSTALLED BY FOODSERVICE CONTRACTOR
 - HOOD SYSTEM TO BE STARTED UP BY CONTRACTOR
 - SMOKE TEST ON THE HOODS IN FRONT OF THE OWNER TO ENSURE SATISFACTION WITH COOKING EQUIPMENT ON.
 - HOOD INSTALLER TO START UP MUA HEATER OF MUA, THEN FILL OUT FACTORY STARTUP
 - ALL WALL STAINLESS FOR UNDER & AROUND HOODS SHALL BE INSTALLED ALSO.
 - ASSIST IN PROVIDING & SUBMITTING IN HOOD & ANSUL PERMIT DRAWINGS.
 - MOUNT FANS AS SHOWN ON DRAWINGS INCLUDING MUA.
 - INSTALLER TO ENSURE ALL HOOD AND FAN ACCESSORIES ARE INSTALLED SUCH AS GREASE CUPS, HINGE KITS, FILTER INTAKES, AND ANY OTHER MISC. ITEMS SHIPPED WITH THE PRODUCT.
 - INSTALL ALL LISTED GREASE DUCT FROM CAPTIVE-AIRE SPECIFICATIONS .
- B) NOTES (REQUIREMENTS) FOR ELECTRICIAN:
- FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (HOOD MOUNTED PANEL) 3 PHASE (208V) POWER FOR EXHAUST & SUPPLY FANS AND THEN FROM CAPTIVE AIRE PANEL TO THE DISCONNECT ON THE EXHAUST & MUA FANS. THE POWER MUST BE IN SEPARATE CONDUITS DUE TO THE VFD'S.
 - WIRE 120V, 1 PHASE FROM SF1/N1 OF HD PANEL TO MUA UNIT. ALSO WIRE A 18-3 GA WIRE FROM HOOD PANEL TO MUA UNIT IN CEILING.
 - FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (HOOD MOUNTED) 1 PHASE, 120, 20 AMP CIRCUIT TO BE USED FOR LIGHTS & CONTROLS CIRCUITRY. THE LIGHTS ARE ALREADY CONNECTED TO CONTROL PANEL.
 - VERIFY THAT THE WIRE RED/BROWN WIRES ON ANSUL CABINET TO CAPTIVE-AIRES CONTROL PANEL C1 & AR1 TERMINALS.
 - FIELD WIRE THE DUCT SENSORS LOCATED IN EXHAUST COLLARS TO CAPTIVE AIRE CABINET. CAPTIVE AIRE SUPPLIES THE WHITE STAT WIRE & SHIPPED IN CABINET
 - FIELD WIRE & INSTALL ROOM SENSOR SUPPLIED BY CAPTIVE AIRE. MOUNT SENSOR 6' AWAY FROM HOOD UP HIGH. STAT WIRE PROVIDED BY CAPTIVE AIRE.
 - FIELD WIRE THE BUILDING ALARM SYSTEM (IF APPLICABLE) INTO THE ANSUL MICRO SWITCH LOCATED AT THE RIGHT END OF THE HOOD. IF NO BUILDING ALARM, INSTALL THE CAPTIVE AIRE SUPPLIED 120V HORN/LIGHT STROBE & WIRE TO ANSUL PANEL.
 - ELECTRICIAN MUST CHECK FAN ROTATION BY LOOKING AT YELLOW ARROWS MARKED ON FANS. IF ROTATION IS WRONG, REVERSE ANY 2 OF THE 3 PHASE LEADS ON THE LOAD SIDE.
 - IF ANY ELECTRIC UNDER HOOD, BREAKER MUST BE OF SHUNT TRIP TYPE & ELECTRICIAN TO WIRE FROM ST & N1 TERMINALS OF HOOD PANEL TO SHUNT TRIP DEVICE BY OTHERS.
 - ELECTRICIAN TO SUPPLY 120V/1φ TO WALL SWITCH & THEN TO INLINE FAN FOR DISHWASHER.
- C) FIELD NOTES (OTHER TRADES)
- SITE PLUMBER TO INSTALL THE CAPTIVE-AIRE PROVIDED ANSUL GAS VALVE FOR EACH SYSTEM. PLUMBER TO FIELD INSTALL GAS VALVE INLINE WITH THE GAS PIPING GOING TO THE COOKING EQUIPMENT OF THE SYSTEM. PLUMBER TO COORDINATE WITH THE F.E.C. FOR ALL HOOK UP OF GAS COOKING EQUIPMENT & ENSURE ALL GAS IS VENTED ONCE HOOKED UP. USE GAS REGULATORS TO MAINTAIN 7-14" OF GAS PRESSURE.
 - PLUMBER TO SUPPLY & INSTALL GAS LINE TO MUA ON ROOF.
- D) GENERAL CONTRACTOR (GS) RESPONSIBILITIES:
- GC IS RESPONSIBLE TO HOLD A COORDINATION MEETING WITH ALL TRADES TO ENSURE UNDERSTANDING OF REQUIREMENTS AND MAKE SURE THERE ARE NO CONFLICTS THROUGHOUT THE PROJECT & ASSIST AS REQUIRED
 - GC IS RESPONSIBLE FOR ANY BUILDING CONSTRUCTION CHANGES OR STRUCTURAL REQUIREMENTS TO INCLUDE BUT NOT LIMITED TO: HOOD WALL READY TO ACCEPT WALL STAINLESS & HOOD, ANY REQUIREMENTS TO HEAD OFF JOIST FOR DUCT ROUTING, ANY STRUCTURAL SUPPORTS REQUIRED TO SHORE UP BUILDING OR STRUCTURE, AND ANY FINISHED CEILING WORK, CEILING WORK, DEMO, OR COSMETIC & PATCHING WORK.
 - PROVIDE A WORKING CONSTRUCTION SCHEDULE TO ALL TRADES.
 - GC TO ENSURE STEEL/STRUCTURAL REQUIREMENTS FOR CURBS & HOODS TO BE DONE BY ROOFER/STRUCTURAL TRADES.

GREASE DUCT SPECIFICATION – SINGLE WALL

FURNISH SINGLE-WALL, FACTORY BUILT, GREASE DUCT FOR USE WITH TYPE I KITCHEN HOODS, WHICH CONFORMS TO THE REQUIREMENTS OF NFPA-96.

PRODUCTS SHALL BE ETL LISTED TO UL-1978 FOR VENTING AIR AND GREASE VAPORS FROM COMMERCIAL COOKING OPERATIONS AS DESCRIBED IN NFPA-96.

THE DUCT WALL SHALL BE CONSTRUCTED OF .036 THICK TYPE 430 STAINLESS STEEL AND BE AVAILABLE IN DIAMETERS 8" THROUGH 24". ALL SUPPORTS, FAN ADAPTERS, HOOD CONNECTIONS, FITTINGS AND EXPANSION JOINTS REQUIRED TO INSTALL GREASE DUCT SHALL BE INCLUDED. ROOF PENETRATIONS SHALL COMPLY WITH LISTED CLEARANCE TO COMBUSTIBLES, SEE "CLEARANCE TO COMBUSTIBLES" GUIDE FOR DETAILS. THE GREASE DUCT WILL TERMINATE AT THE FAN ADAPTER PLATE, WILL BE FULLY WELDED TO THE FAN ADAPTER PLATE AND THE FAN ADAPTER PLATE WILL BE FASTENED TO THE CURB USING A SUITABLY SIZED FASTENER PROVIDED BY OTHERS; SEE PAGE 12 OF THE "INSTALLATION, OPERATION AND MAINTENANCE MANUAL" FOR DETAILS.

GREASE DUCT JOINTS SHALL BE HELD TOGETHER BY MEANS OF FORMED VEE CLAMPS AND SEALED WITH 3M FIRE BARRIER 2000+. SCREWS USED TO SECURE THE VEE CLAMPS SHALL BE OF THE HEX-HEAD TYPE WITH FLANGED STOPS AND TAPERED "LEAD IN" THREADS FOR EASY STARTING. NUTS SHALL BE RETAINED BY MEANS OF A FREE-FLOATING CAGE TO ALLOW EASY ALIGNMENT.

SINGLE-WALL GREASE DUCT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S "INSTALLATION, OPERATION AND MAINTENANCE MANUAL", ETL LISTING AND STATE AND LOCAL CODES.

GREASE DUCT INSTALLED OUTSIDE OF THE BUILDING SHALL BE PROTECTED AGAINST ACCIDENTAL DAMAGE OR VANDALISM. SUPPORT VERTICALLY INSTALLED GREASE DUCT FROM THE BUILDING STRUCTURE USING RIGID STRUCTURAL SUPPORTS. ANCHOR SUPPORTS TO THE STRUCTURE BY WELDING OR BOLTING STEEL EXPANSION ANCHORS OR CONCRETE INSERTS. SUPPORT HORIZONTALLY INSTALLED GREASE DUCT FROM THE BUILDING STRUCTURE USING ABOVE METHOD OR USE DUCT MATE, WIRE ROPE & CLUTCHERS, PART NUMBERS WR20 & CL20. 1/2" THREADED ROD AND SADDLES MAY ALSO BE USED FOR THE SUPPORT OF HORIZONTAL GREASE DUCT.

FANS SHALL BE SUPPORTED INDEPENDENTLY FROM THE GREASE DUCT SECTIONS. PROTECT GREASE DUCT FROM TWISTING OR MOVEMENT CAUSED BY FAN TORQUE OR VIBRATION.

REVISIONS

DESCRIPTION	DATE

CAPTIVE AIRE
Air Solutions
www.captiveaire.com

Covered Wagon RV1
607 N Main St,
Englewood, OH, 45322

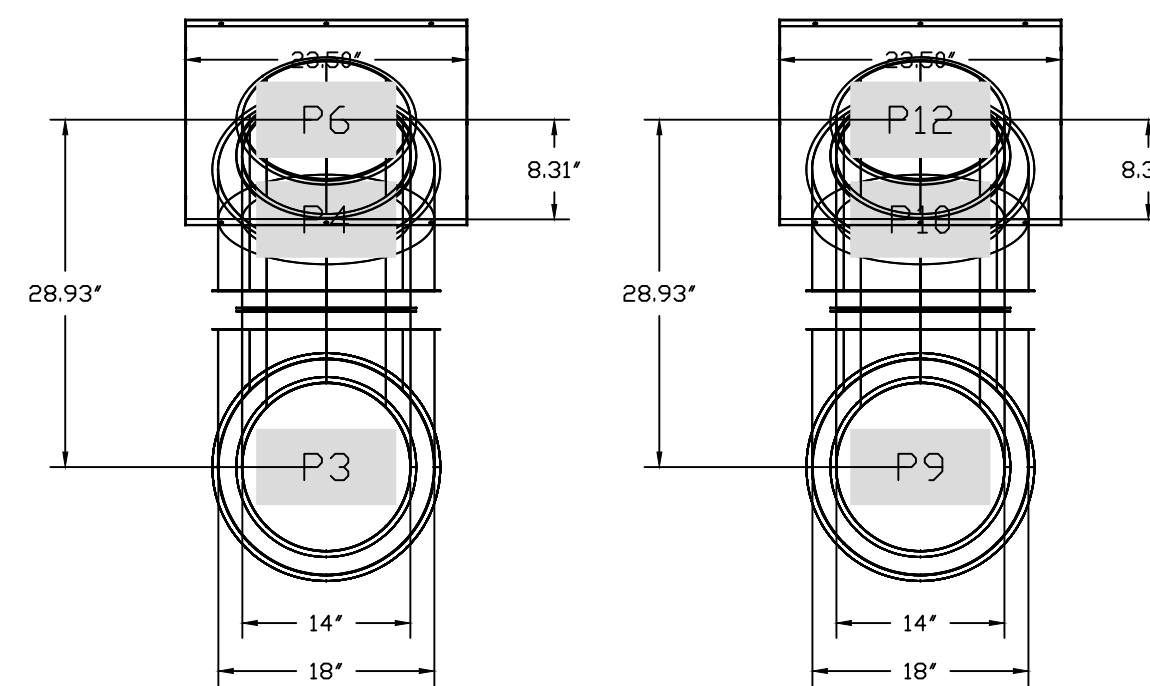
DATE: 11/17/2020
DWG.#: 4548697
DRAWN BY: jcirilli
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
3

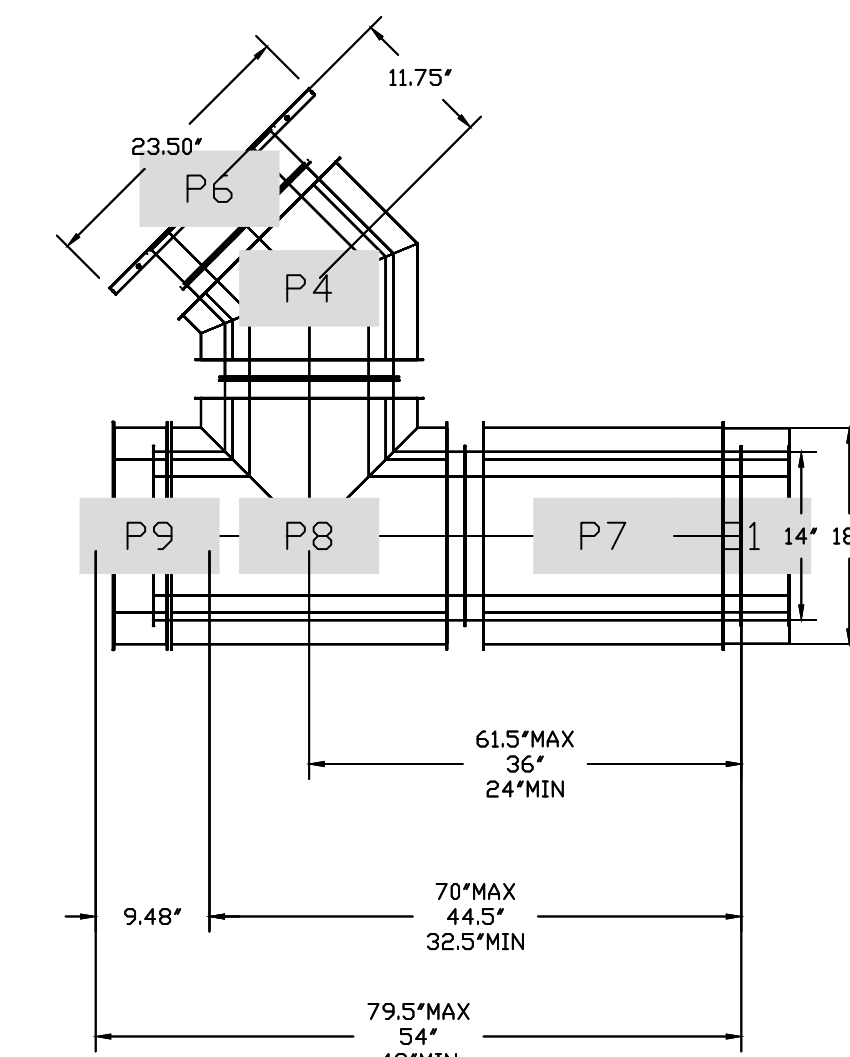
DUCTWORK #1 PARTS - JOB#4548697 DOUBLE WALL DR1-2

TAG	PART #	CFM	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1447DWAJD-2R-S	1800	-0.01	93.18	1683.79	1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" 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.
P2 [SEALED] ASSEMBLED W/P3	DW14DWTEASY-2R-S	1800	-0.1053	41.37	1683.79	1	DOUBLE WALL DUCT - 14" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P3 [SEALED] ASSEMBLED W/P2 D=S	DW14DWACDDORCOV-2R-S			22.25		1	DOUBLE WALL DUCT - 14" INNER ACCESS DOOR & 18" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P4 [SEALED]	DW1445DWASY-2R-S	1800	-0.108	19.87	1683.79	1	DOUBLE WALL DUCT - 14" INNER 45 DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P5 [SEALED] ASSEMBLED W/P6	DW1404LT	1800	-0.002	2.25	1683.79	1	SINGLE WALL DUCT 14" DIAMETER, 4' LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P6 ASSEMBLED W/P5	DW2314TPDBEX	1800		8.00	1683.79	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 14" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
SYSTEM AT P6			-1.1133	0.00			
P7	DW1447DWAJD-2R-S	2000	-0.012	93.18	1870.88	1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" 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.
P8 [SEALED] ASSEMBLED W/P9	DW14DWTEASY-2R-S	2000	-0.13	41.37	1870.88	1	DOUBLE WALL DUCT - 14" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P9 [SEALED] ASSEMBLED W/P8 D=S	DW14DWACDDORCOV-2R-S			22.25		1	DOUBLE WALL DUCT - 14" INNER ACCESS DOOR & 18" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P10 [SEALED]	DW1445DWASY-2R-S	2000	-0.1328	19.87	1870.88	1	DOUBLE WALL DUCT - 14" INNER 45 DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P11 [SEALED] ASSEMBLED W/P12	DW1404LT	2000	-0.002	2.25	1870.88	1	SINGLE WALL DUCT 14" DIAMETER, 4' LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P12 ASSEMBLED W/P11	DW2314TPDBEX	2000		8.00	1870.88	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 23" CURB TO 14" DUCT, 16 GA ALUMINIZED. USED ON NCA14FA & NCA14HPFA. TRANSITION PLATE DD IS 23.5" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
SYSTEM AT P12			-1.3448	0.00			
	3M-2000PLUS			0.80		3	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW14CLASY			1.06		2	DUCT "V" CLAMP WITH NEW DESIGN 14 GA BRACKETS, 14" DUCT, ASSEMBLY.
	DW14DWCLASY-2R-S			7.21		2	DUCT - 14" DUCT - 18" DOUBLE "V" CLAMP - 2R INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
	DW14DWECASY-2			2.86		2	DOUBLE WALL DUCT END CAP ASSEMBLY - 14" DUCT 2 LAYERS 19" OD - INCLUDES DW18CLASY - USED TO SEAL DOUBLE WALL WHEN CONNECTING TO SINGLE WALL DUCT.
	SEALDUCTEXT			0.01		6	SEAL DUCT EXTERIOR - 3M FIRE BARRIER 2000 PLUS IS USED TO SEAL THE EXTERIOR OF THE DOUBLE WALL DUCT. SEALDUCTEXT QUANTITY SHOULD BE PER QUANTITY OF PARTS THAT NEED TO BE SEALED. DOUBLE V CLAMP WILL NEED TO BE SEALED IN THE FIELD ORDER 3M FIRE BARRIER 2000 PLUS SEPARATE.
TOTAL WEIGHT				398.56			

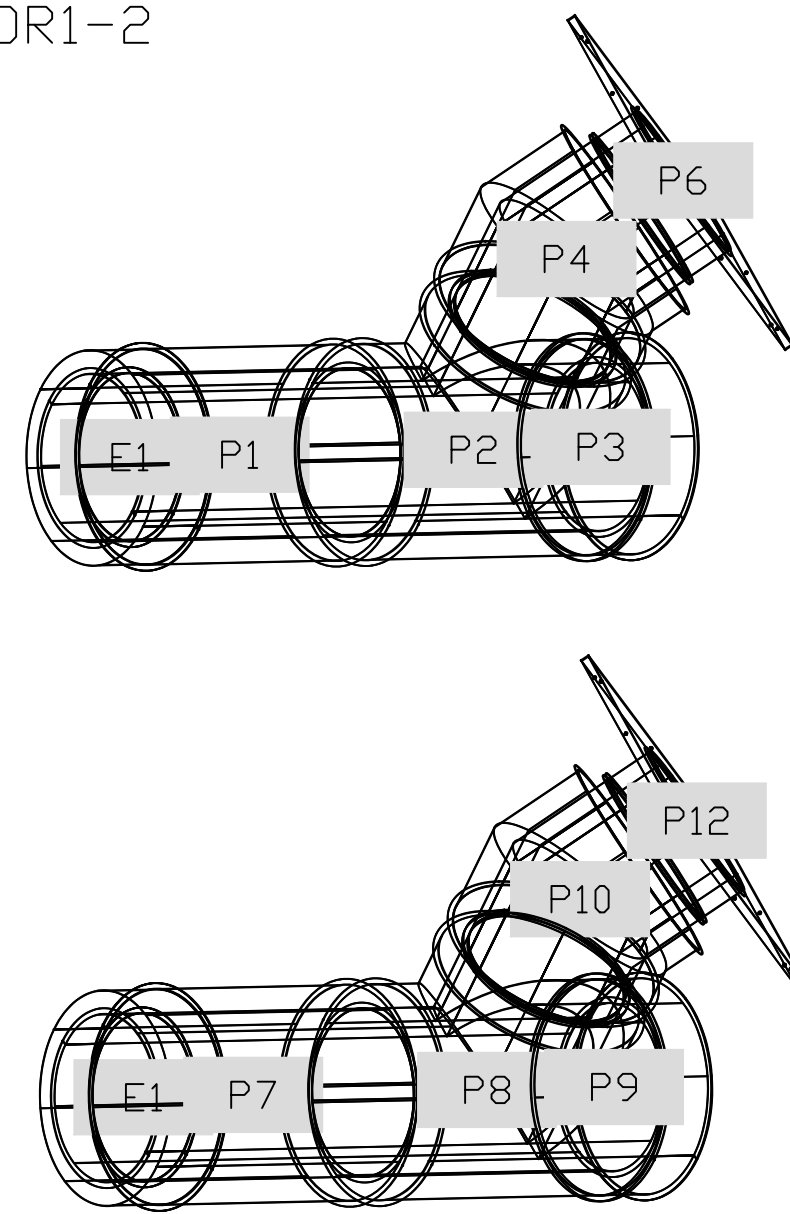
DUCTWORK #1 FRONT VIEW DR1-2



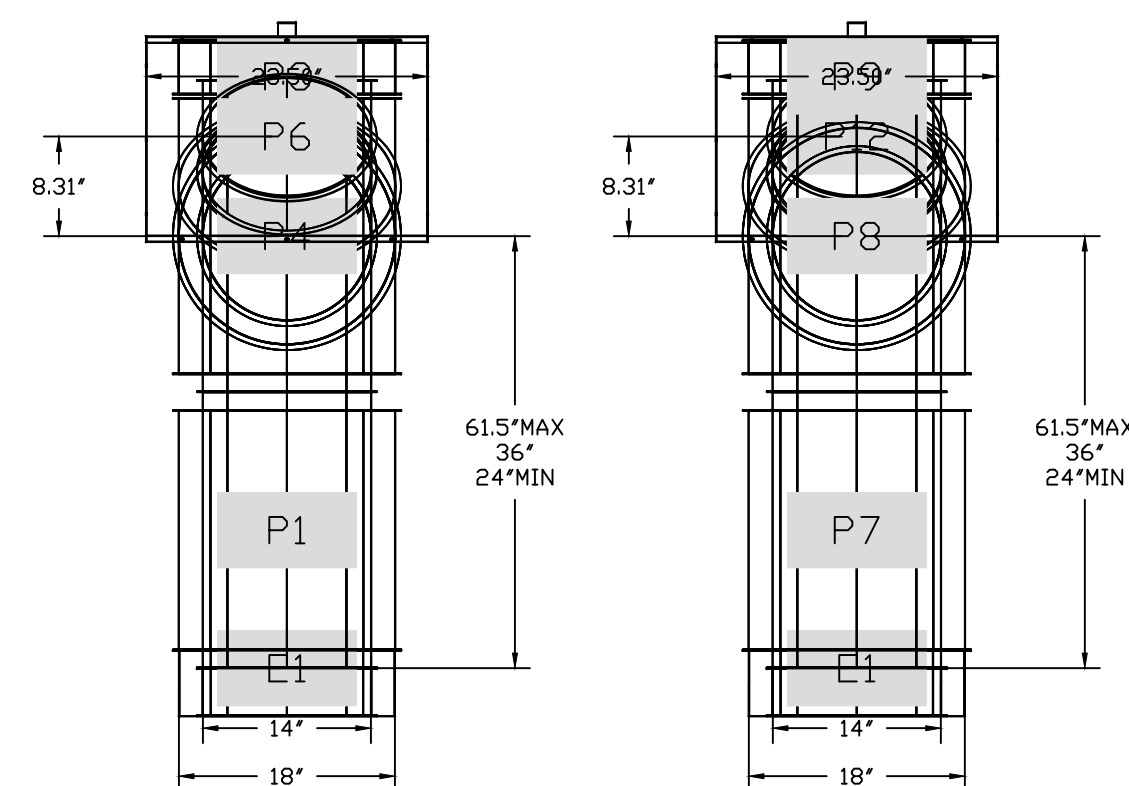
DUCTWORK #1 SIDE VIEW DR1-2



DUCTWORK #1 SE VIEW DR1-2



DUCTWORK #1 TOP VIEW DR1-2



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'

REVISIONS

DESCRIPTION	DATE

Covered Wagon RV1
607 N Main St,
Englewood, OH, 45322

DATE: 11/17/2020
DWG.#: 4548697
DRAWN BY: jcirilli

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