

HOOD INFORMATION - JOB#4879395

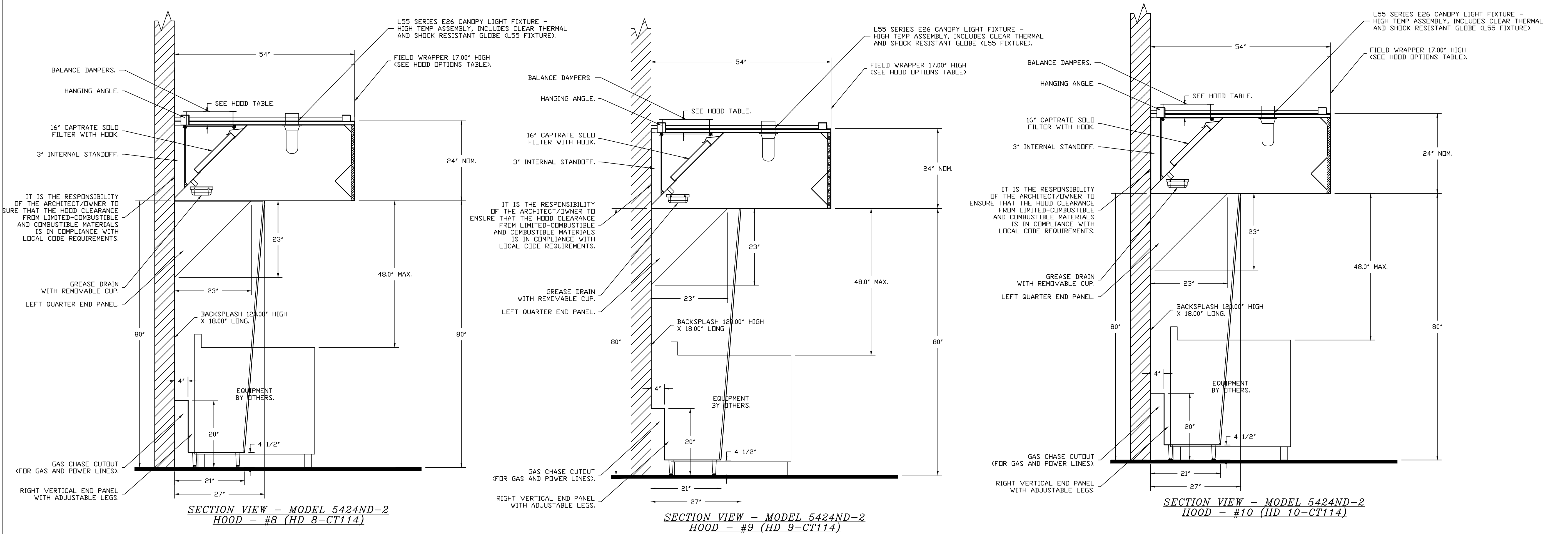
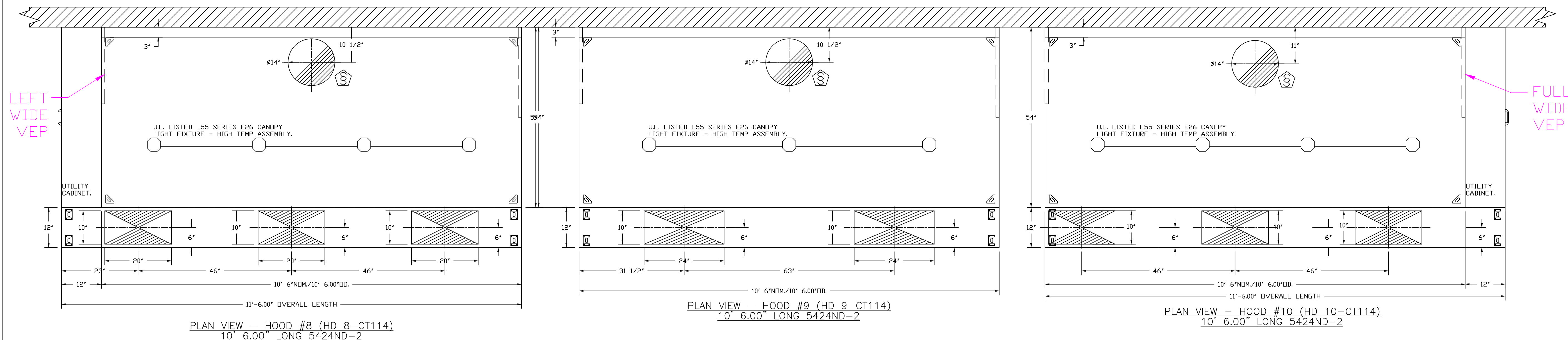
HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISERS			TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG			
										WIDTH	LENG	HEIGHT			END TO END	ROW		
8	HD 8-CT114	5424 ND-2	CAPTIVEAIRE	10' 6"	600 DEG	I	HEAVY	175	1838	4"	14"	1838	1719	-0.902"	0	430 SS WHERE EXPOSED	ALONE	ALONE
9	HD 9-CT114	5424 ND-2	CAPTIVEAIRE	10' 6"	600 DEG	I	HEAVY	175	1838	4"	14"	1838	1719	-0.902"	0	430 SS WHERE EXPOSED	ALONE	ALONE
10	HD 10-CT114	5424 ND-2	CAPTIVEAIRE	10' 6"	600 DEG	I	HEAVY	175	1838	4"	14"	1838	1719	-0.902"	0	430 SS WHERE EXPOSED	ALONE	ALONE

OPEN KITCHEN COOKLINE 2

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



REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE

Air Solutions

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

6888 KITCHEN Rv2-Arcade

42 S Ludlow St,
Dayton, OH, 45402

DATE: 6/23/2022

DWG.#: 4879395

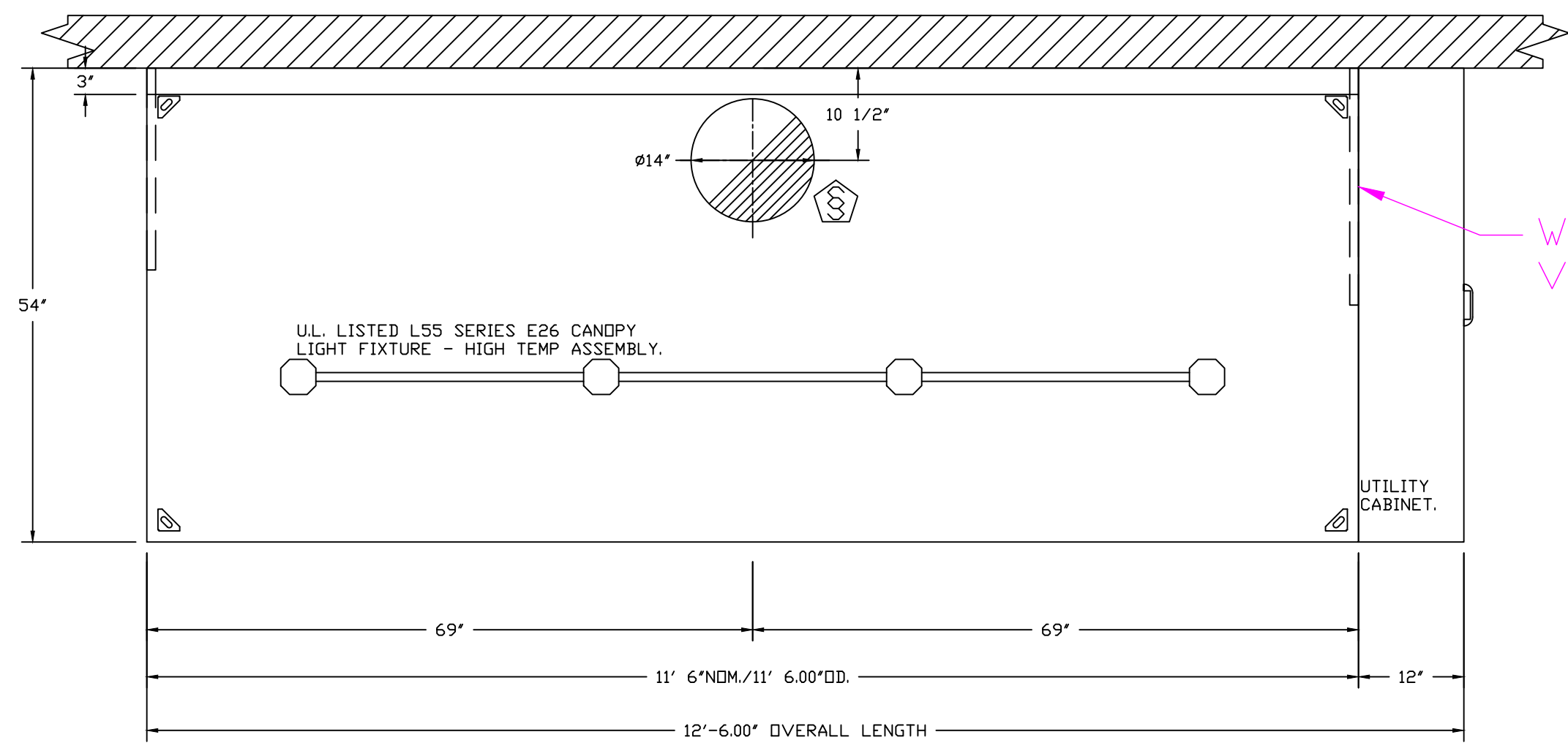
DRAWN BY: jcirilli

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

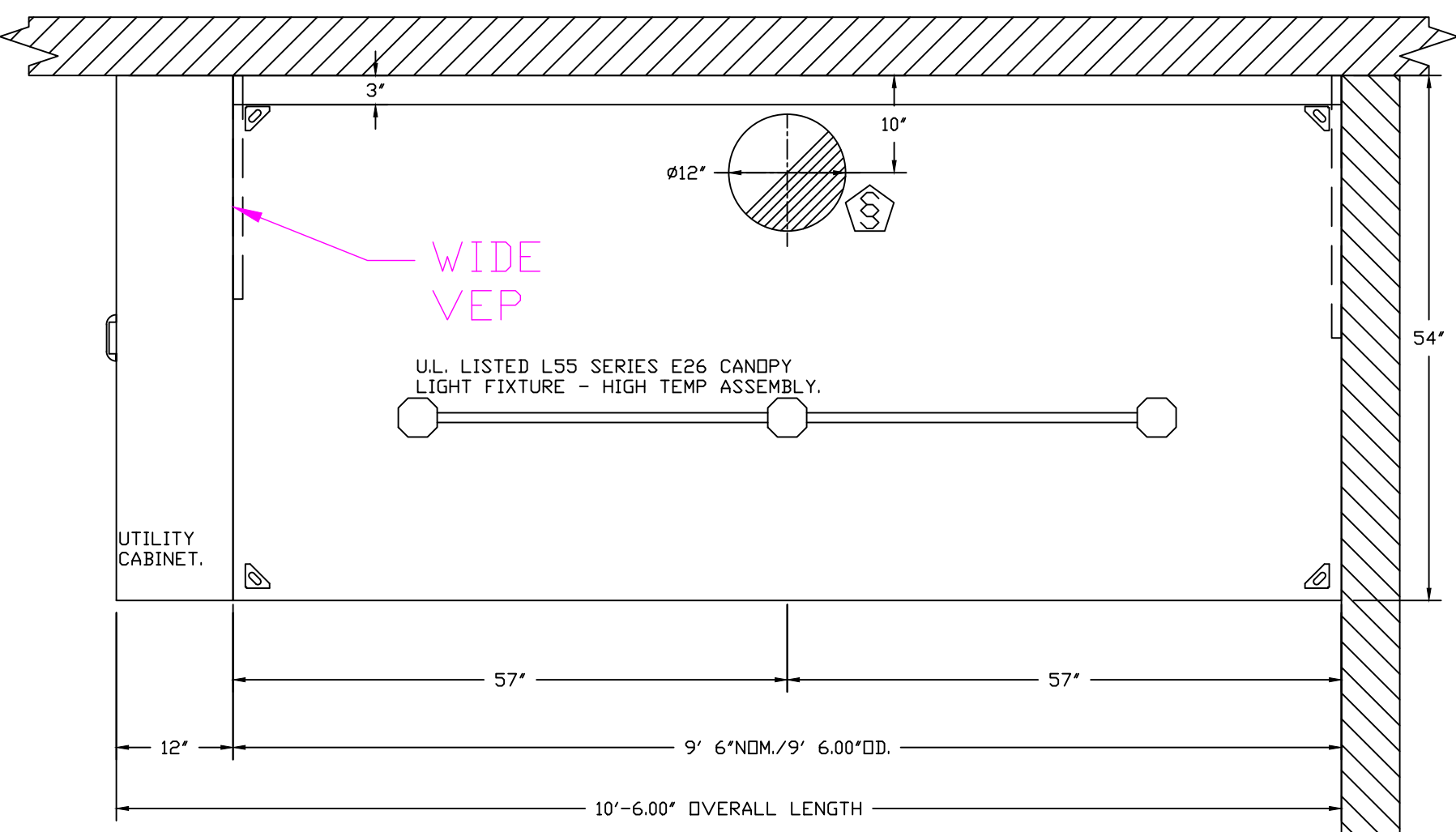
MASTER DRAWING

SHEET NO. 2

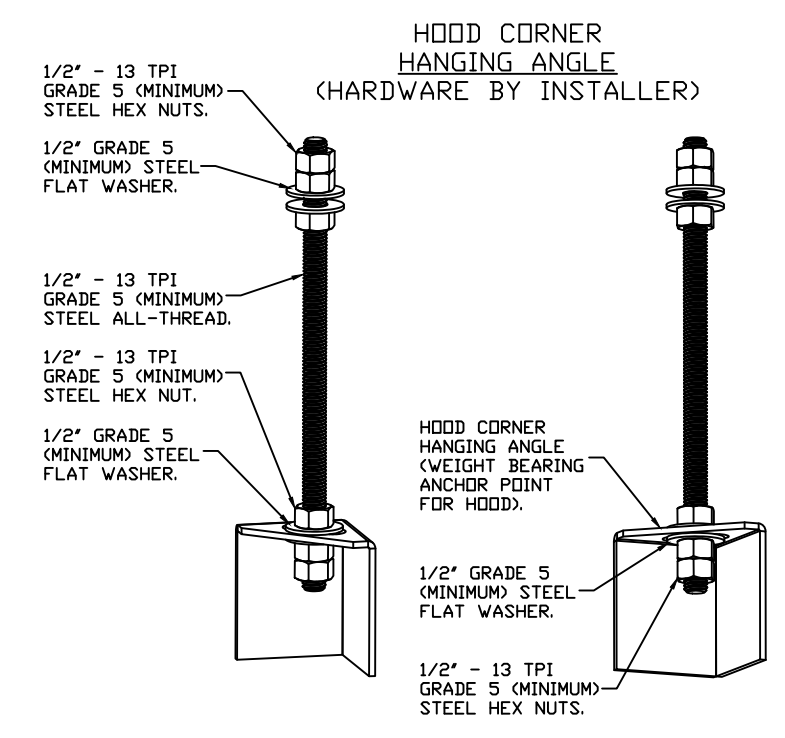
VARIOUS PODS



PLAN VIEW - HOOD #1 (HD 1-CT113)
11' 6.00" LONG 5424ND-2
(10'8" EQUIP)



PLAN VIEW - HOOD #4 (HD4-CT109)
9' 6.00" LONG 5424ND-2
(9' EQUIP)

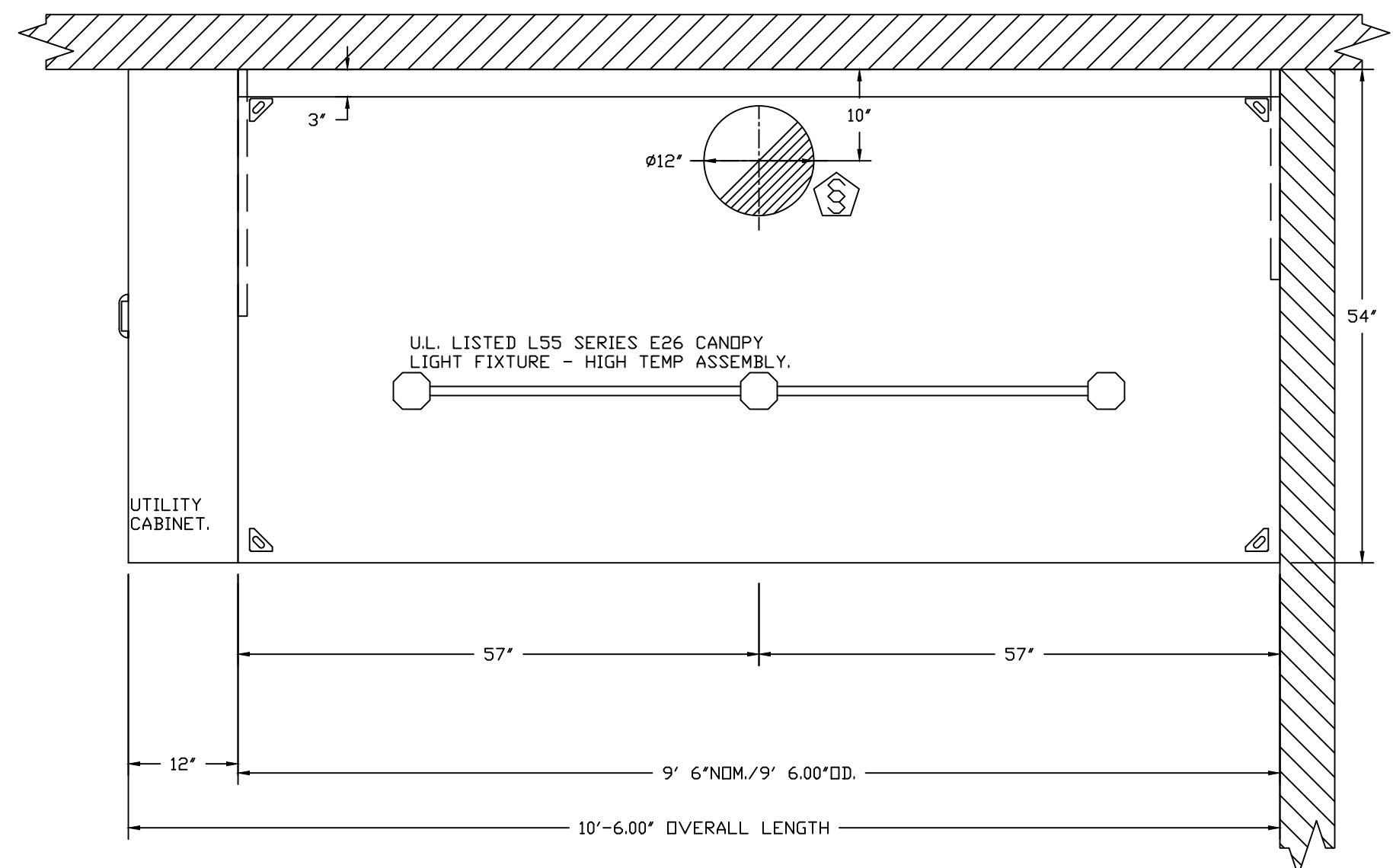


ASSEMBLY INSTRUCTIONS

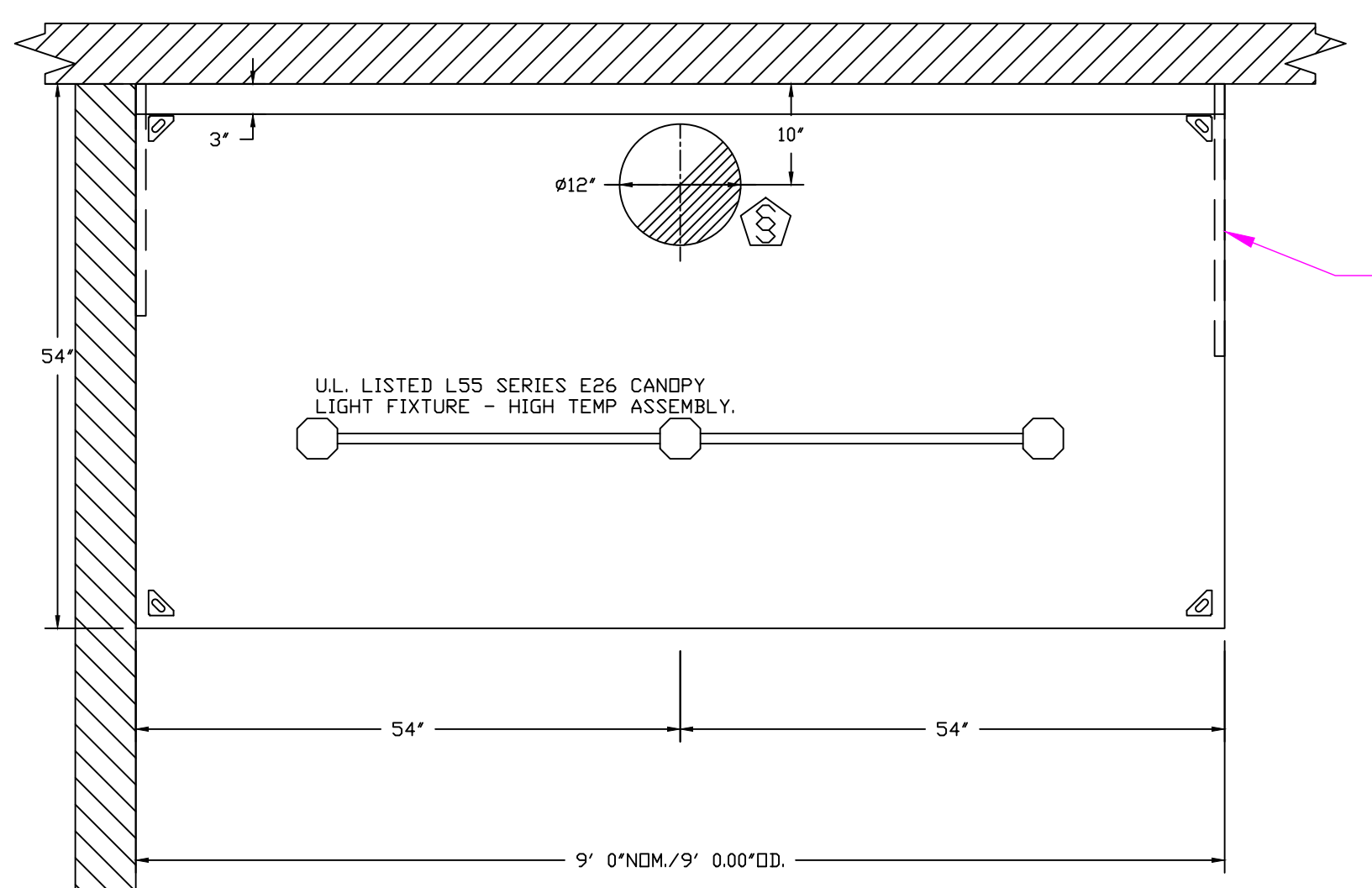
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND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

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

HOOD'S 1,2 ARE SERVED BY (1) EXHAUST FAN.
HOOD'S 3 & 4 ARE SERVED BY A DIFFERENT EXHAUST FAN.
THE FANS ARE LOCATED ON THE UPPER ROOF.
THE EXHAUST DUCT GOES THROUGH LOWER ROOF WELL AND THEN UP THE SIDE OF THE BUILDING, ALL THE WAY UP AND 10 FEET TO THE EDGE OF ROOF.
THE MAKE-UP-AIR AND CONDITIONING OF SPACE IS DONE BY A NEW CAPTIVE-AIRE DOAS-RTU UNIT AND AN EXISTING DOAS-ERV UNIT PROVIDED BY LANDLORD.



PLAN VIEW - HOOD #3 (HD3-CT111)
9' 6.00" LONG 5424ND-2
(8'8" EQUIP)



PLAN VIEW - HOOD #2 (HD2-CT110)
9' 0.00" LONG 5424ND-2
(8'4" EQUIP)

TOTAL EXHAUST= 19,163 CFM
DOAS 1= +5,700 CFM
DOAS 2= +5,700 CFM
DOAS 3= +3,500 CFM
MUA= +4,300 CFM

HOOD INFORMATION - JOB#4879395

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-CT113	5424 ND-2	CAPTIVEAIRE	11' 6"	600 DEG	I	HEAVY	175	2012			4"	14"	2012	1882	-1.042'	0	430 SS WHERE EXPOSED	ALONE	ALONE
2	HD2-CT110	5424 ND-2	CAPTIVEAIRE	9' 0"	600 DEG	I	HEAVY	175	1575			4"	12"	1575	2005	-0.980'	0	430 SS WHERE EXPOSED	ALONE	ALONE
3	HD3-CT111	5424 ND-2	CAPTIVEAIRE	9' 6"	600 DEG	I	HEAVY	175	1662			4"	12"	1662	2116	-1.090'	0	430 SS WHERE EXPOSED	ALONE	ALONE
4	HD4-CT109	5424 ND-2	CAPTIVEAIRE	9' 6"	600 DEG	I	HEAVY	175	1662			4"	12"	1662	2116	-1.090'	0	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	HD 1-CT113	FIELD WRAPPER 17.00' HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00' HIGH X 150.00' LONG 430 SS VERTICAL.
		BACKSPLASH 120.00' HIGH X 13.00' LONG 430 SS VERTICAL.
		BACKSPLASH 120.00' HIGH X 18.00' LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
2	HD2-CT110	RIGHT VERTICAL END PANEL 27' TOP WIDTH, 21' BOTTOM WIDTH, 80' HIGH INSULATED 430 SS.
		SENSOR-CV.
		FIELD WRAPPER 17.00' HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00' HIGH X 108.00' LONG 430 SS VERTICAL.
		BACKSPLASH 120.00' HIGH X 54.00' LONG 430 SS VERTICAL.
3	HD3-CT111	BACKSPLASH 120.00' HIGH X 54.00' LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.
		RIGHT VERTICAL END PANEL 27' TOP WIDTH, 21' BOTTOM WIDTH, 80' HIGH INSULATED 430 SS.
		SENSOR-CV.
		FIELD WRAPPER 17.00' HIGH FRONT, LEFT, RIGHT.
4	HD4-CT109	BACKSPLASH 80.00' HIGH X 126.00' LONG 430 SS VERTICAL.
		RIGHT SIDESPLASH 80.00' HIGH X 54.00' LONG 430 SS VERTICAL.
		RIGHT SIDESPLASH 120.00' HIGH X 18.00' LONG 430 SS VERTICAL.
		RIGHT SIDESPLASH 120.00' HIGH X 18.00' LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23' TOP WIDTH, 0' BOTTOM WIDTH, 23' HIGH 430 SS.

REVISIONS

DESCRIPTION	DATE

www.captiveaire.com

1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg1212@captiveaire.com

6888 KITCHEN Rv2-Arcade

42 S Ludlow St,
Dayton, OH, 45402

DATE: 6/23/2022

DWG.#: 4879395

DRAWN BY: jcirilli

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

MASTER DRAWING

SHEET NO. 3

VARIOUS PODS

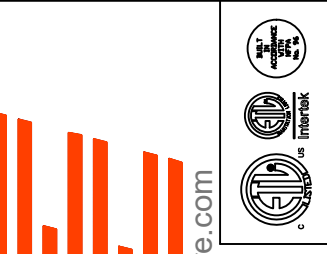
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ETL LISTED FILE# 3054804-001

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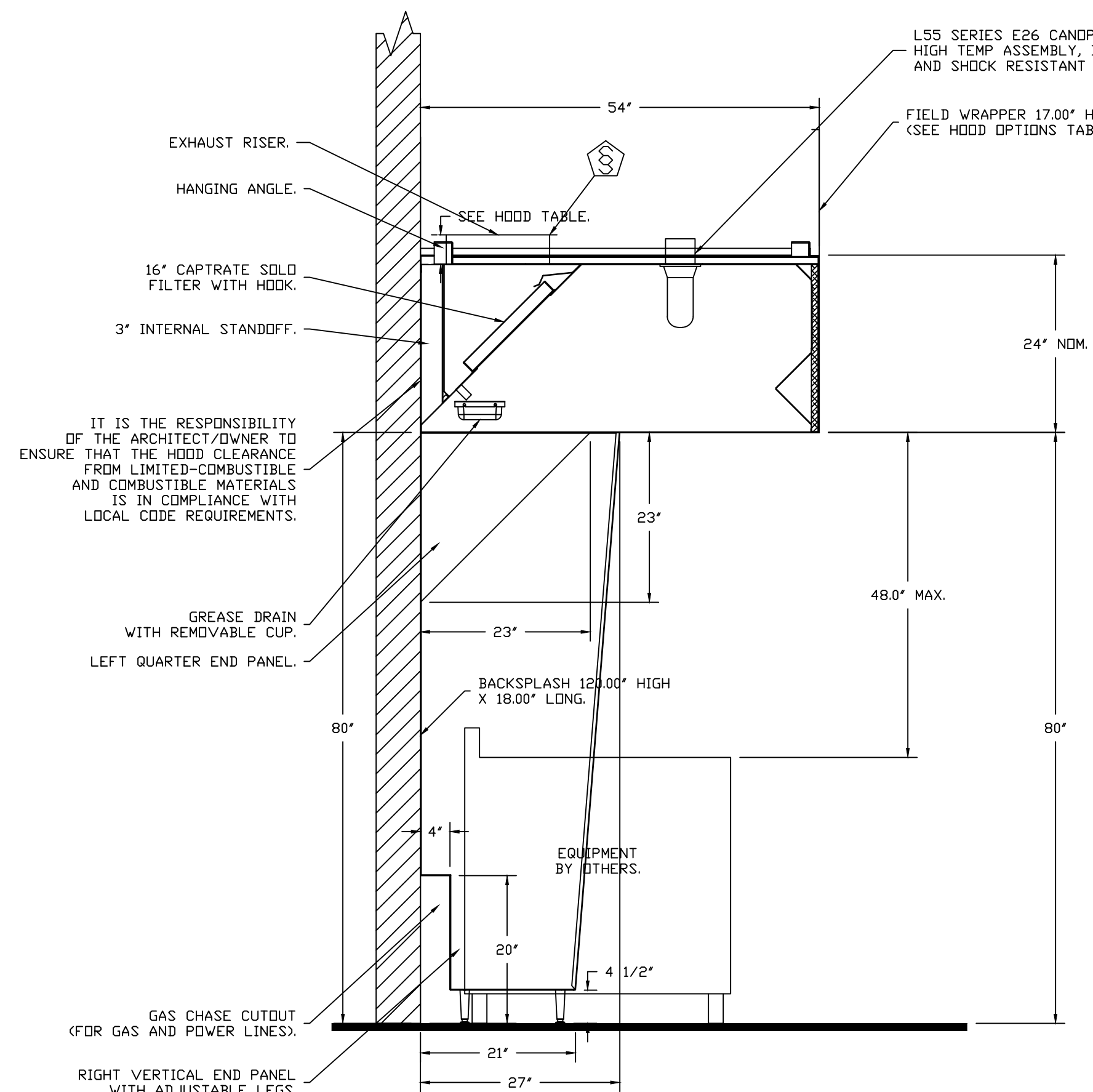


CAPTIVE-AIRE

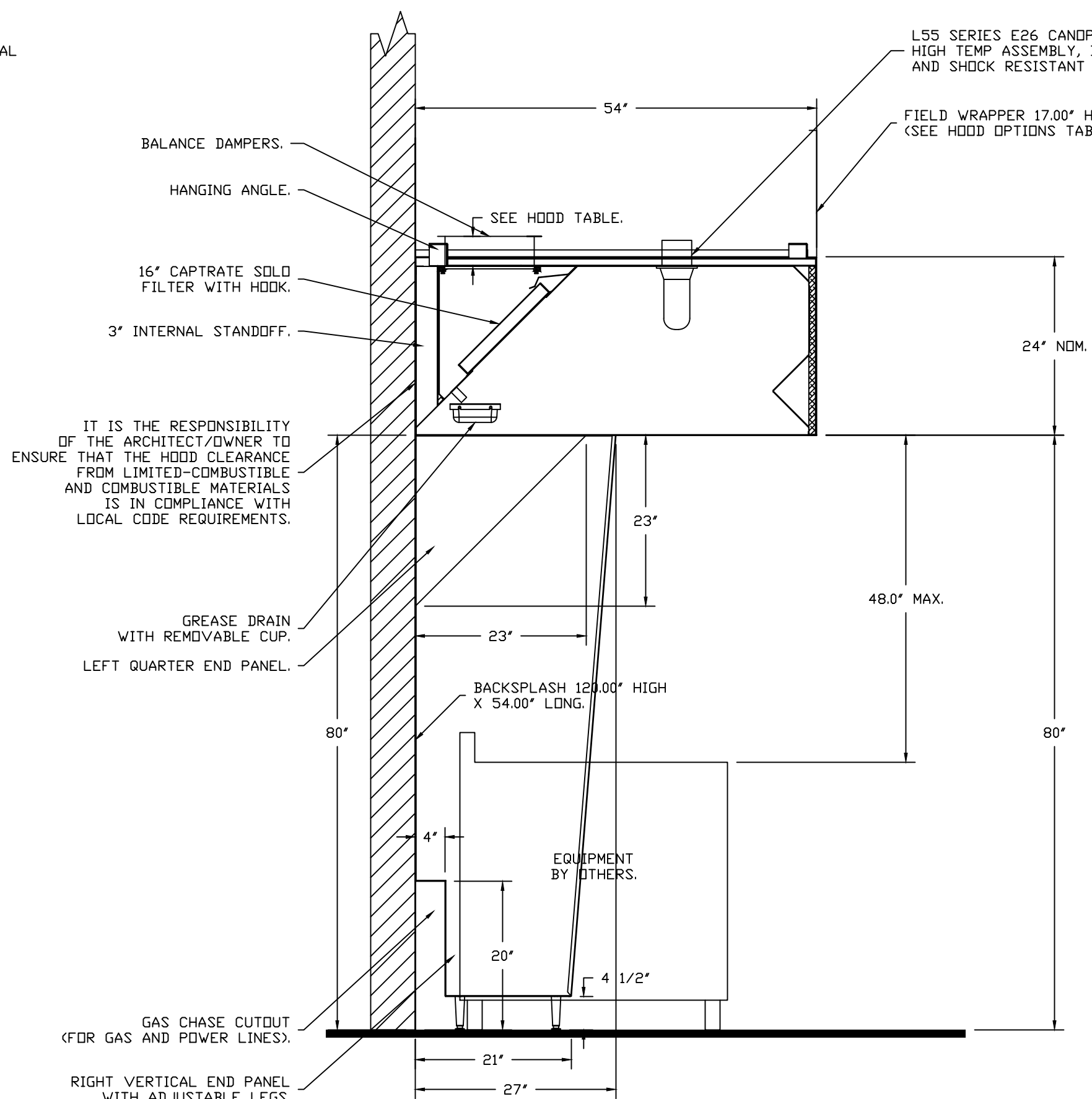
Air Solutions

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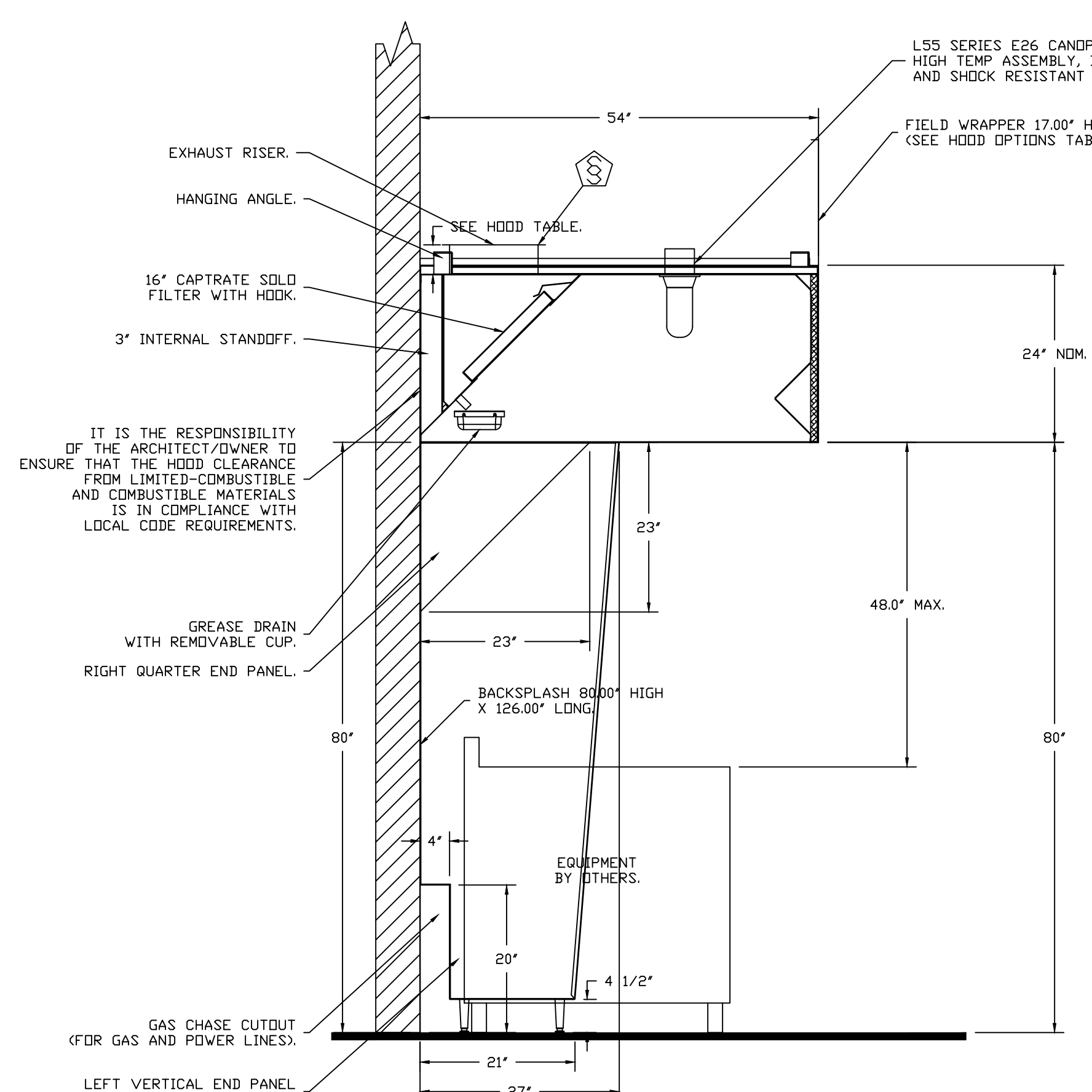
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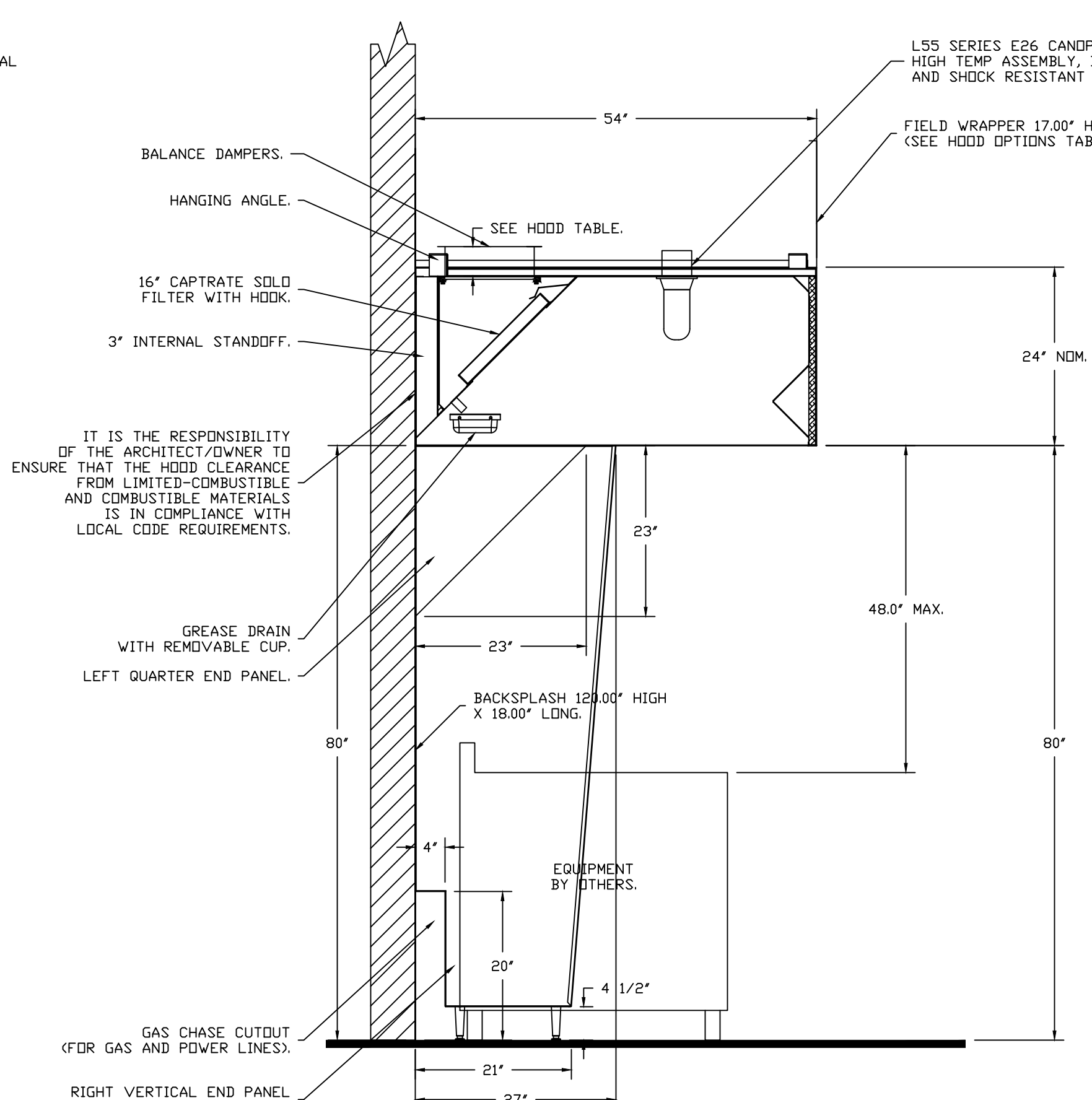
SECTION VIEW - MODEL 5424ND-2
HOOD - #1 (HD 1-CT113)



SECTION VIEW - MODEL 5424ND-2
HOOD - #2 (HD2-CT110)



SECTION VIEW - MODEL 5424ND-2
HOOD - #3 (HD3-CT111)



SECTION VIEW - MODEL 5424ND-2
HOOD - #4 (HD4-CT109)

HOOD'S 1,2 ARE SERVED BY (1) EXHAUST FAN.
HOOD'S 3 & 4 ARE SERVED BY A DIFFERENT EXHAUST FAN.
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DWG.#: 4879395

DRAWN BY: jcirilli

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

MASTER DRAWING

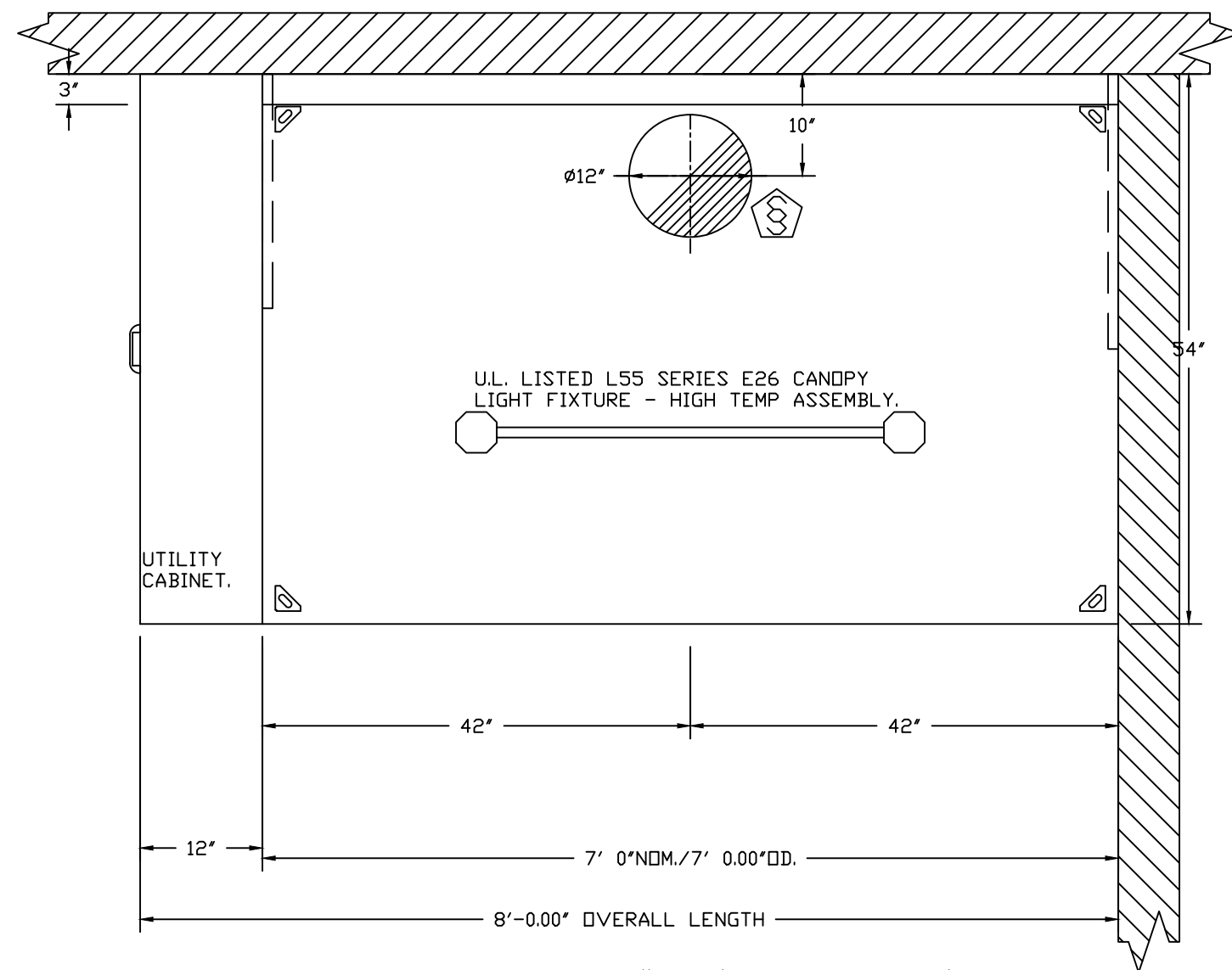
SHEET NO. 4

SCULLERY POD

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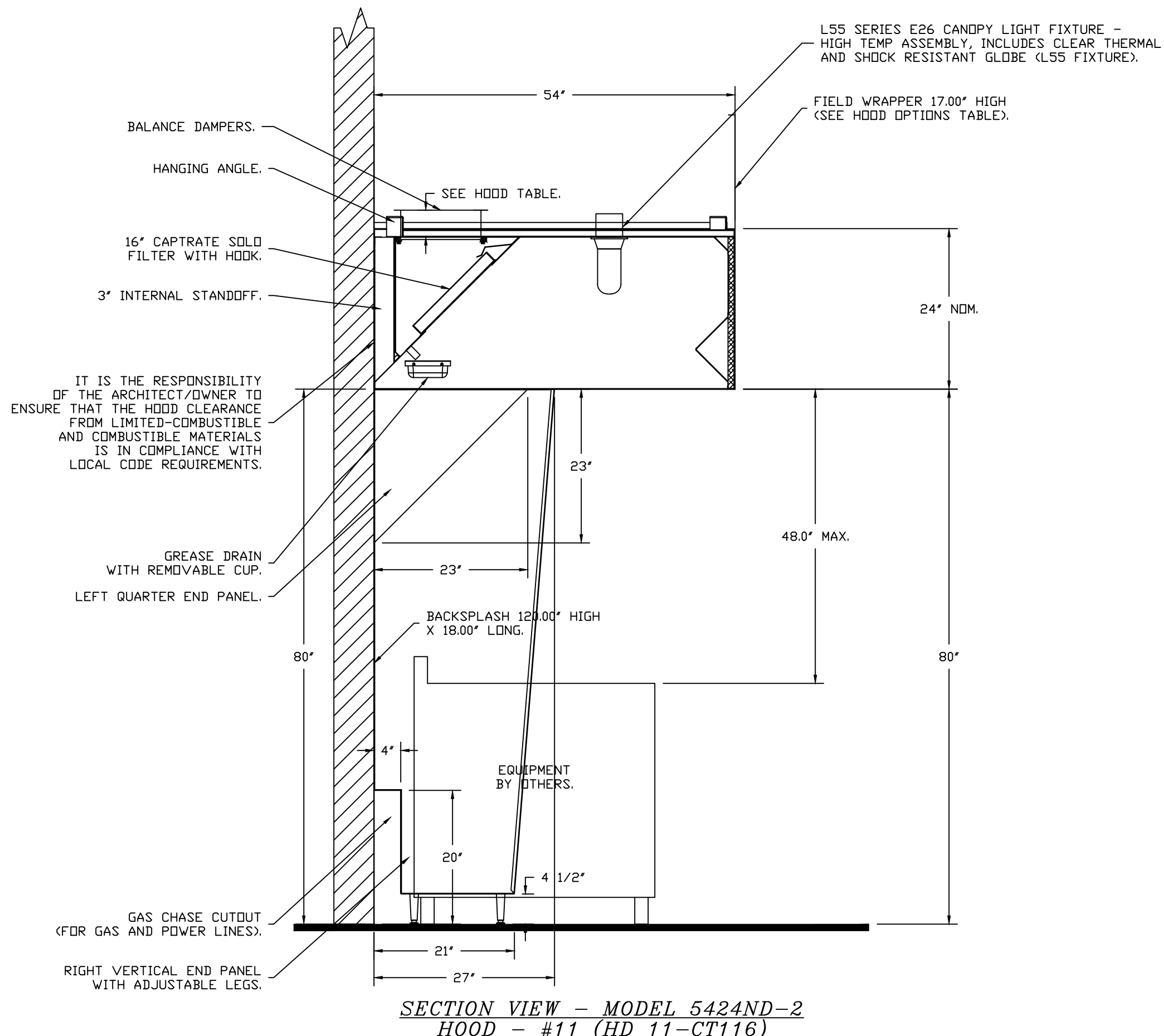
HOOD INFORMATION - JOB#4879395

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
11	HD 11-CT116	5424 ND-2	CAPTIVEAIRE	7' 0"	500 DEG	I	HEAVY	175	1225			4'	12"	1225	1560	-0.632"	0	430 SS WHERE EXPOSED	ALONE	ALONE

POD-A

HOOD OPTIONS

HOOD NO	TAG	OPTION
5	HD 5-CT114	FIELD WRAPPER 17.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 138.00" LONG 430 SS VERTICAL.
		BACKSPLASH 120.00" HIGH X 18.00" LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		BALANCE DAMPERS.
6	HD 6-CT114	RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		SENSDR-CV.
		FIELD WRAPPER 17.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 126.00" LONG 430 SS VERTICAL.
		BACKSPLASH 120.00" HIGH X 18.00" LONG 430 SS VERTICAL.
7	HD 7-CT114	LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		BALANCE DAMPERS.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		SENSDR-CV.
		FIELD WRAPPER 17.00" HIGH FRONT, LEFT, RIGHT.
8	HD 8-CT114	BACKSPLASH 80.00" HIGH X 138.00" LONG 430 SS VERTICAL.
		BACKSPLASH 120.00" HIGH X 18.00" LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		BALANCE DAMPERS.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
9	HD 9-CT114	SENSDR-CV.
		FIELD WRAPPER 17.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 126.00" LONG 430 SS VERTICAL.
		BACKSPLASH 120.00" HIGH X 18.00" LONG 430 SS VERTICAL.
		LEFT SIDESPLASH 80.00" HIGH X 54.00" LONG 430 SS VERTICAL.
10	HD 10-CT114	RIGHT SIDESPLASH 80.00" HIGH X 54.00" LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		BALANCE DAMPERS.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		SENSDR-CV.
11	HD 11-CT116	FIELD WRAPPER 17.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 96.00" LONG 430 SS VERTICAL.
		BACKSPLASH 120.00" HIGH X 18.00" LONG 430 SS VERTICAL.
		BACKSPLASH 120.00" HIGH X 18.00" LONG 430 SS VERTICAL.
		RIGHT SIDESPLASH 80.00" HIGH X 54.00" LONG 430 SS VERTICAL.



REVISIONS

DESCRIPTION	DATE

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MASTER DRAWING

SHEET NO. 5

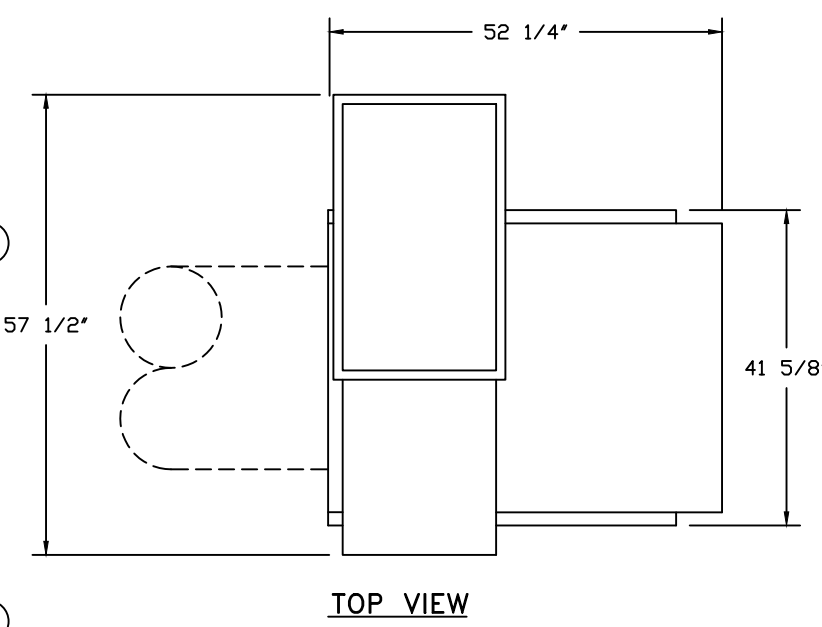
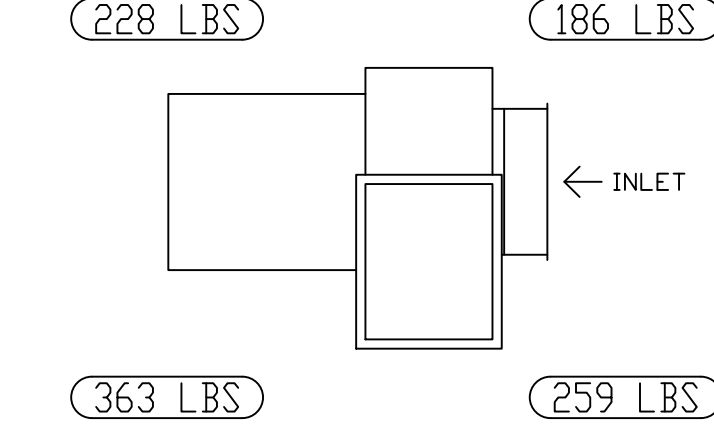
CT113, CT110 & CT116

EXHAUST FAN INFORMATION - JOB#4879395

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	KEF 1	1	USB130DD-RM	CAPTIVEAIRE	4812	2.400	944	DDP,PREMIUM	7.500	3.4770	3	208	22.3	1125 FPM	1036	29

FAN #1 USB130DD-RM-S - EXHAUST FAN (KEF 1)
CORNER WEIGHTS ARE CALCULATED BASED ON VERTICAL DISCHARGE. SUPPORT DUCT PROPERLY BEFORE FAN TO ENSURE CORNER WEIGHTS ARE NOT AFFECTED.

UNIT PLAN VIEW CORNER WEIGHTS:

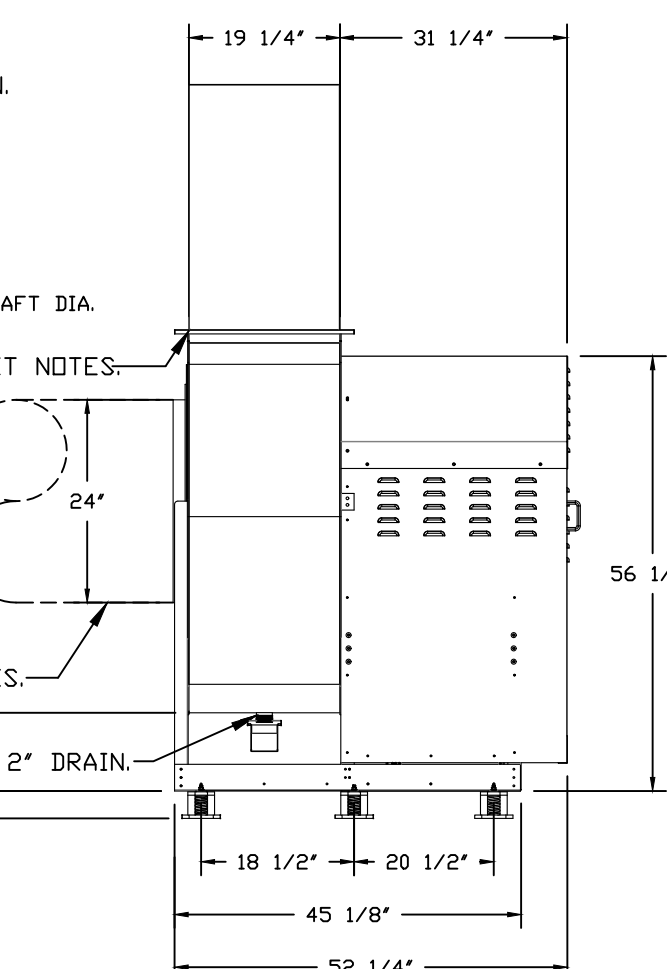
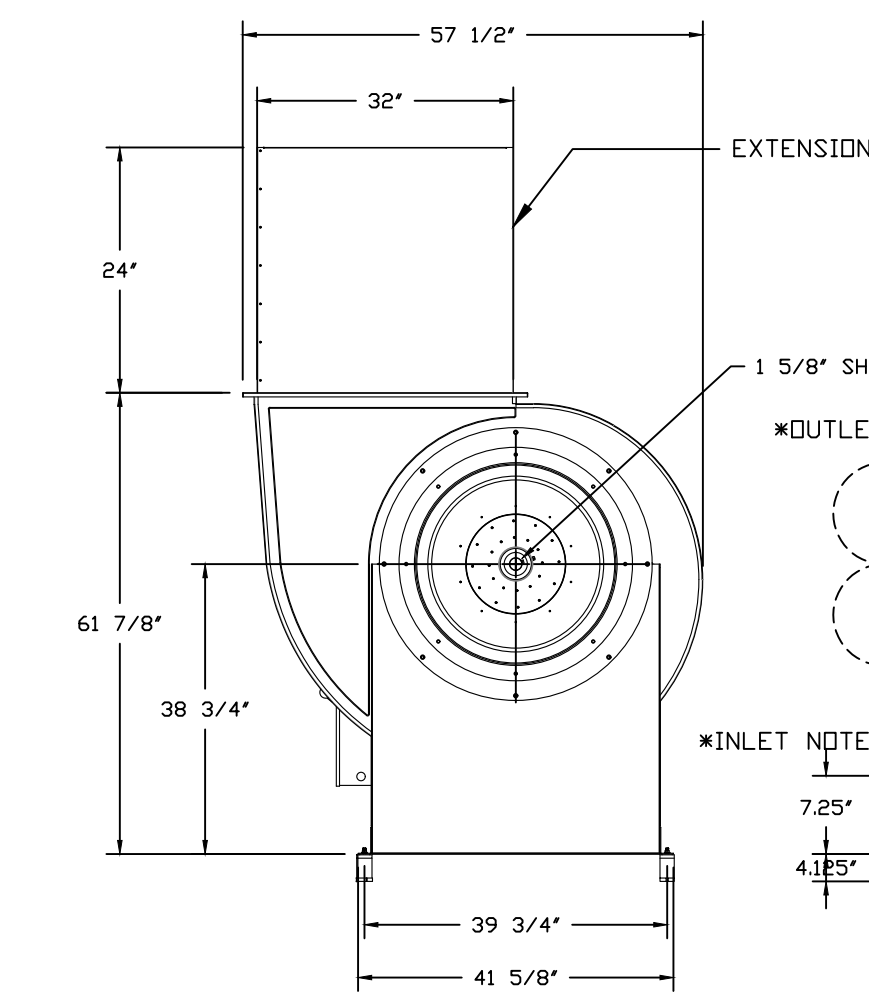


FEATURES:

- ROOF MOUNTED FANS.
- UL705.
- UL762 AND ULC-S645 (RESTAURANT MODEL).
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C).
- HEAT SLINGER.
- NEMA 3R SAFETY DISCONNECT SWITCH.
- GREASE CLASSIFICATION TESTING.
- 2" DRAIN.
- MOTOR WEATHER COVER.
- FULLY SEALED SCROLL HOUSING.
- SCROLL ACCESS DOOR.
- FLANGE 2".

OPTIONS

- B130 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 24" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER.
- UTILITY SET GREASE CUP.
- B130 - 24" DISCHARGE EXTENSION.
- B1 - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
- B130 - INLET CONNECTION STANDARD 24" FLANGED GREASE DUCT.
- UTILITY SET - SPRING VIBRATION ISOLATORS - B124 THRU B130 / EQUIVALENT SIZED UTILITY SET / SIF 24-30 + FILTER BANK - INDDOR/OUTDOOR USE.
- 2 YEAR PARTS WARRANTY.



SIDE VIEW

(6) ISOLATORS = USB118 THRU 36.

FRONT VIEW

* INLET/OUTLET NOTES:
LENGTH OF THE STRAIGHT DUCT ON THE INLET AND OUTLET TO BE 3 TIMES THE EQUIVALENT DUCT DIAMETER BEFORE CONNECTING TO ANY FITTINGS SUCH AS ELBOWS TO AVOID SYSTEM EFFECT.

NORMAL TEMPERATURE TEST DIRECT DRIVE
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 350°F (176°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

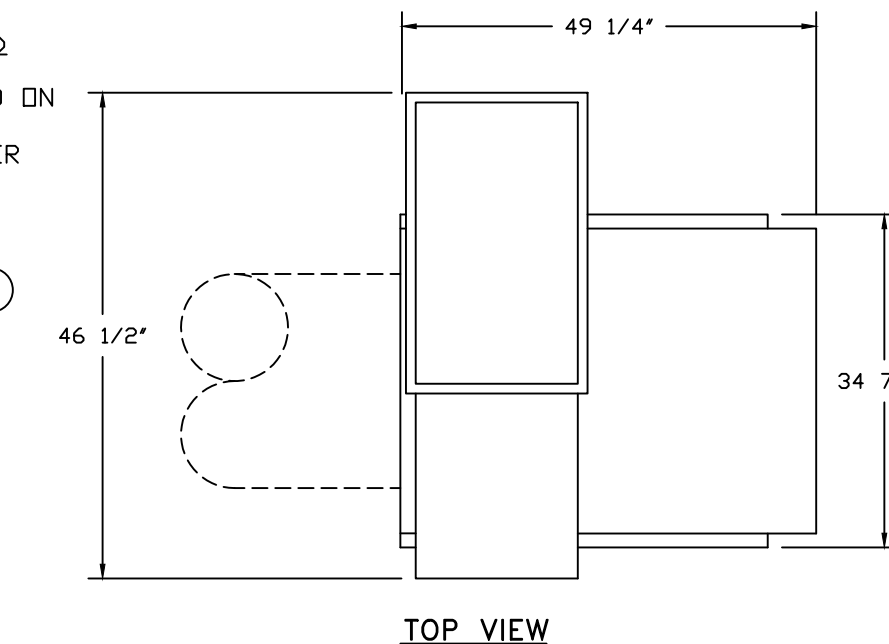
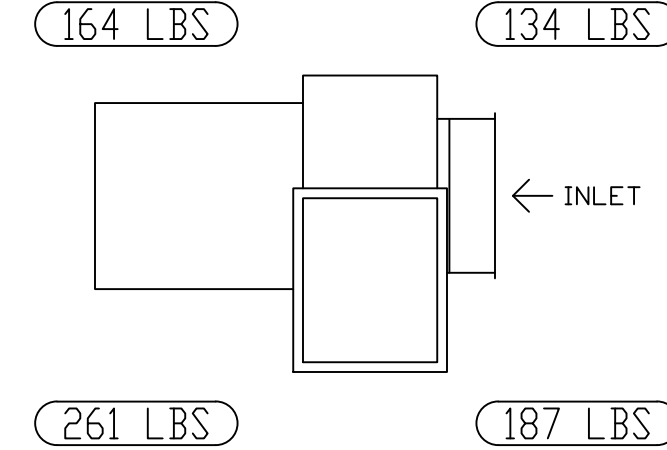
CT111 & CT109

EXHAUST FAN INFORMATION - JOB#4879395

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
2	KEF 2	1	USB124DD-RM	CAPTIVEAIRE	3324	2.500	1092	DDP,PREMIUM	5.000	2.7750	3	208	15.8	1102 FPM	747	23

FAN #2 USB124DD-RM-S - EXHAUST FAN (KEF 2)
CORNER WEIGHTS ARE CALCULATED BASED ON VERTICAL DISCHARGE. SUPPORT DUCT PROPERLY BEFORE FAN TO ENSURE CORNER WEIGHTS ARE NOT AFFECTED.

UNIT PLAN VIEW CORNER WEIGHTS:

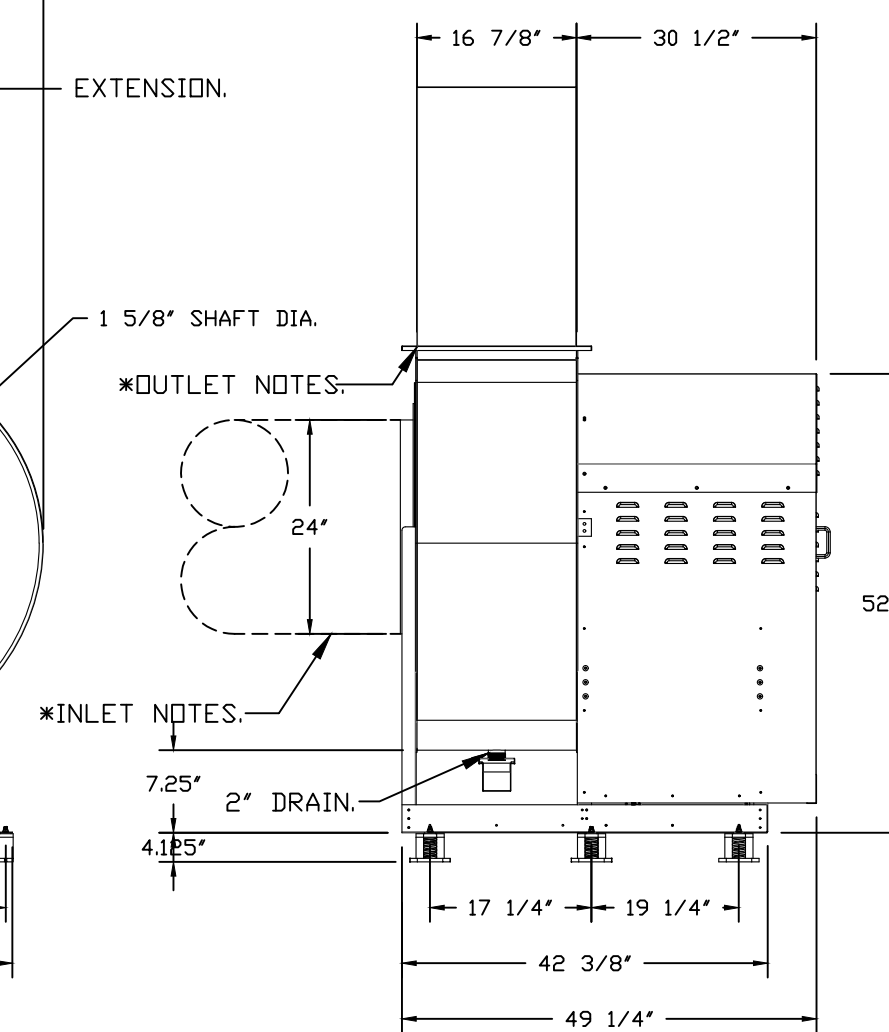
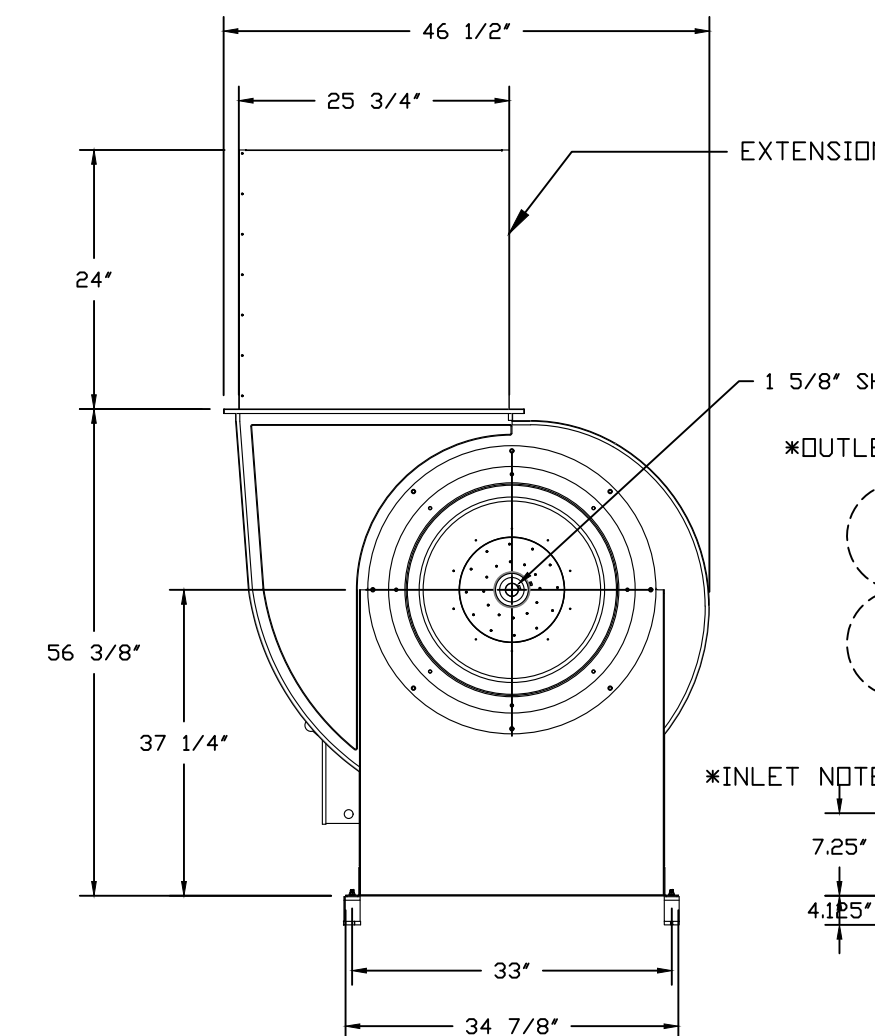


FEATURES:

- ROOF MOUNTED FANS.
- UL705.
- UL762 AND ULC-S645 (RESTAURANT MODEL).
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C).
- HEAT SLINGER.
- NEMA 3R SAFETY DISCONNECT SWITCH.
- GREASE CLASSIFICATION TESTING.
- 2" DRAIN.
- MOTOR WEATHER COVER.
- FULLY SEALED SCROLL HOUSING.
- SCROLL ACCESS DOOR.
- FLANGE 2".

OPTIONS

- B124 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 24" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER.
- UTILITY SET GREASE CUP.
- B124 - 24" DISCHARGE EXTENSION.
- B1 - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
- B124 - INLET CONNECTION STANDARD 24" FLANGED GREASE DUCT.
- UTILITY SET - SPRING VIBRATION ISOLATORS - B124 THRU B130 / EQUIVALENT SIZED UTILITY SET / SIF 24-30 + FILTER BANK - INDDOR/OUTDOOR USE.
- 2 YEAR PARTS WARRANTY.



SIDE VIEW

(6) ISOLATORS = USB118 THRU 36.

FRONT VIEW

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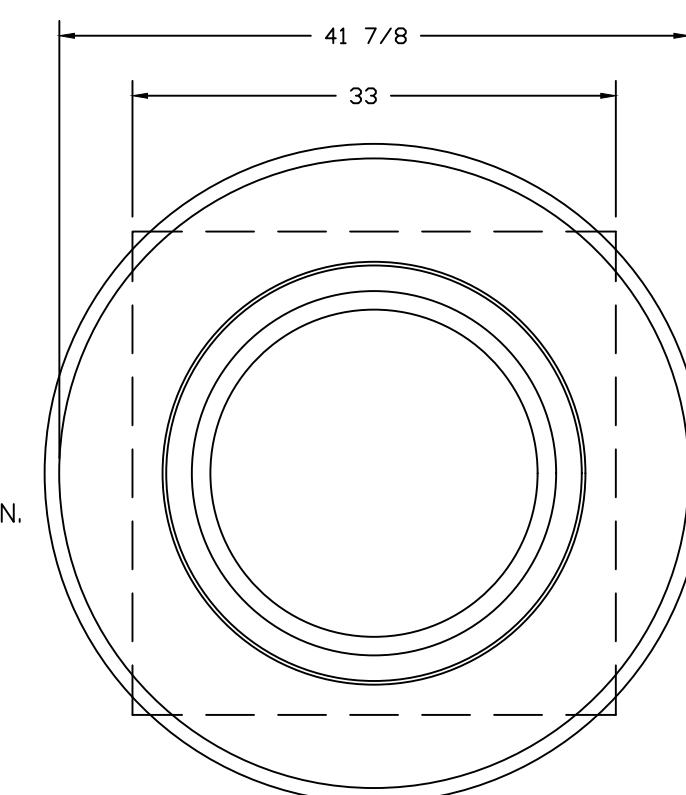
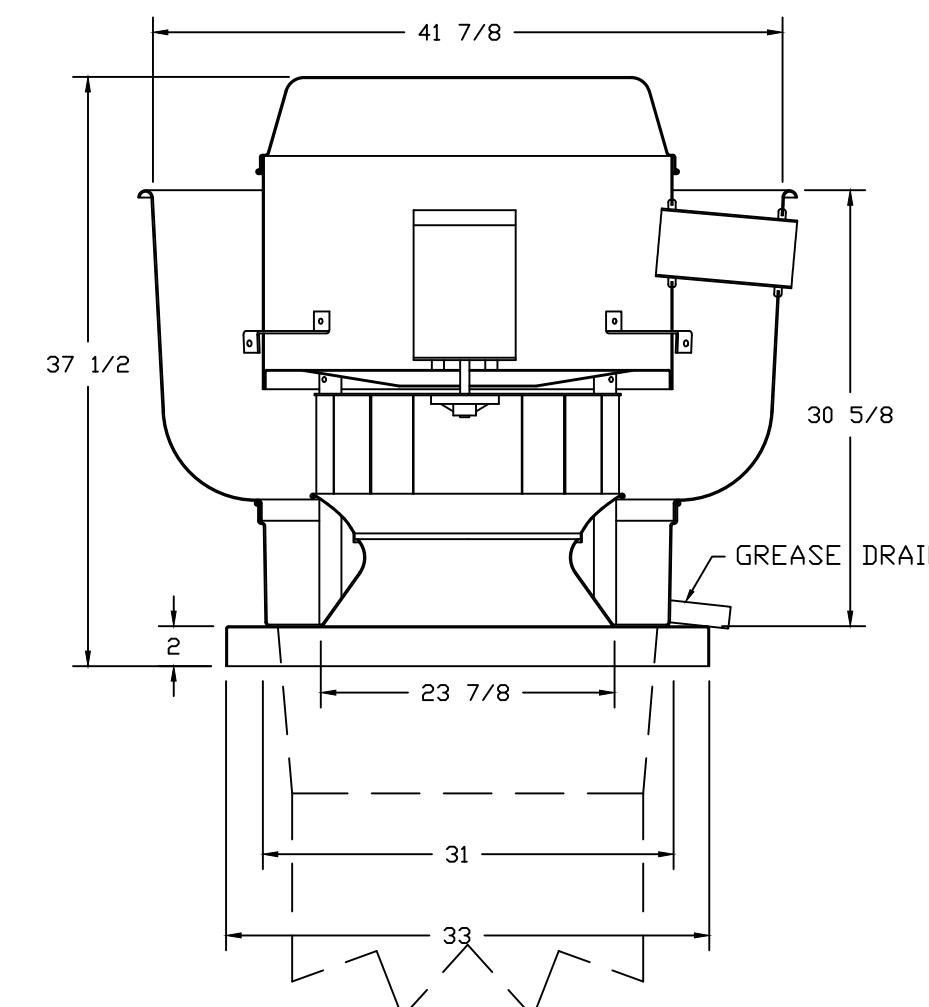
NORMAL TEMPERATURE TEST DIRECT DRIVE
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 350°F (176°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

CT114 (QTY 2 FANS FOR TWO SETS OF HOODS)

EXHAUST FAN INFORMATION - JOB#4879395

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
3	KEF 3	1	DU240HFA	CAPTIVEAIRE	5514	1.600	1012	TEFC,PREMIUM	5.000	2.9830	3	208	15.5	1253 FPM	358	21
4	KEF 4	1	DU240HFA	CAPTIVEAIRE	5514	1.650	1022	TEFC,PREMIUM	5.000	3.0650	3	208	15.5	1253 FPM	358	22

FANS #3 (KEF 3), #4 (KEF 4) - DU240HFA 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

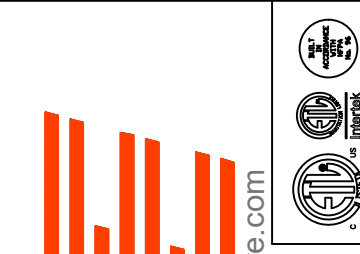
- FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
- SHIP LOOSE DISCONNECT FOR REMOTE MOUNT.
- UPBLAST FAN WHEEL ACCESS PORT.
- INTERCEPTOR 24 - EXTENDED DRAIN FOR FIELD SUPPLIED GREASE INTERCEPTOR.
- 2 YEAR PARTS WARRANTY.

FAN ACCESSORIES

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

REVISIONS

DESCRIPTION	DATE



CAPTIVE AIR SOLUTIONS
www.captiveair.com
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6888 KITCHEN Rv2-Arcade
42 S Ludlow St,
Dayton, OH, 45402

DATE: 6/23/2022

DWG.#: 4879395

DRAWN BY: jcirilli

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

MASTER DRAWING

SHEET NO. 6

OPEN KITCHEN COOKLINE 1

OPEN KITCHEN COOKLINE 2

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
7	SF-MPU1	A2-D.500-20D-MPU	1	3	208-230	3 PHASE	60 HZ	14.5 AMPS	11.9 AMPS	20 AMPS	14 AWG	14
			2	5	208-230	3 PHASE	60 HZ	21.4 AMPS	17.4 AMPS	30 AMPS	10 AWG	14

MUA FAN INFORMATION - JOB#4879395

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MCCP	WEIGHT (LBS)	SDNES
7	SF-MPU1	1	A2-D.500-20D-MPU	20MF-2-MDD	A2-D.500	2900	4300	0.550	1729	DDP, PREMIUM	5.000	2.8990	3	208	15.0	18.8A	30A	1200/1300 (SIZE 2)	18.5

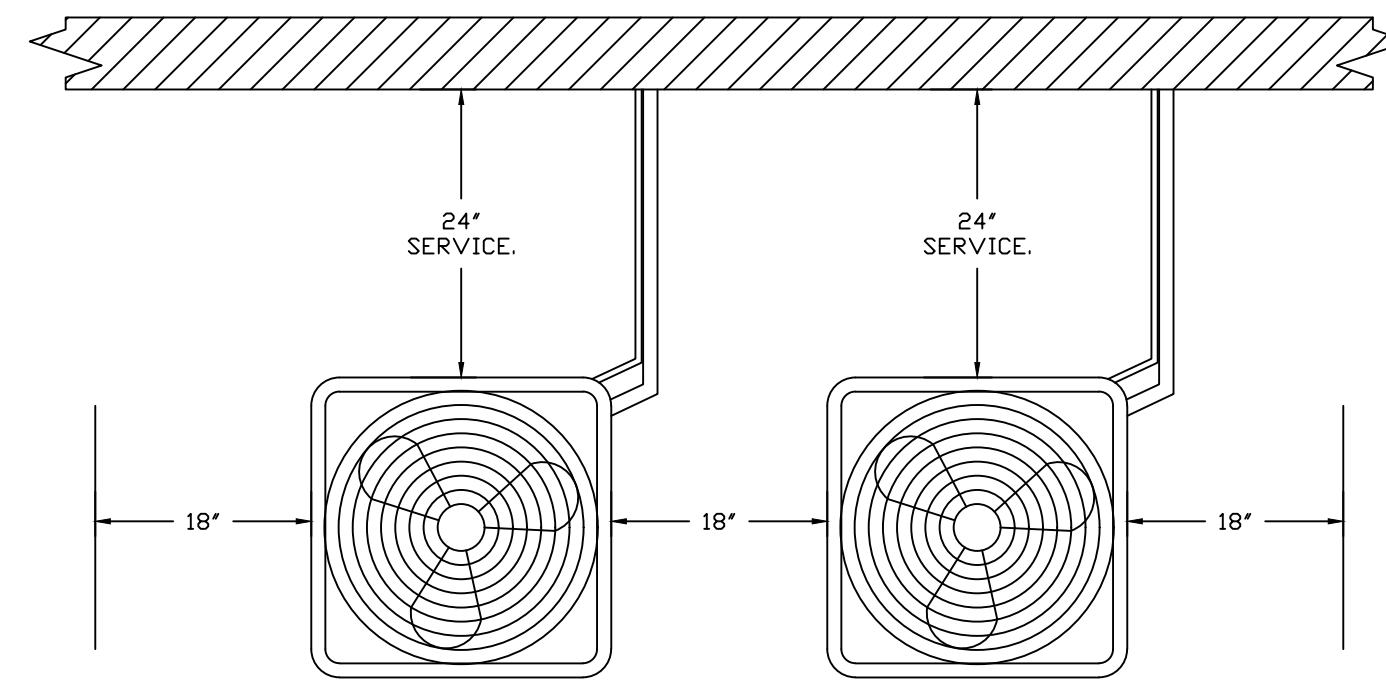
COILS - JOB#4879395

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING										
				ENTERING DB TEMP	ENTERING WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY
7	SF-MPU1	DX	4300	90.0°F	74.0°F	74.8°F	68.5°F	---	---	---	---	85.7 MBH	67.3 MBH	18.4 MBH

HEATING								
ENTERING DB TEMP	LEAVING DB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	STEAM PRESSURE	TOTAL CAPACITY	SENSIBLE CAPACITY
---	---	---	---	---	---	---	---	---

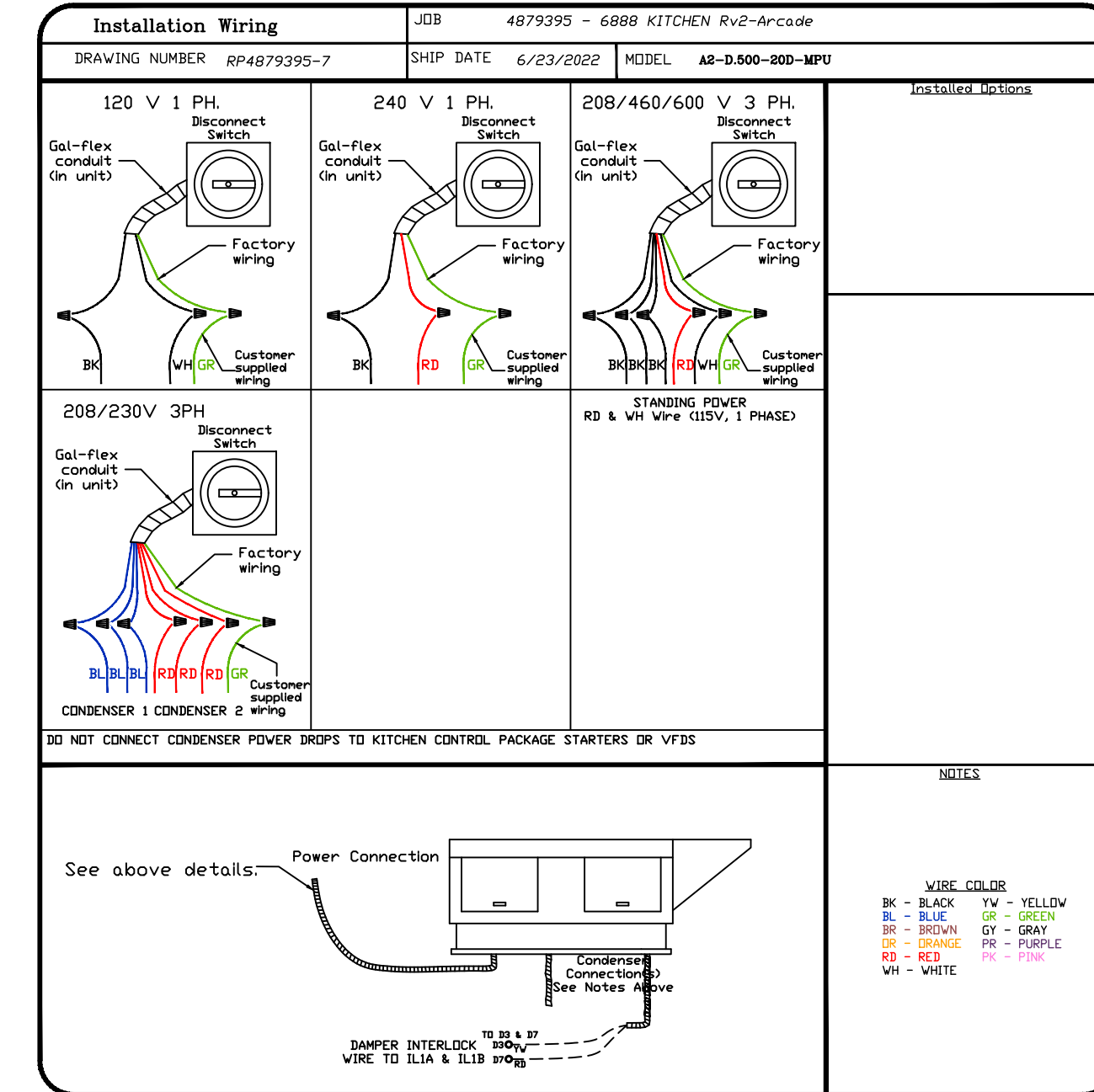
GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
7	SF-MPU1	320853	295185	66°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92



CONDENSER CLEARANCES
48" CLEARANCE REQUIRED ABOVE CONDENSERS.
(NOTE: **CONDENSERS SHOWN HERE ARE NOT DRAWN AT SCALE.)

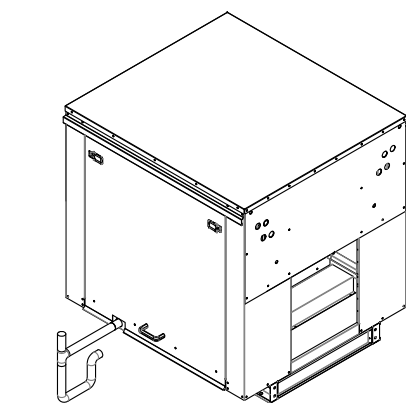
INLINE MUA UNIT (GAS/COOLED) THE CONDENSERS MOUNT OUTSIDE ON BACK EXTERIOR WALL.



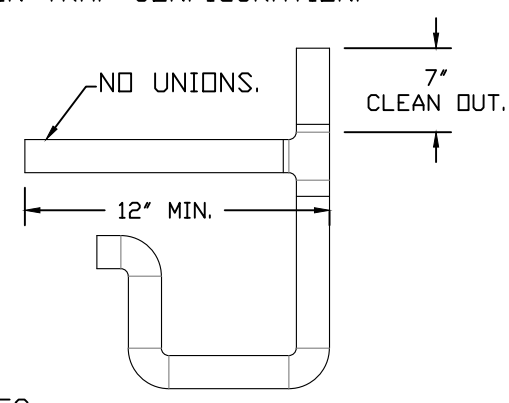
SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 9°F. TEMP. RISE = 66°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 303195.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 329560.
OUTPUT BTUs AT ALTITUDE OF 739 FT. = 295185.
INPUT BTUs AT ALTITUDE OF 739 FT. = 320853.

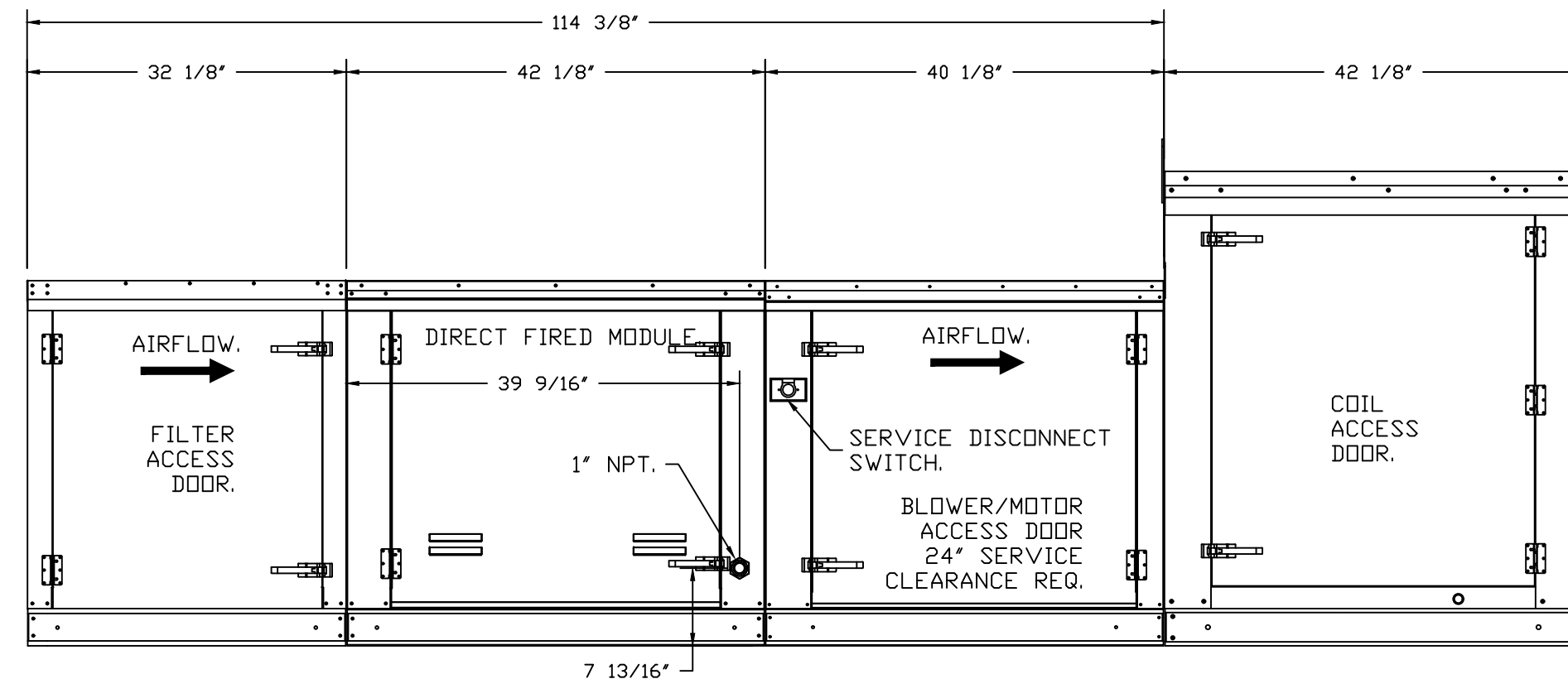
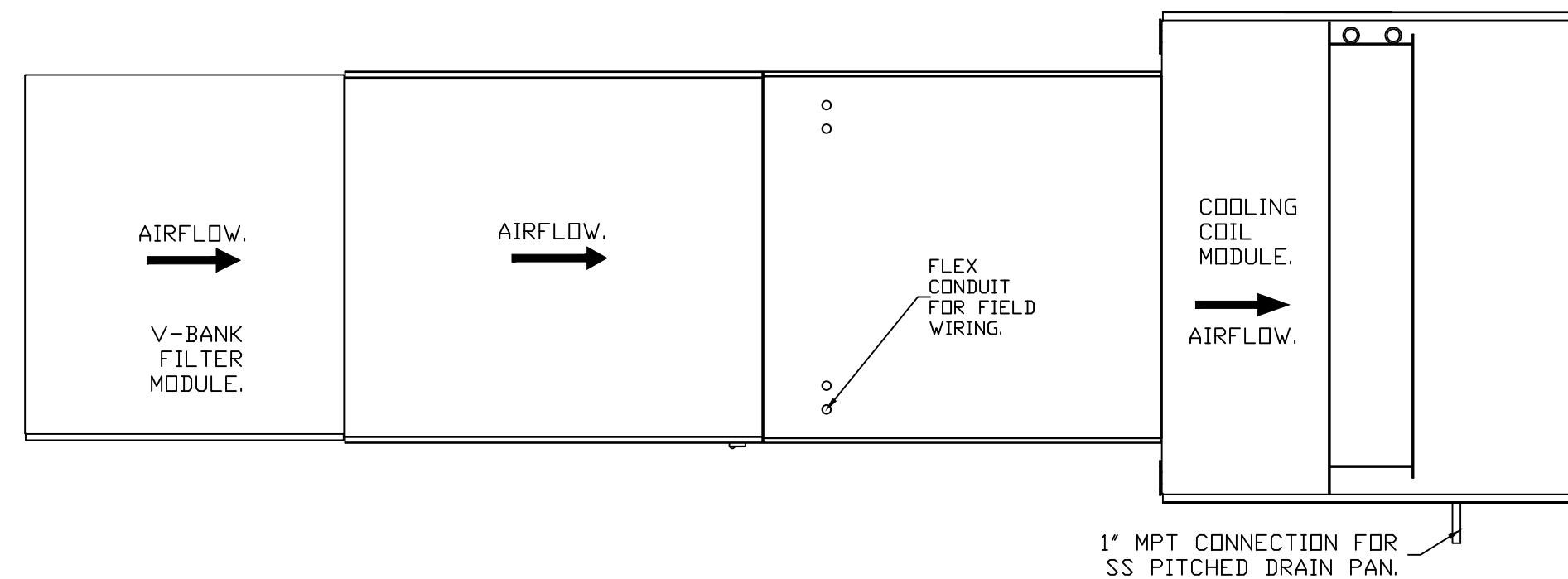
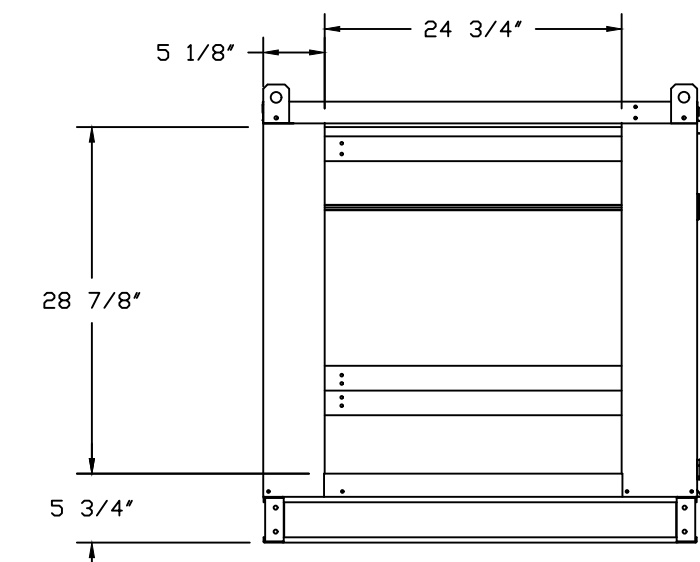
TYPICAL DRAIN TRAP INSTALL



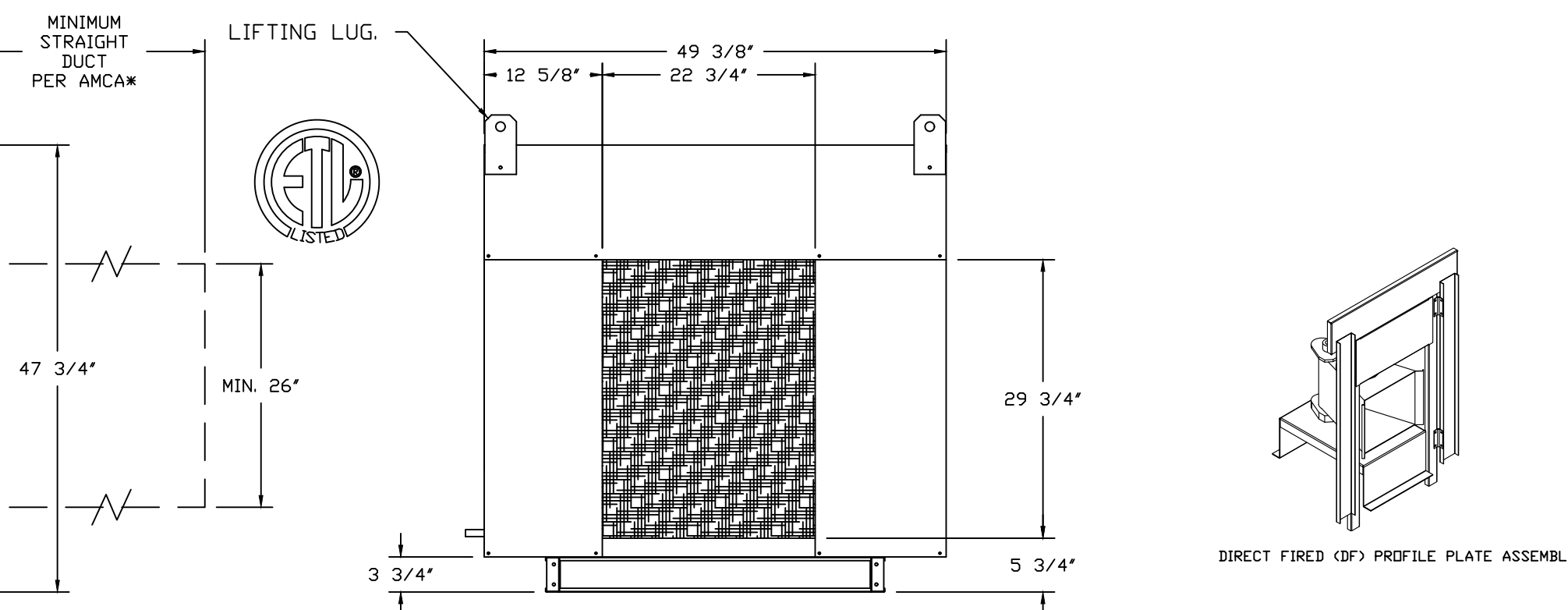
RECOMMENDED COOLING COIL DRAIN TRAP CONFIGURATION.



NOTES:
1) 1" DIAMETER PVC PIPE ONLY.
2) USE ONLY LOW PROFILE COUPLINGS.
3) ADD CLEAN OUT AS SHOWN.



- FAN #7 A2-D.500-20D-MPU - HEATER (SF-MPU1)
- DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.
 - V-BANK EZ FILTERS - INDOOR.
 - SIDE DISCHARGE - AIR FLOW LEFT -> RIGHT.
 - 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.
 - LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
 - 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.
 - MOUNT MOTOR AND CONTROLS ON OPPOSITE SIDE OF HEATER.
 - 8 TON DUAL CIRCUIT (3/5) MODULAR PACKAGED COOLING OPTION FOR SIZE 2 DF/EH MODULAR PACKAGED UNIT. INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING (2,900 TO 4,800 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION. DRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE. ANY OTHER CHANGE WILL REQUIRE CLI. CONDENSERS REQUIRE SEPARATE 208V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = SE21101D.
 - SHIP CONDENSERS LOOSE. THE REFRIGERATION LINES WILL NEED TO BE STUBBED OUT 12 INCHES. THE SUCTION LINES NEEDS TO BE INSULATED INSIDE THE COIL MODULE. ROTARY DISCONNECT SHOULD NOT BE INSTALLED ON THE POST, BLANK POST SHOULD BE USED IN PLACE.
 - INSULATION FOR V-BANK INTAKE OPTION.
 - CLOGGED FILTER SWITCH WITH NOTIFICATION ON HMI.
 - SINGLE ELECTRICAL CABINET LED LIGHTS USED ON MODULAR MUA UNITS.
 - 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.
 - HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
 - 2 YEAR PARTS WARRANTY.
- *NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 26" X 26".



REVISIONS

DESCRIPTION	DATE

CAPTIVE

Air Solutions

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MASTER DRAWING

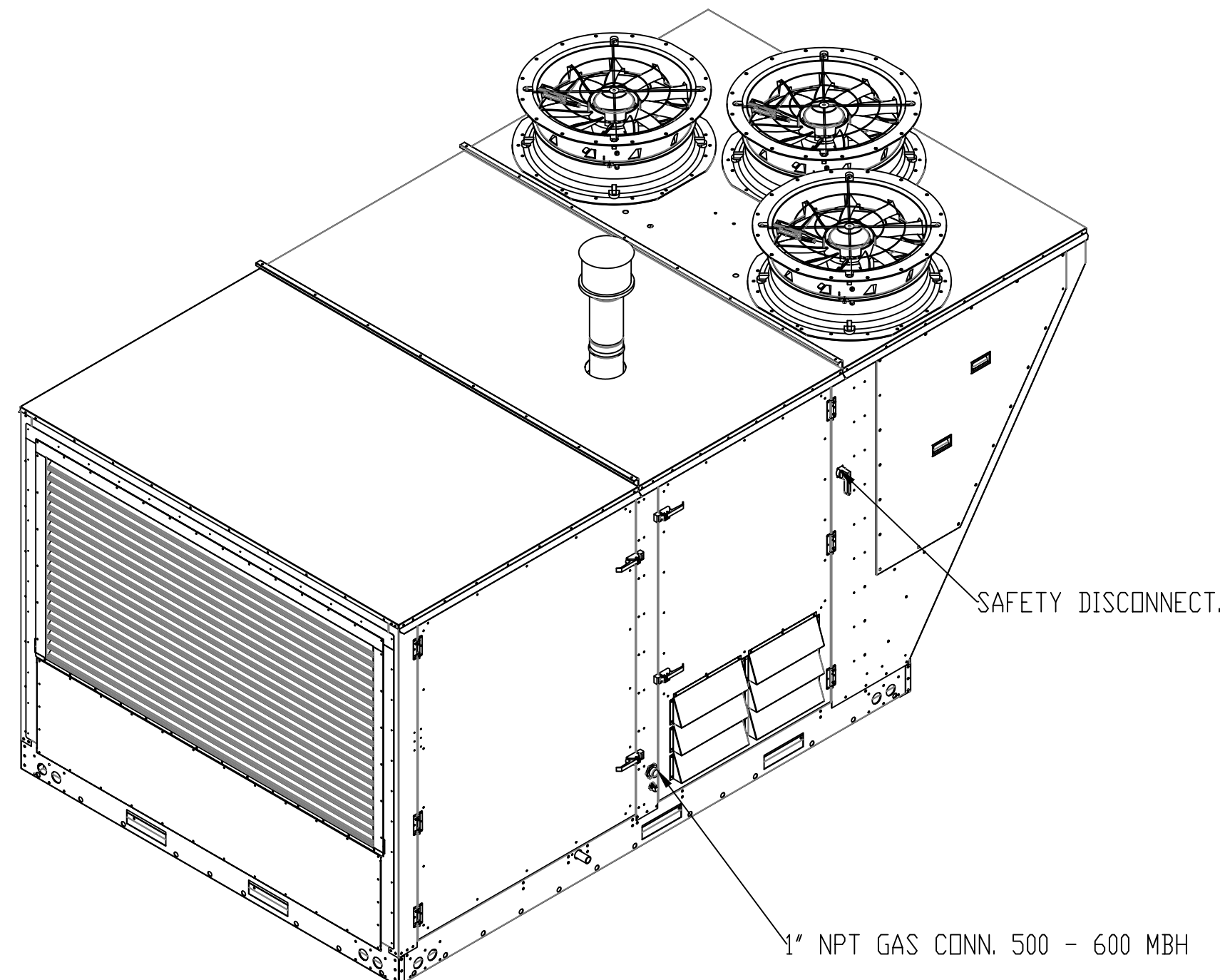
SHEET NO. 7

DOAS/RTU FAN SCHEDULE -- JOB#4879395

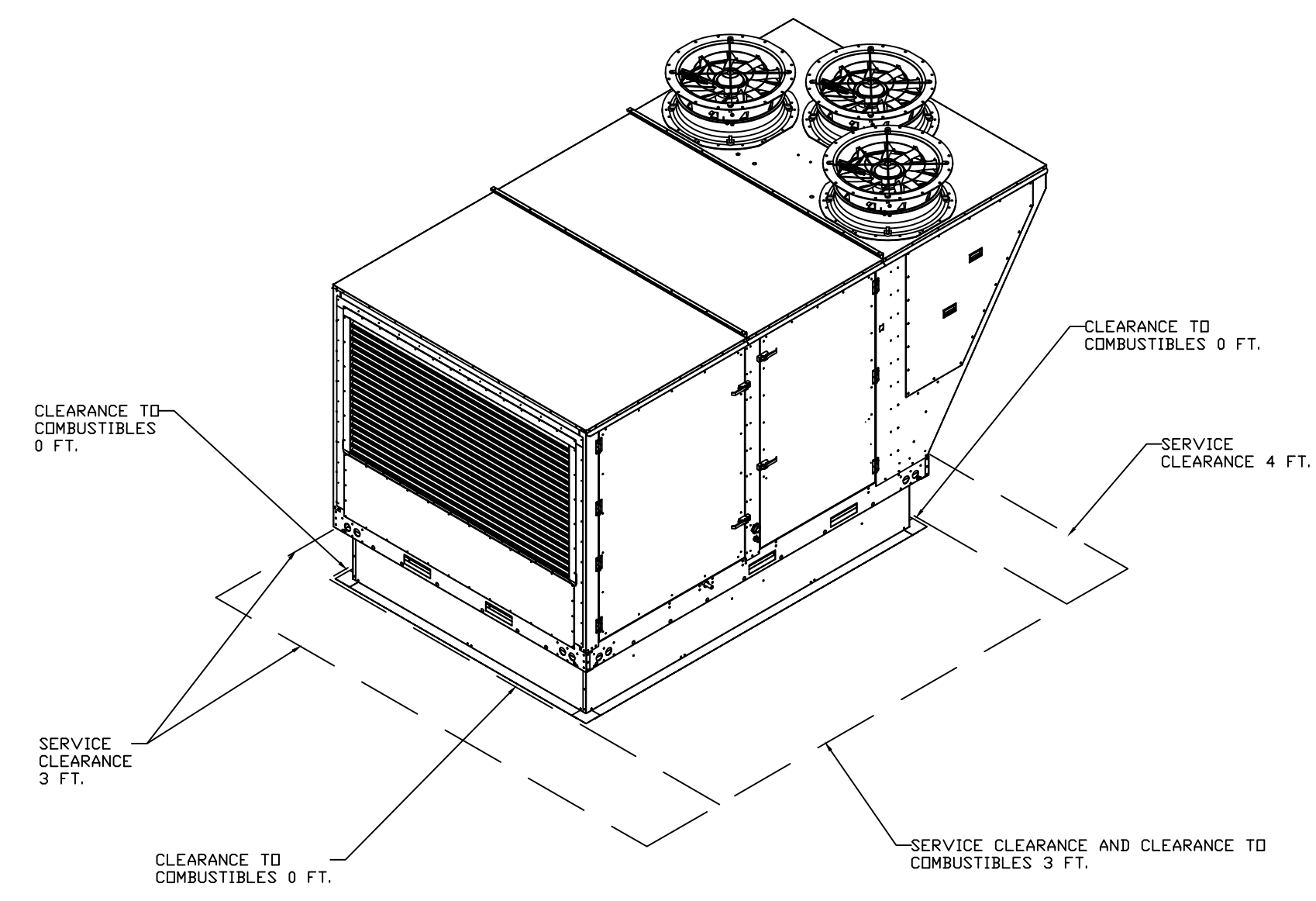
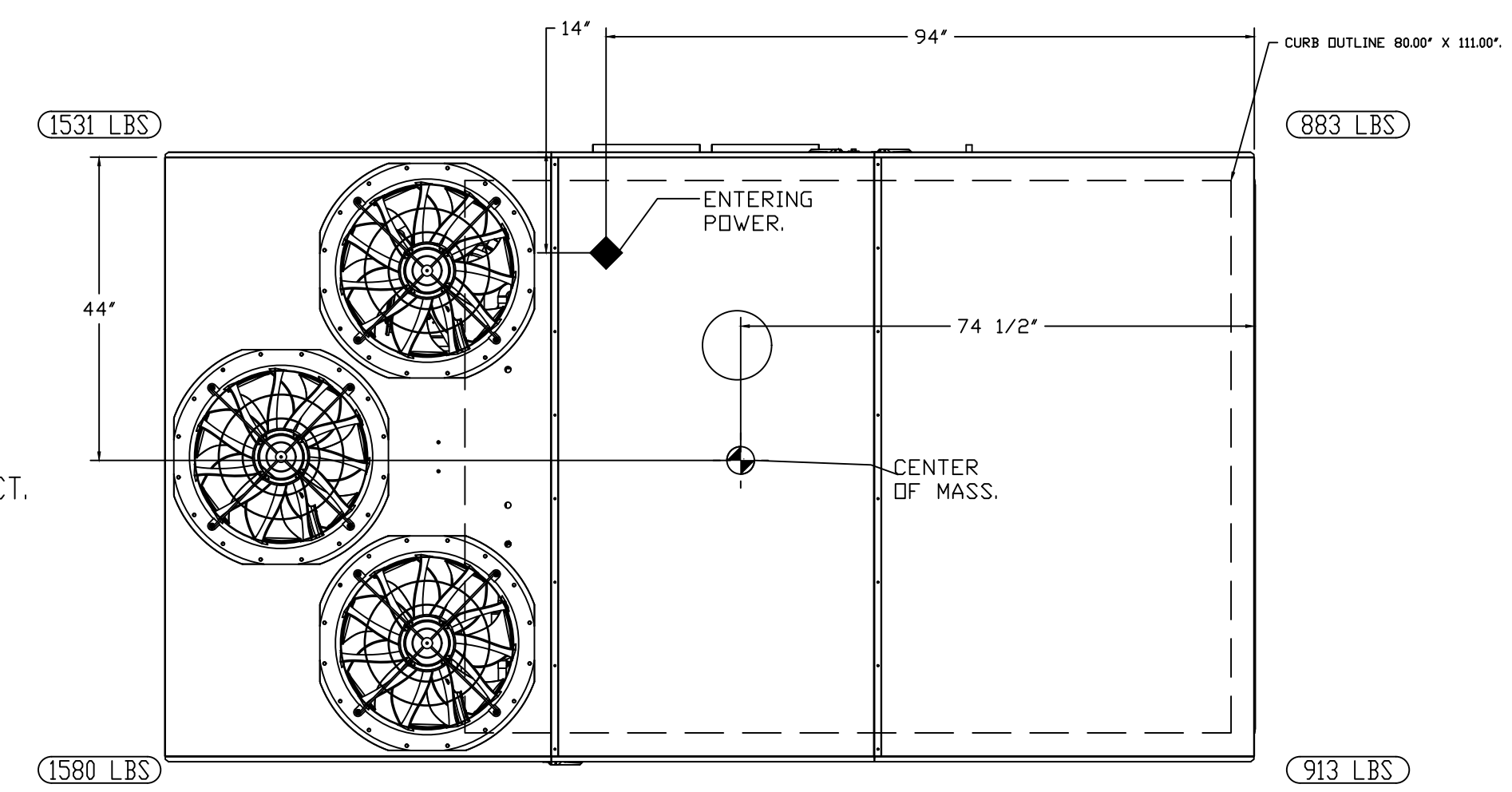
FAN INFORMATION											ELECTRICAL INFORMATION					COOLING INFORMATION					REHEAT INFORMATION				GAS HEAT INFORMATION				NOTES							
FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	HP	Ø	VOLT	MCA	MDCP	OUTSIDE AIR		MIXED AIR		LEAVING AIR		CAPACITY		DISCHARGE		CAPACITY		MOISTURE REMOVAL RATE		GAS TYPE	INPUT BTUs	OUTPUT BTUs	TEMP RISE			
																DB	WB	DB	WB	DB	WB	DP	TOTAL	SENS.	IEER	ISMRE	DB	WB		DESIRED	MAX					
5	DDAS-1	1	CASRTU4-1.600-30-30T-DDAS	CAPTIVEAIRE	30MF-4-RTU	0	5700	5700	4908	0.800	10.00	3	208	157.4A	175A	82.5°F	76.8°F	---	---	58.6°F	57.2°F	56.4°F	384.0 MBH	143.2 MBH	17.8	4.8	71.0°F	61.8°F	76.8 MBH	260 MBH	217.1 LBS/HR	NATURAL	591812	473450	70°F	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
5	DDAS-1	1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	INLET PRESSURE GAUGE, 0-35"
		2	RTU TOTAL CFM MONITORING
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", 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	2" MERV 13 FILTERS FOR RTU4 (QTY. 12)
		1	2" MERV 8 FILTERS FOR RTU4 (QTY. 12)
		1	OVERHEAT STAT
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	CLOGGED FILTER SWITCH - NOTIFICATION ON HMI
		1	RTU4 SIDE DISCHARGE
		1	30 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	30 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL
		1	OCCUPIED SCHEDULING
		1	RTUVZH170 COMPRESSOR SOUND BLANKET 230V - FACTORY INSTALLED
1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS		



FAN #5 CASRTU4-1.600-30MF-30T-DDAS - HEATER (DDAS-1)



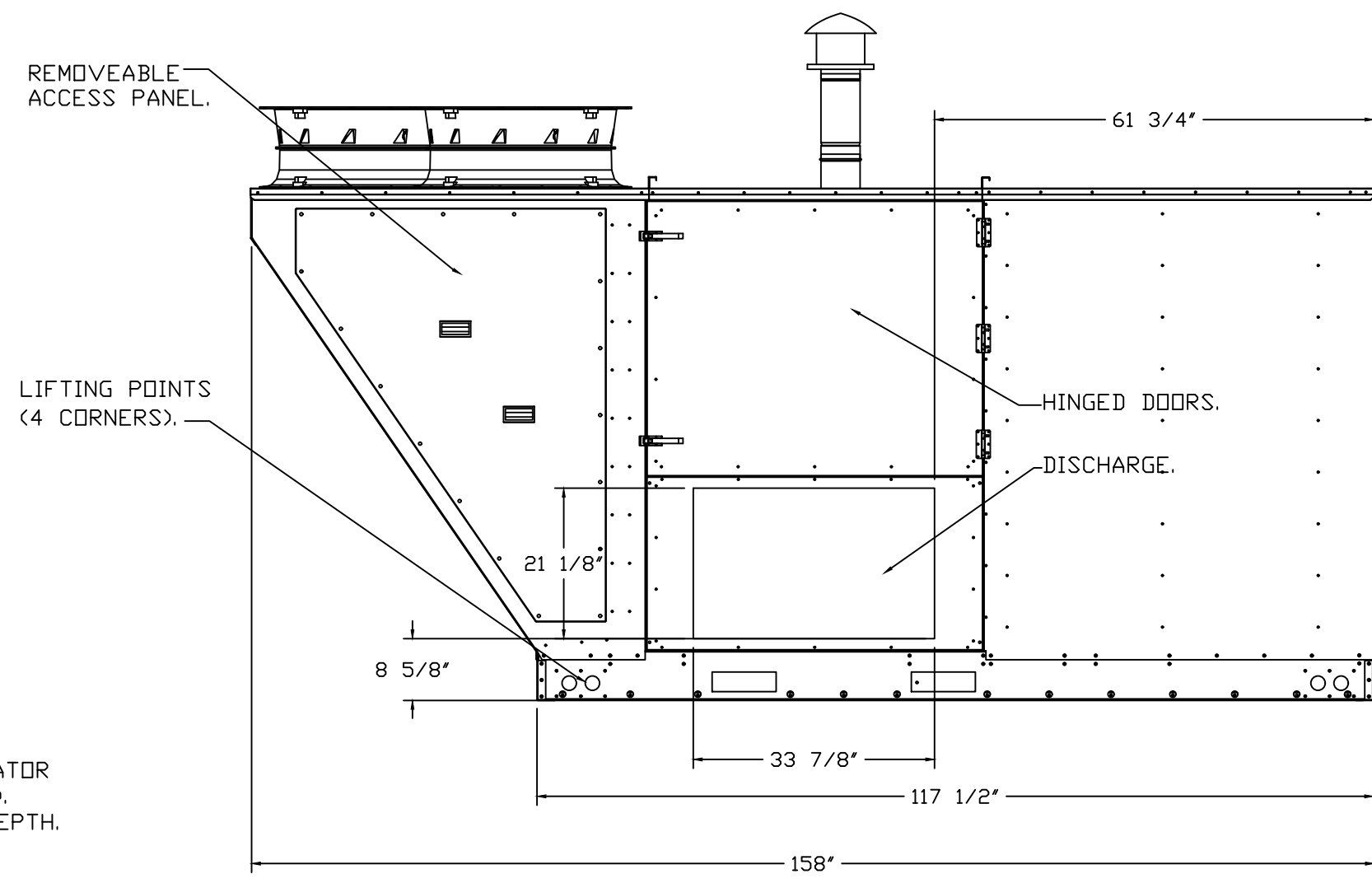
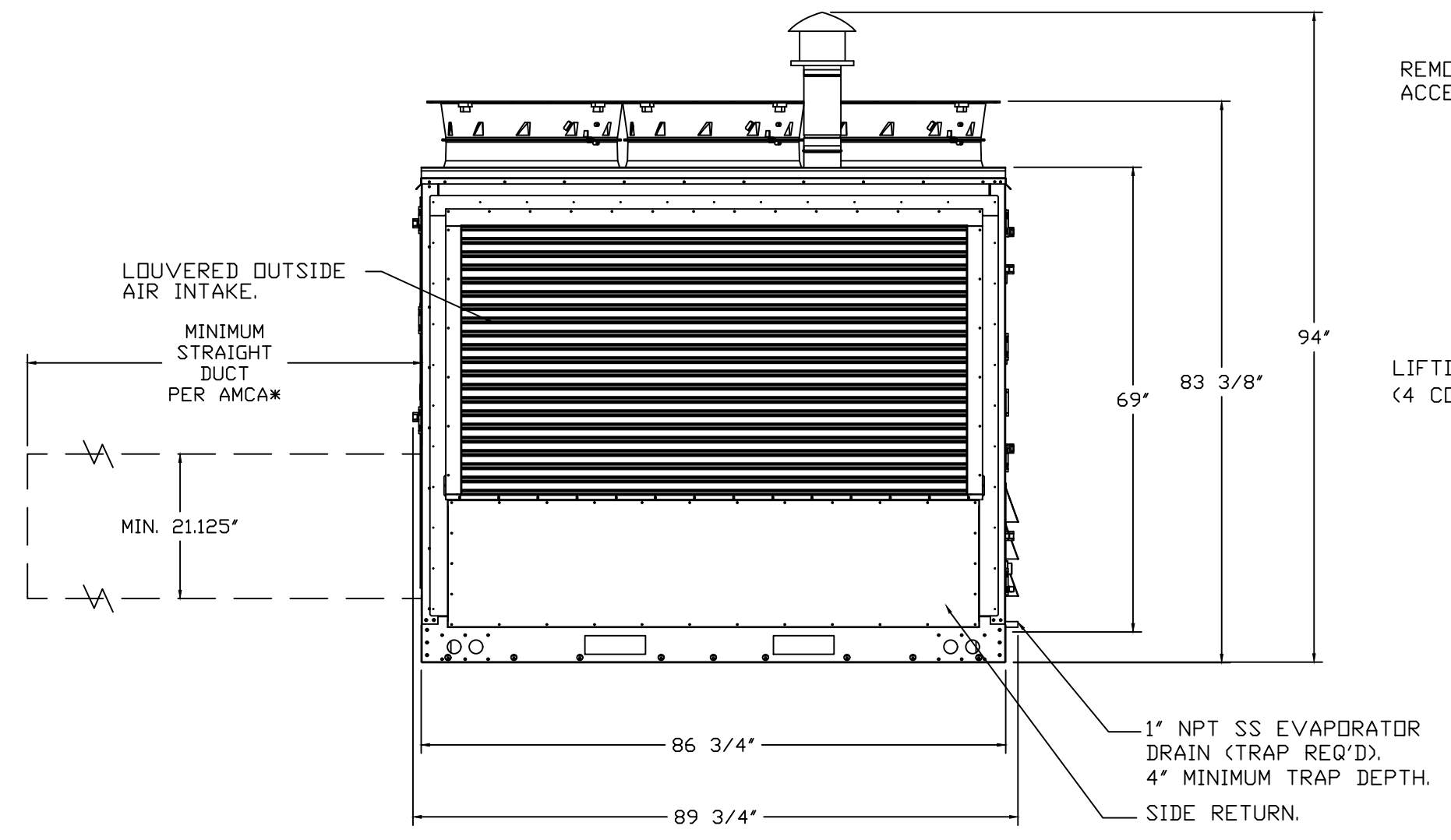
CLASSROOM PODS

UNIT MOUNTED ON UPPER ROOF AND DUCTED DOWN TO SUPPLY CONDITIONING TO SPACE & ALSO OUTSIDE AIR AS HOOD SYSTEMS ARE TURNED ON. SUPPLY AIR IS DISTRIBUTED THROUGHOUT SPACE WITH CEILING DIFFUSERS.

NOTES:

- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
- DENOTES CORNER WEIGHT.

*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 33.875" x 21.125".



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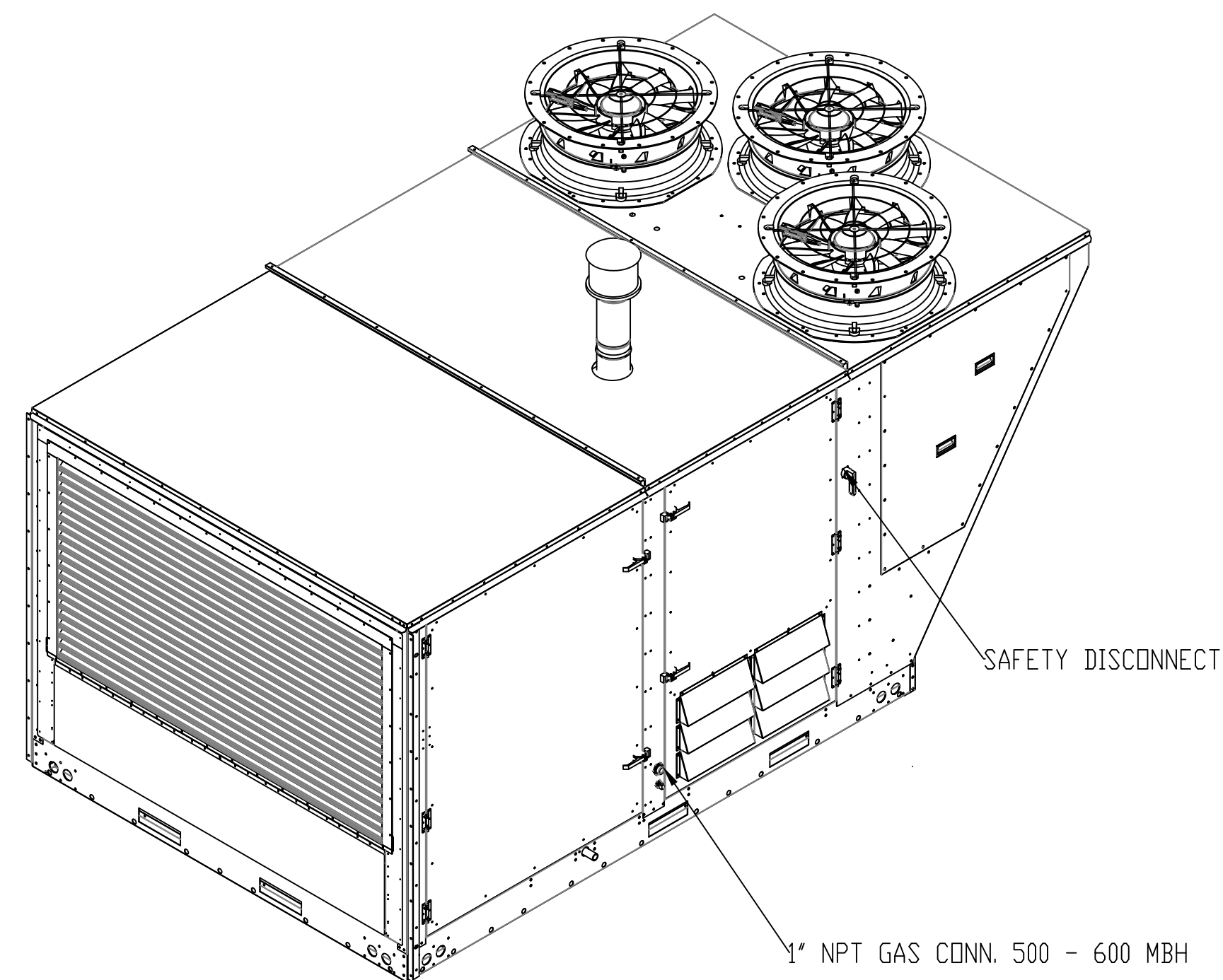
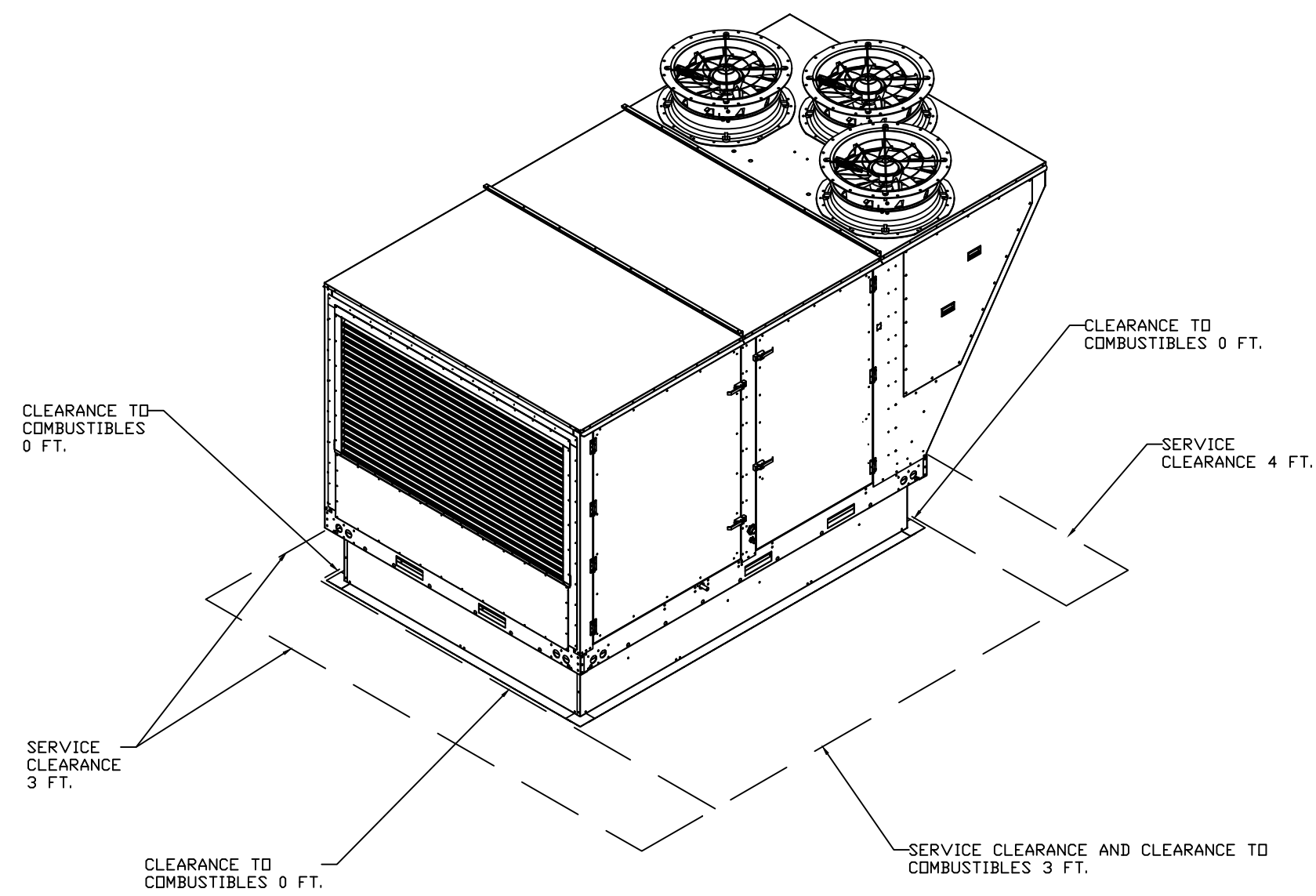
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SCALE: 3/4" = 1'-0"

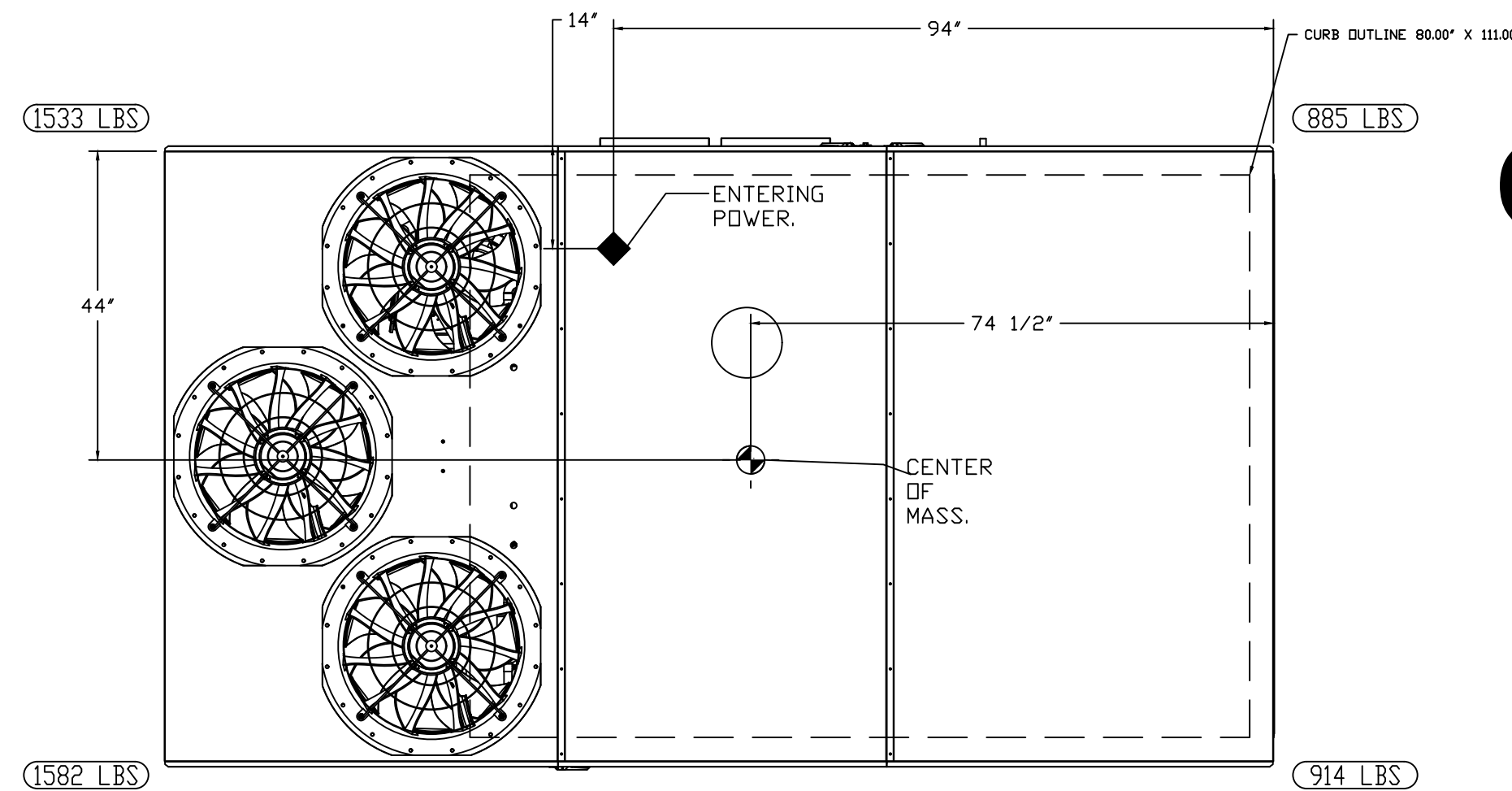
MASTER DRAWING

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	Ø	VOLT	MCA	MDCP	OUTSIDE AIR DB	OUTSIDE AIR WB	MIXED AIR DB	MIXED AIR WB	LEAVING AIR DB	LEAVING AIR WB	DP	TOTAL CAPACITY	IEER	ISMRE	DISCHARGE DB	DISCHARGE WB	CAPACITY DESIRED	CAPACITY MAX	MOISTURE REMOVAL RATE	GAS TYPE	INPUT BTUS	OUTPUT BTUS	TEMP RISE										
					0	5700	5700	4914	1.100	10.00	3	208	157.4A	175A	82.5°F	76.8°F	82.5°F	76.8°F	58.6°F	57.2°F	56.4°F	384.0 MBH	143.2 MBH	17.8	4.8	71.0°F	61.8°F	76.8 MBH	260 MBH	217.1 LBS/HR	NATURAL	591812	473450	70°F										
6	DDAS-RTU2	1	CASRTU4-1.600-30-30T-DDAS	CAPTIVEAIRE	30MF-4-RTU	0	5700	5700	4914	1.100	10.00	3	208	157.4A	175A	82.5°F	76.8°F	82.5°F	76.8°F	58.6°F	57.2°F	56.4°F	384.0 MBH	143.2 MBH	17.8	4.8	71.0°F	61.8°F	76.8 MBH	260 MBH	217.1 LBS/HR	NATURAL	591812	473450	70°F	1,2,3,4,5,6,7,8,9,10,11,12,13,15,17,18								

FAN #6 CASRTU4-1.600-30MF-30T-DDAS - HEATER (DDAS-RTU2)

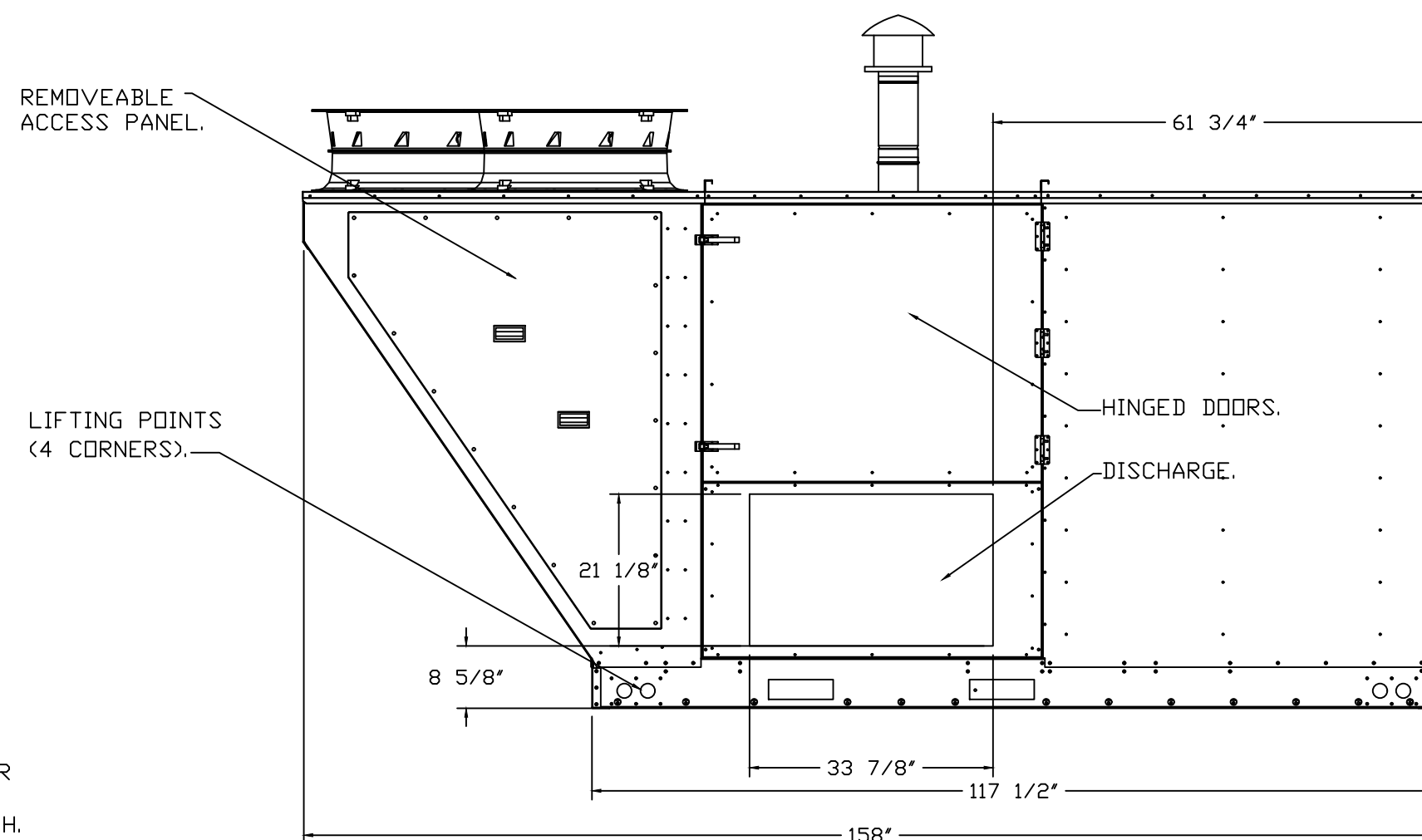
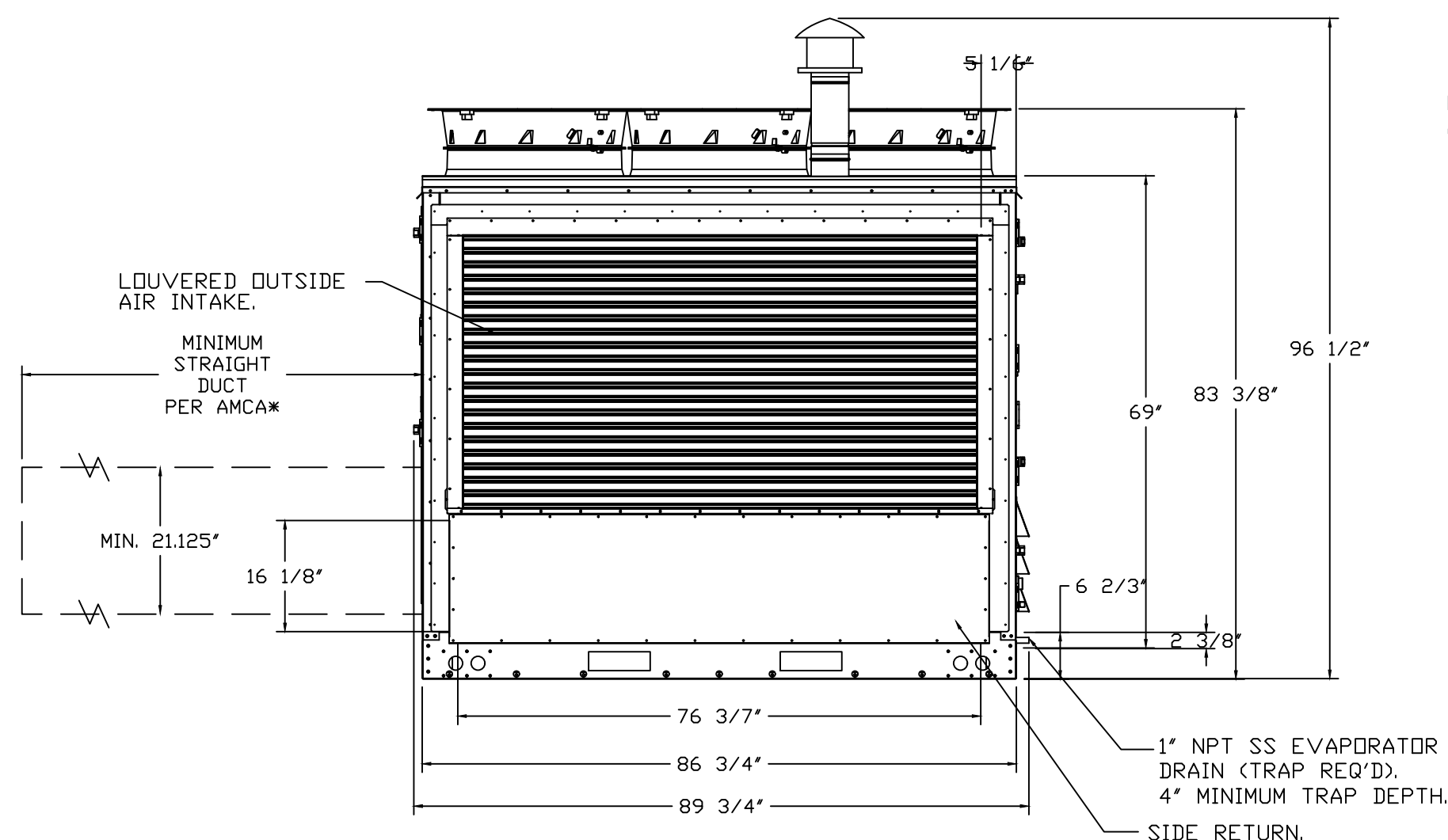


- NOTES:
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
 - DENOTES CORNER WEIGHT.



COOKLINE AREAS

UNIT MOUNTED ON UPPER ROOF AND DUCTED DOWN TO SUPPLY CONDITIONING TO SPACE & ALSO OUTSIDE AIR AS HOOD SYSTEMS ARE TURNED ON. SUPPLY AIR IS DISTRIBUTED THROUGHOUT SPACE WITH CEILING DIFFUSERS. ALSO HAS DUCT RETURN TO ASSIST IN CONDITIONING SPACE.



*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 33.875" x 21.125".

TAG	QTY	DESCRIPTION
	1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
	1	INLET PRESSURE GAUGE, 0-35"
	2	RTU TOTAL CFM MONITORING
	1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, #MA, 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	2" MERV 13 FILTERS FOR RTU4 (QTY. 12)
	1	2" MERV 8 FILTERS FOR RTU4 (QTY. 12)
	1	OVERHEAT STAT
	1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
	1	CLOGGED FILTER SWITCH - NOTIFICATION ON HMI
	1	RTU4 SIDE DISCHARGE
DDAS-RTU2	1	30 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
	1	30 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL
	1	OCCUPIED SCHEDULING
	1	RTUVZH170 COMPRESSOR SOUND BLANKET 230V - FACTORY INSTALLED
	1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS
	1	RTU4 CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J-BOX
	1	VAV PACKAGE W/ MANUAL/DDC CONTROL (571 VFD INCLUDED)
	1	LINE REACTOR MOUNTED IN FAN
	1	RTU INTAKE/RETURN DAMPER - STATIC PRESSURE CONTROL
	1	RTU4 SIDE RETURN
	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)

REVISIONS

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CAPTIVEAIRE

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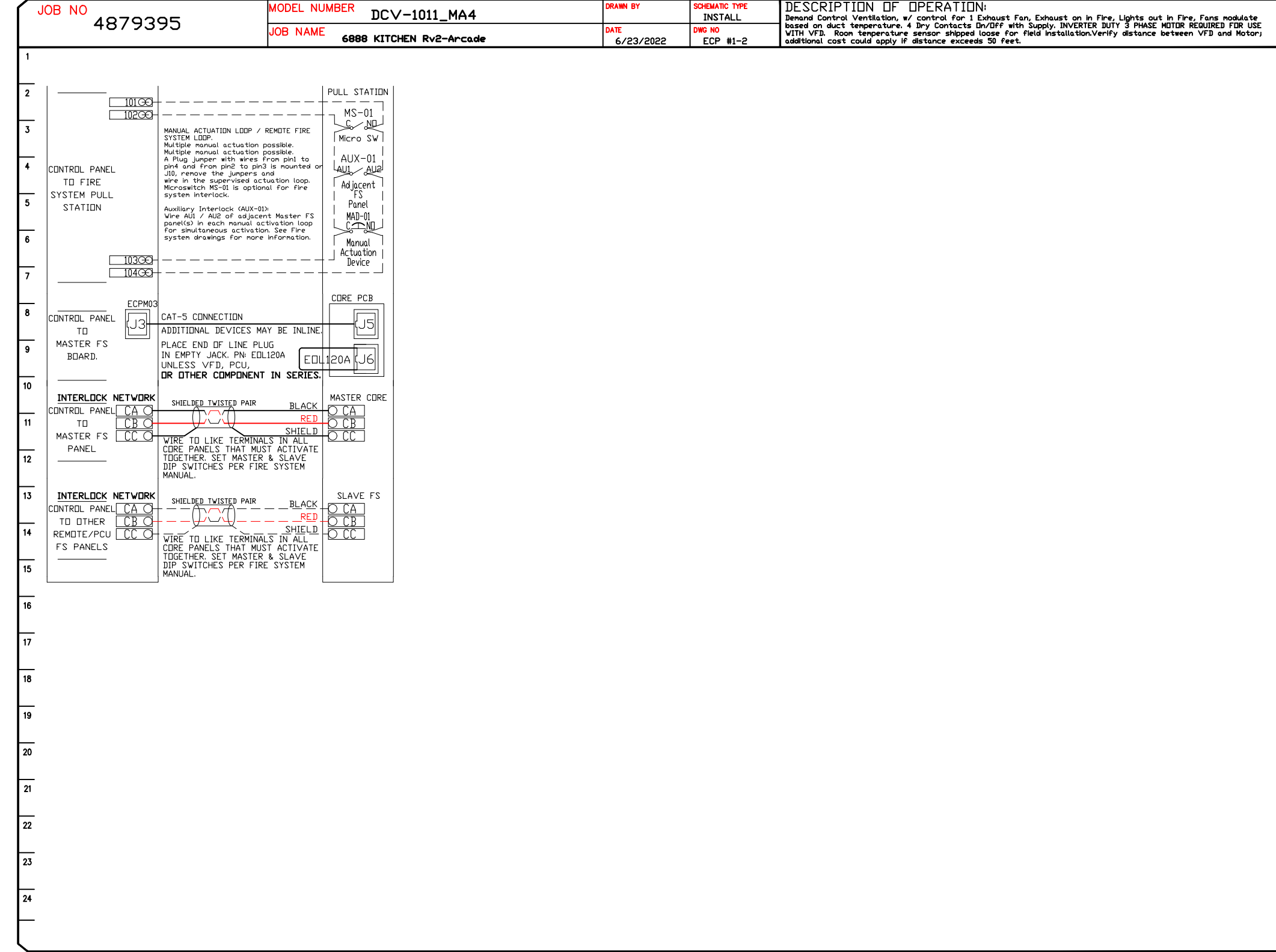
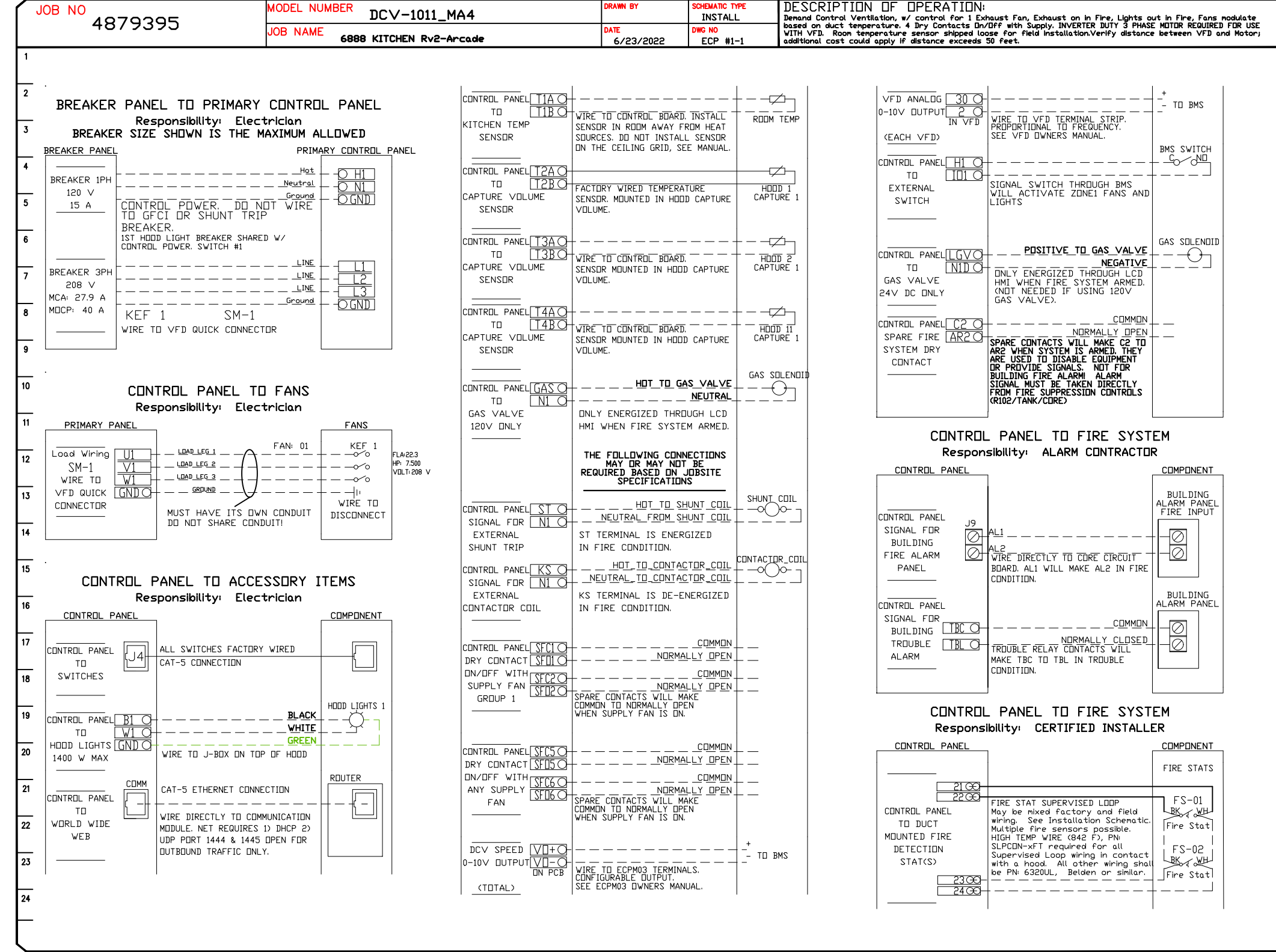
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MASTER DRAWING

SHEET NO. 9

CT113, CT110 & CT116

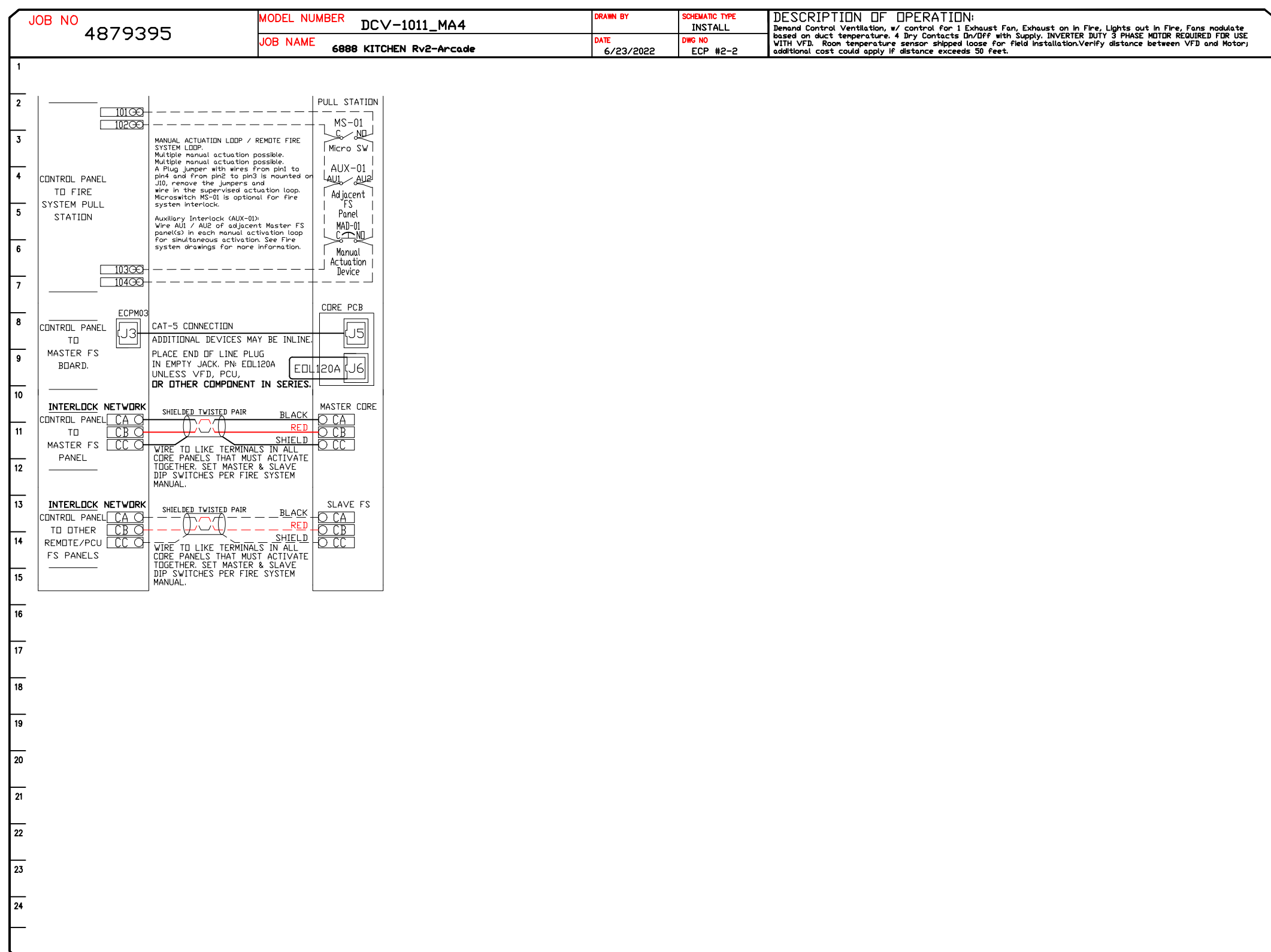
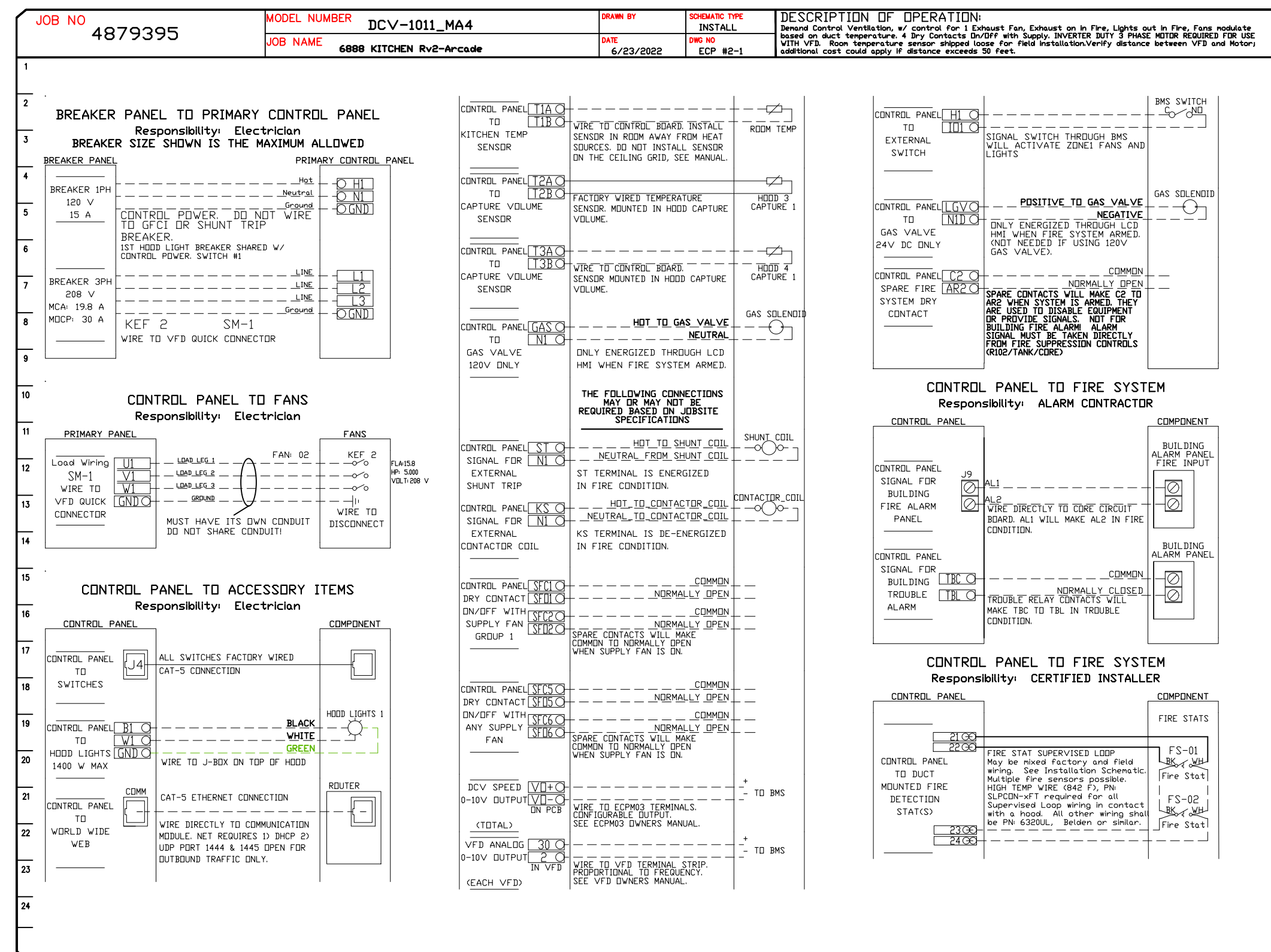
ELECTRICAL PACKAGE - JOB#4879395

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLT	FLA	
1	ECP1	DCV-1011_MA4	UTILITY CABINET RIGHT	04 - UTILITY CABINET RIGHT	1 LIGHT	SMART CONTRLS DCV	KEF 1	EXHAUST	3	7.500	208	22.3
				HOOD # 1	1 FAN							
				03 - UTILITY	1 LIGHT							

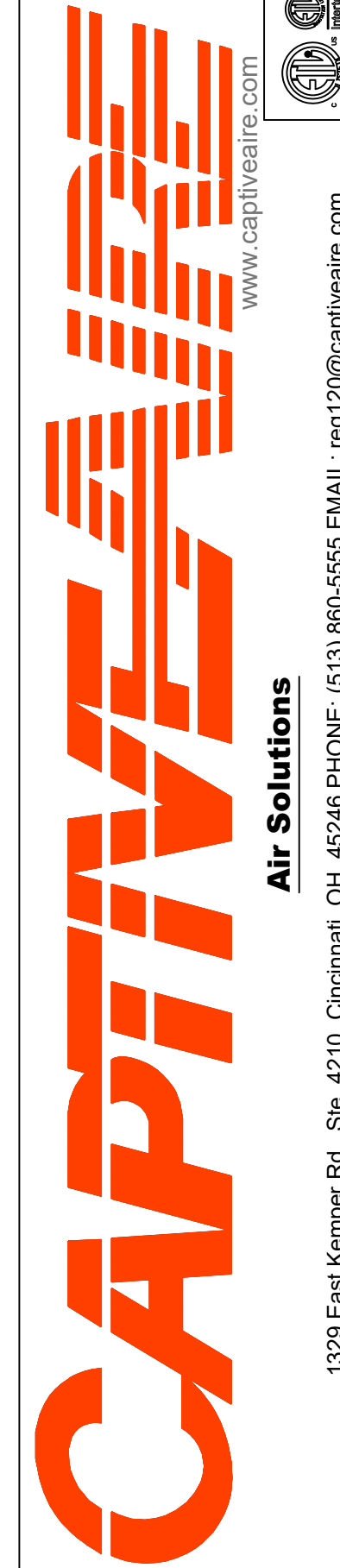


CT111 & CT109

NO	TAG	PACKAGE #	LOCATION	CABINET LEFT		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLT	FLA	
2	ECP2	DCV-1011_MA4	UTILITY CABINET LEFT	HOOD # 3	1 FAN	SMART CONTRLS DCV	KEF 2	EXHAUST	3	5.000	208	15.8



REVISIONS	
DESCRIPTION	DATE



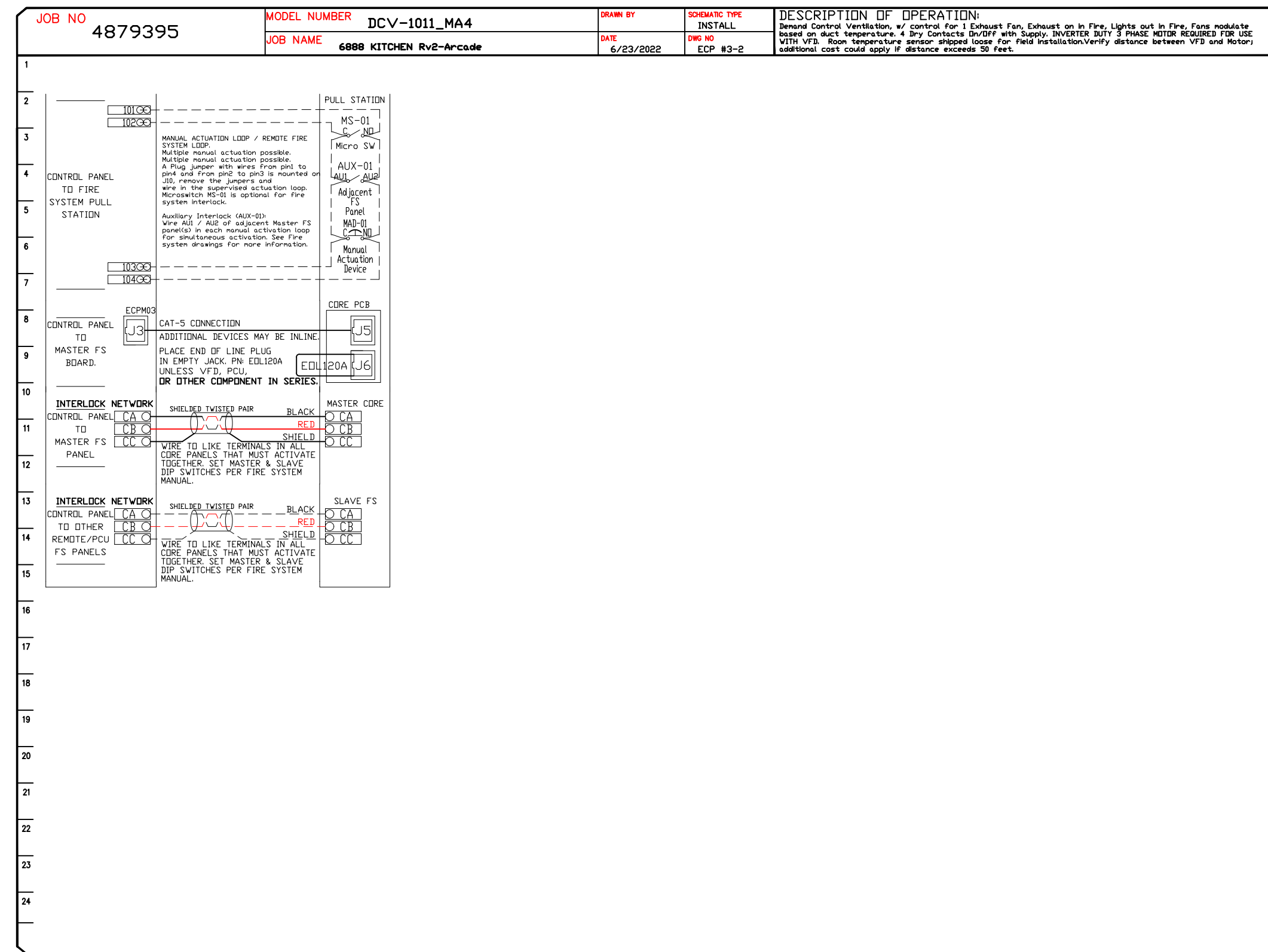
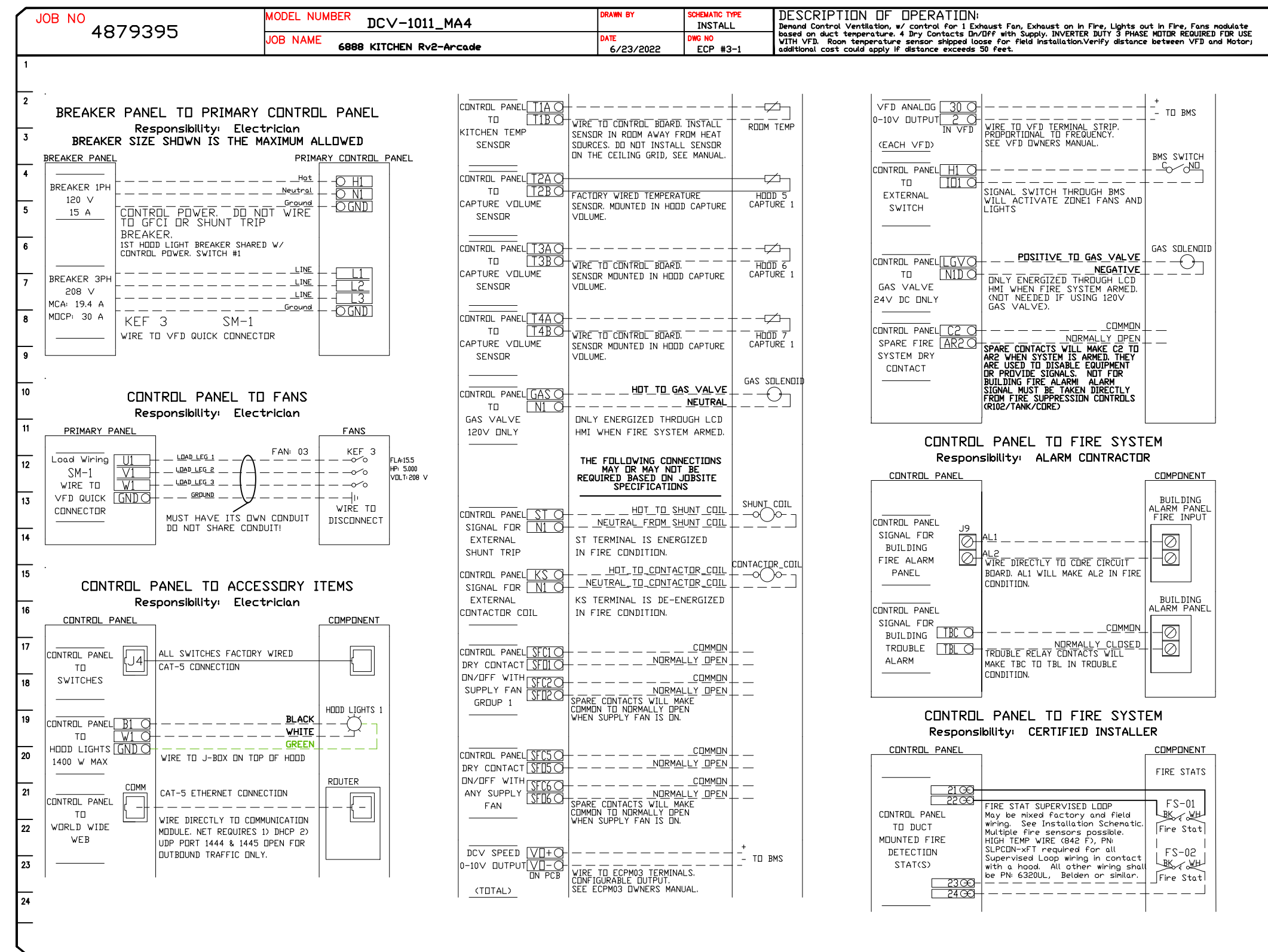
6888 KITCHEN Rv2-Arcade
42 S Ludlow St,
Dayton, OH, 45402

DATE: 6/23/2022
DWG#: 4879395
DRAWN BY: jcirilli
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 10

CT114

ELECTRICAL PACKAGE - JOB#4879395

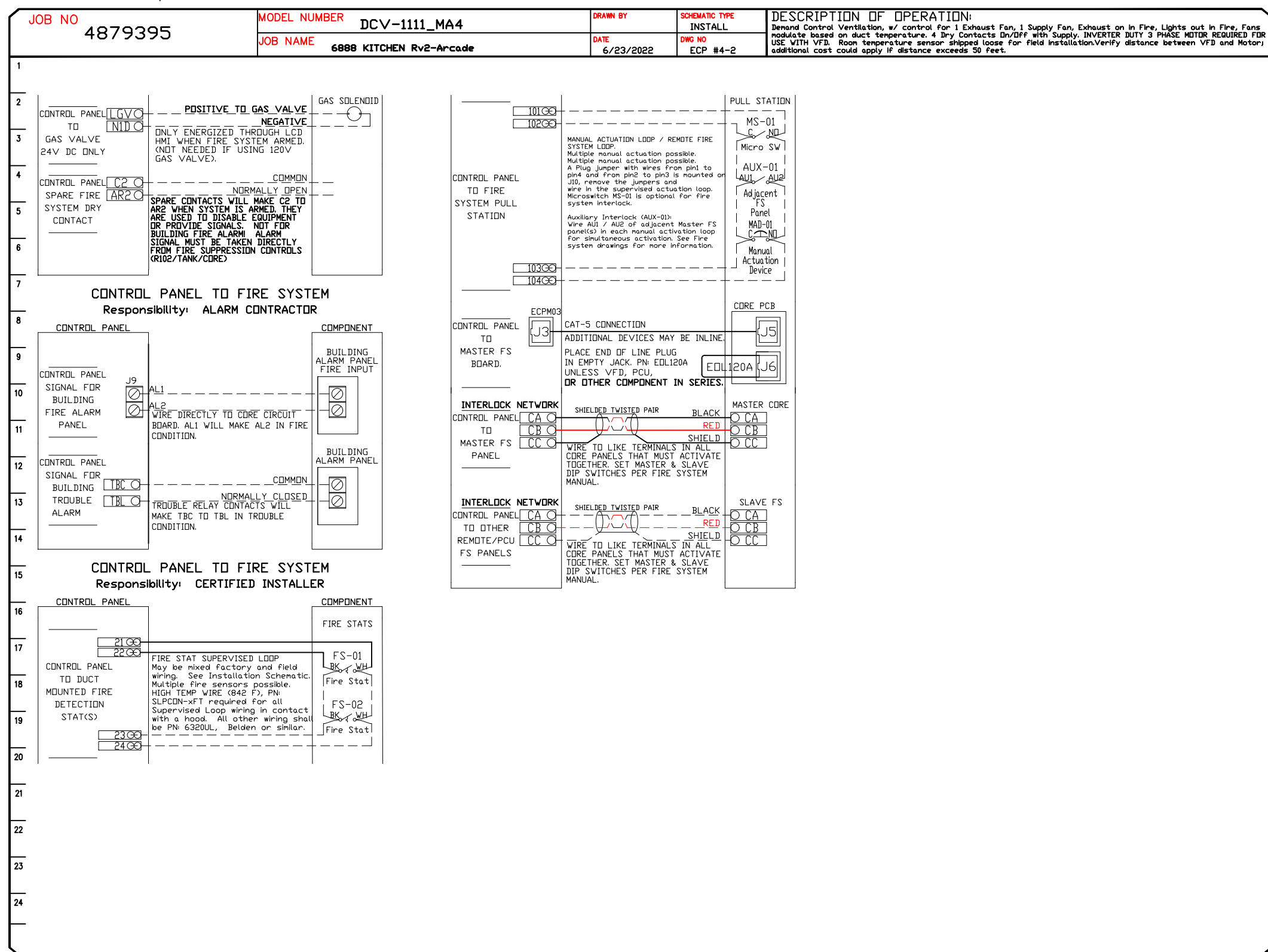
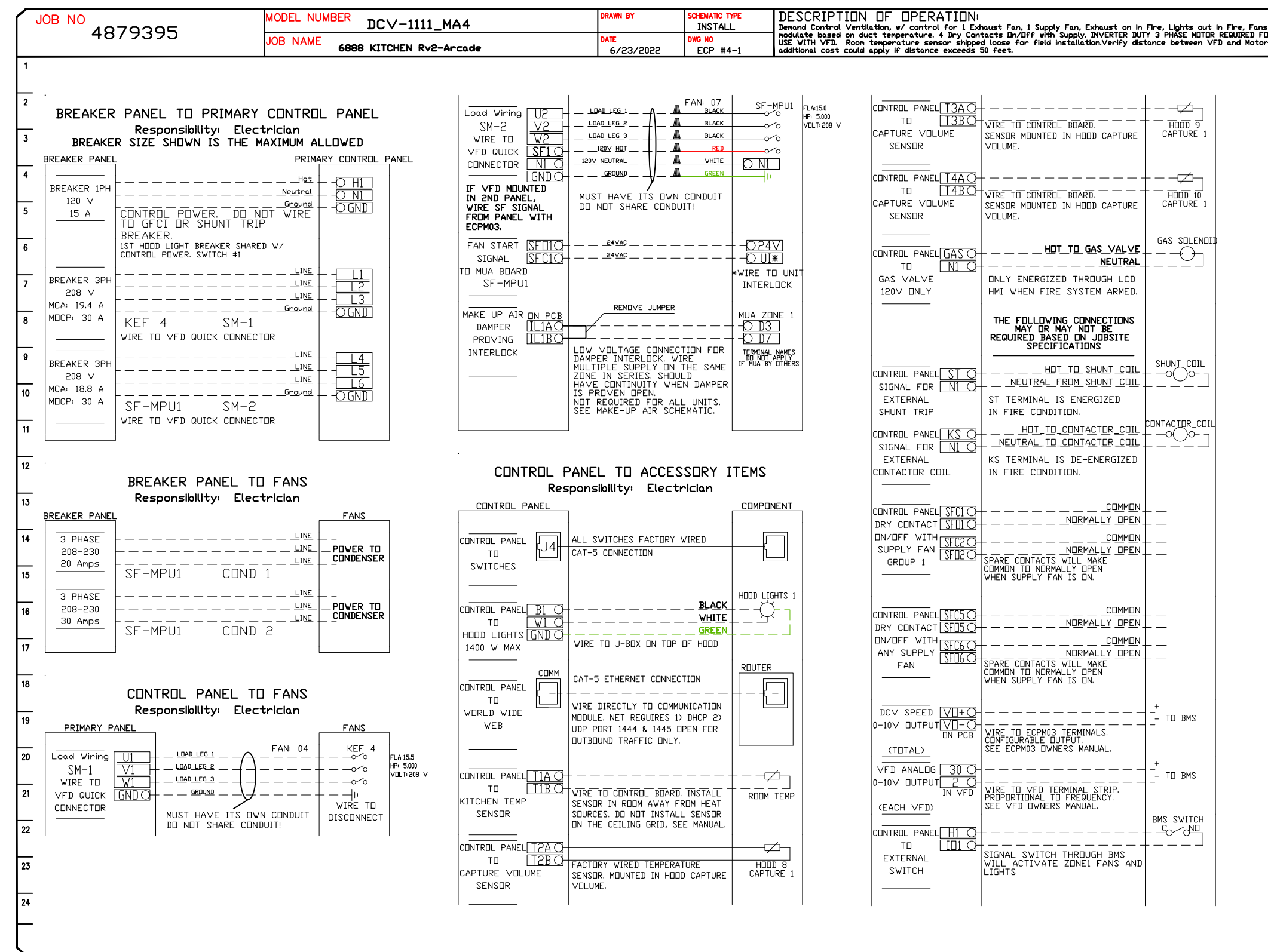
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				LOCATION	QUANTITY		FAN TAG	TYPE	Ø	HP	VOLT	FLA
3	ECP3	DCV-1011_MA4	UTILITY CABINET RIGHT	04 - UTILITY CABINET RIGHT	1 LIGHT	SMART CONTRLS DCV	KEF 3	EXHAUST	3	5.000	208	15.5
				HOOD # 5	1 FAN							



CT114

ELECTRICAL PACKAGE - JOB#4879395

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Ø	HP	VOLT	FLA
4	ECP4	DCV-1111_MA4	UTILITY CABINET LEFT	03 - UTILITY CABINET LEFT	1 LIGHT	SMART CONTRLS DCV	KEF 4	EXHAUST	3	5.000	208	15.5
				HOOD # 8	1 FAN		SF-MPUI	SUPPLY	3	5.000	208	15.0



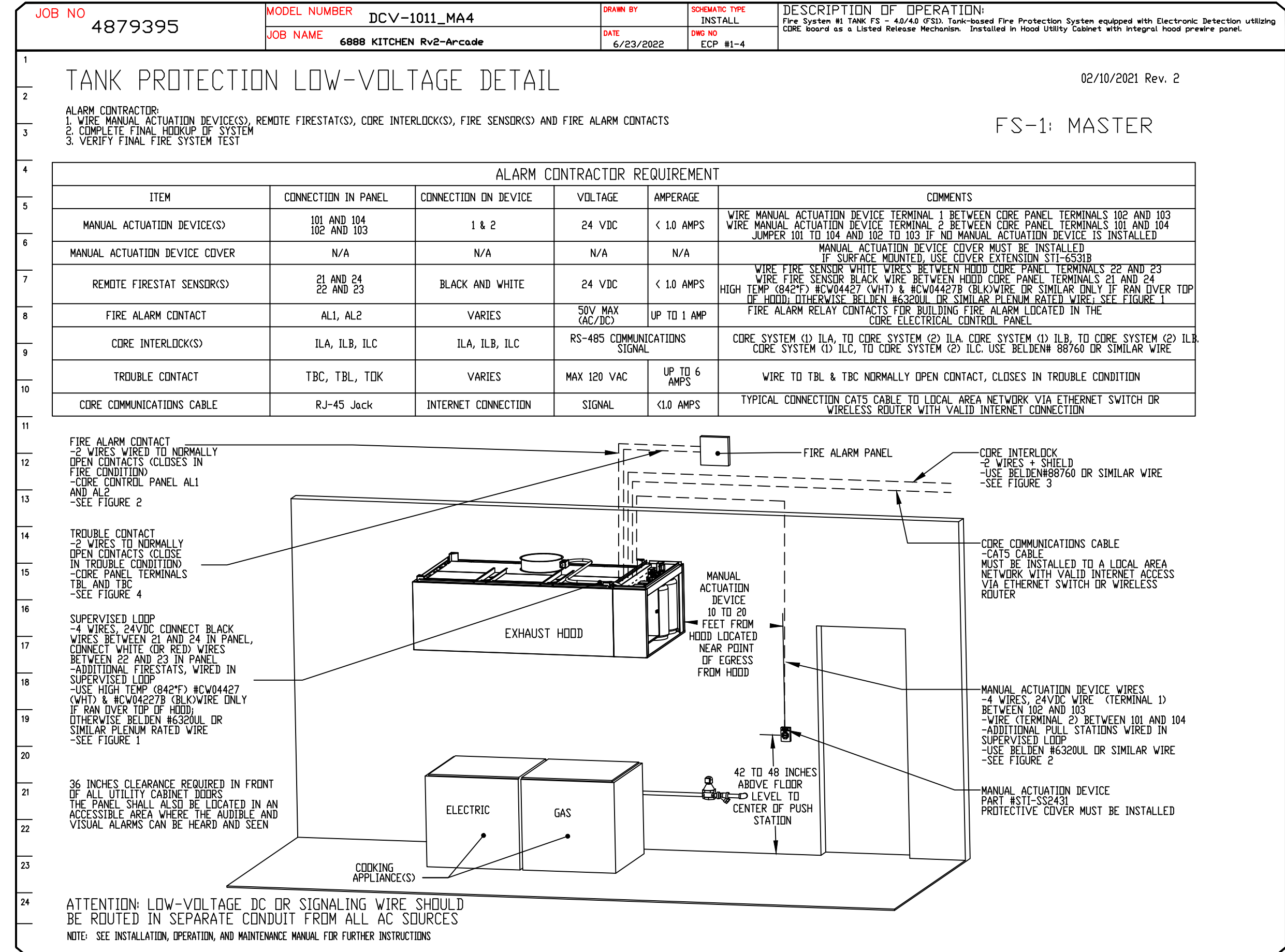
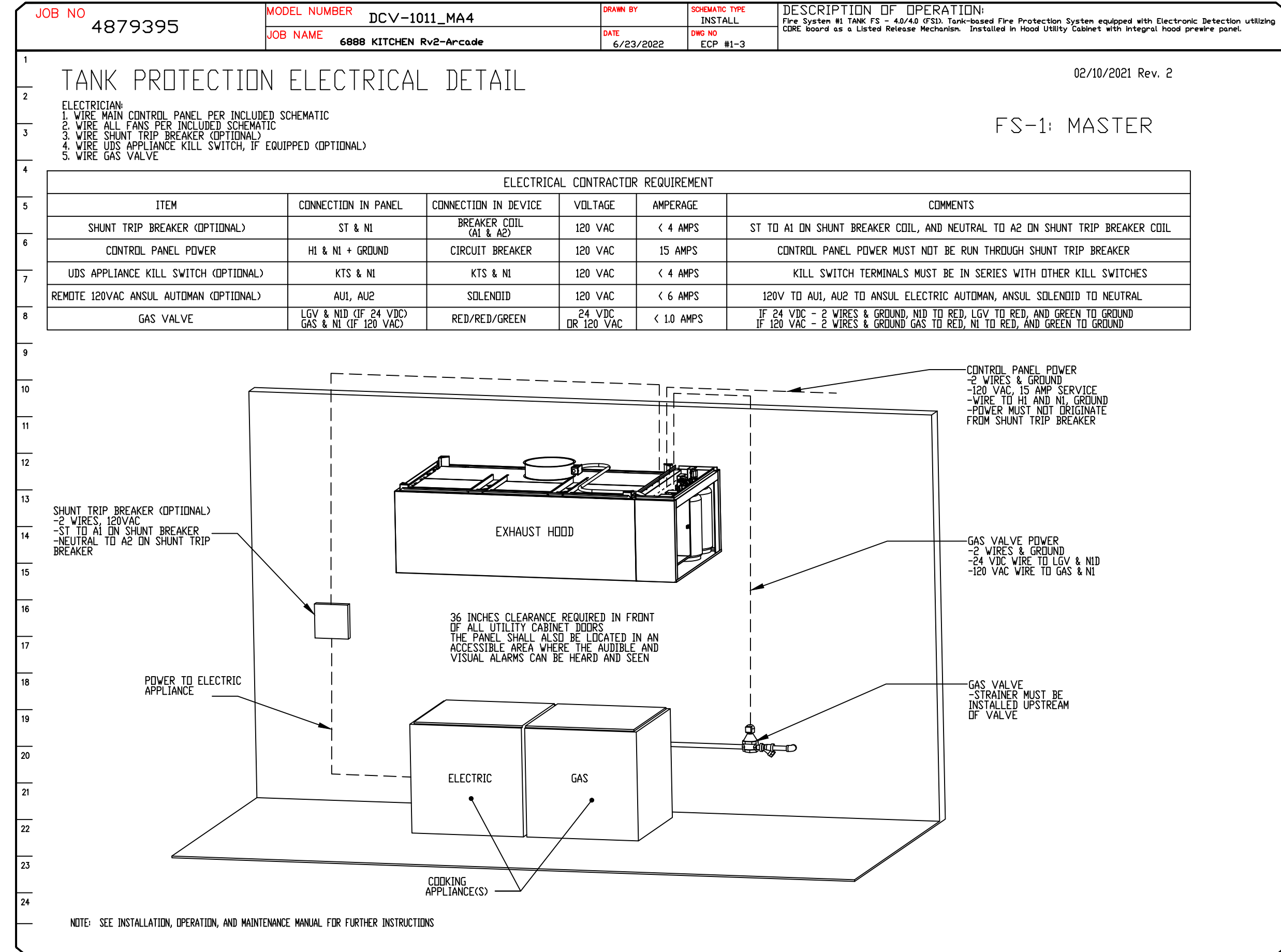
REVISIONS	
DESCRIPTION	DATE



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DATE: 6/23/2022
DWG.#: 4879395
DRAWN BY: jcirilli
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 11

TYPICAL FIRE SYSTEM ARRANGEMENT FOR THE HOOD SYSTEM. SYSTEM'S ARE DESIGNED TO ALLOW FOR COOKING EQUIPMENT TO BE SWITCHED AROUND UNDER THE HOOD WITHOUT RE-PIPING OF HOOD SYSTEM OR NEW PERMITS.



REVISIONS

DESCRIPTION	DATE

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

6888 KITCHEN Rv2-Arcade
42 S Ludlow St,
Dayton, OH, 45402

DATE: 6/23/2022
DWG.#: 4879395
DRAWN BY: jcirilli
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
12

GREASE DUCT SPECIFICATION

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.

DUCTWORK #1 SE VIEW
DUCT RUN

FOR HOOD(S) GROUP 1,3, &
11. OTHER GROUP 2 & 4

PRELIMINARY ONLY

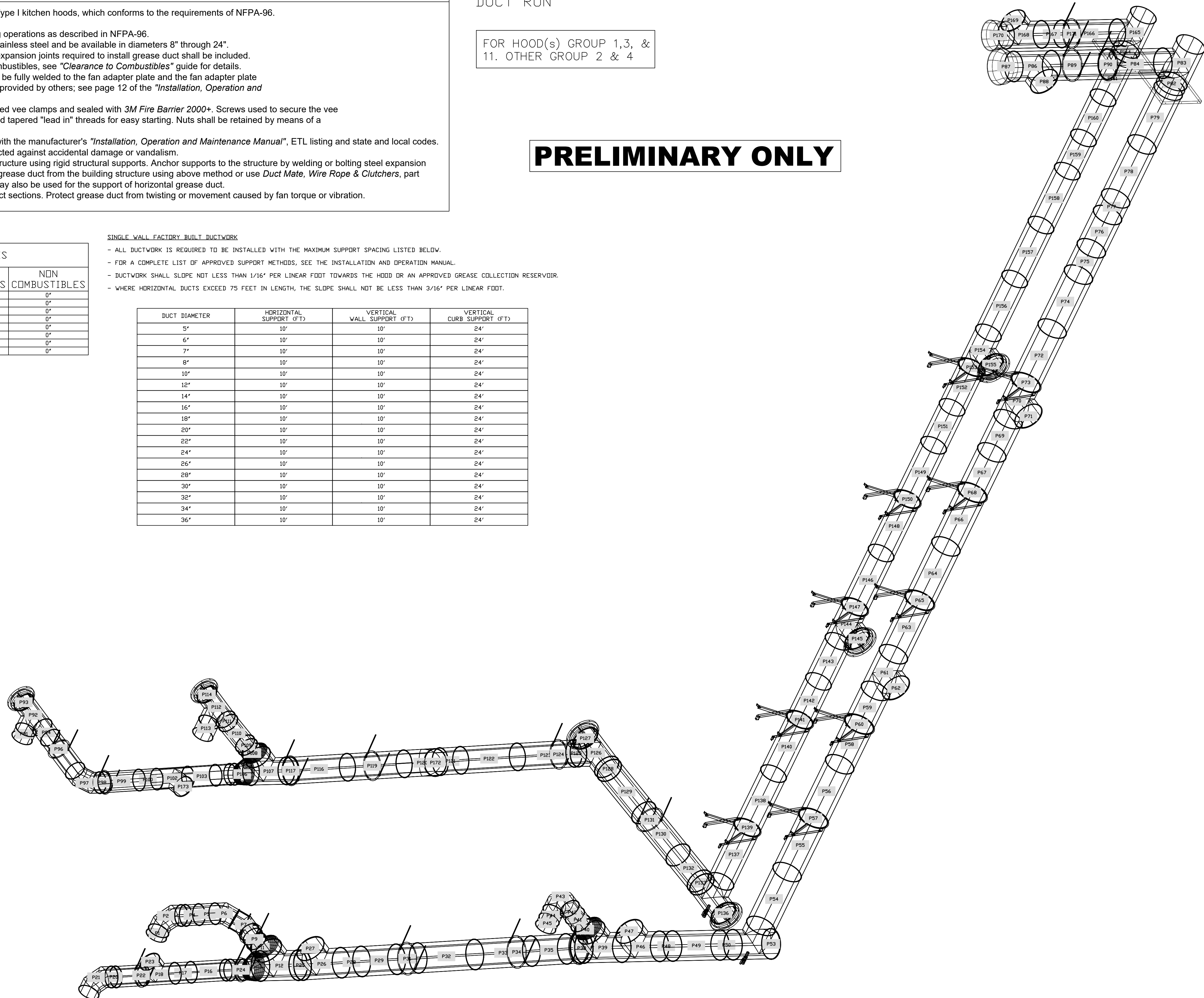
CLEARANCE TO COMBUSTIBLES			
DIAMETER	COMBUSTIBLES	LIMITED COMBUSTIBLES	NON COMBUSTIBLES
8"	18"	3"	0"
10"	18"	3"	0"
12"	18"	3"	0"
14"	18"	3"	0"
16"	18"	3"	0"
18"	18"	3"	0"
20"	18"	3"	0"
24"	18"	3"	0"

ADJUSTABLE DUCT OVERLAP - MINIMUM	
DIAMETER	OVERLAP
8"	4"
10"	5"
12"	6"
14"	6"
16"	6"
18"	6"
20"	6"
24"	6"

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

www.captiveair.com
Air Solutions
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45216 PHONE: (513) 860-5555 EMAIL: req12@captivair.com

6888 KITCHEN Rv2-Arcade
42 S Ludlow St,
Dayton, OH, 45402

DATE: 6/23/2022

DWG.#: 4879395

DRAWN BY: jcirilli

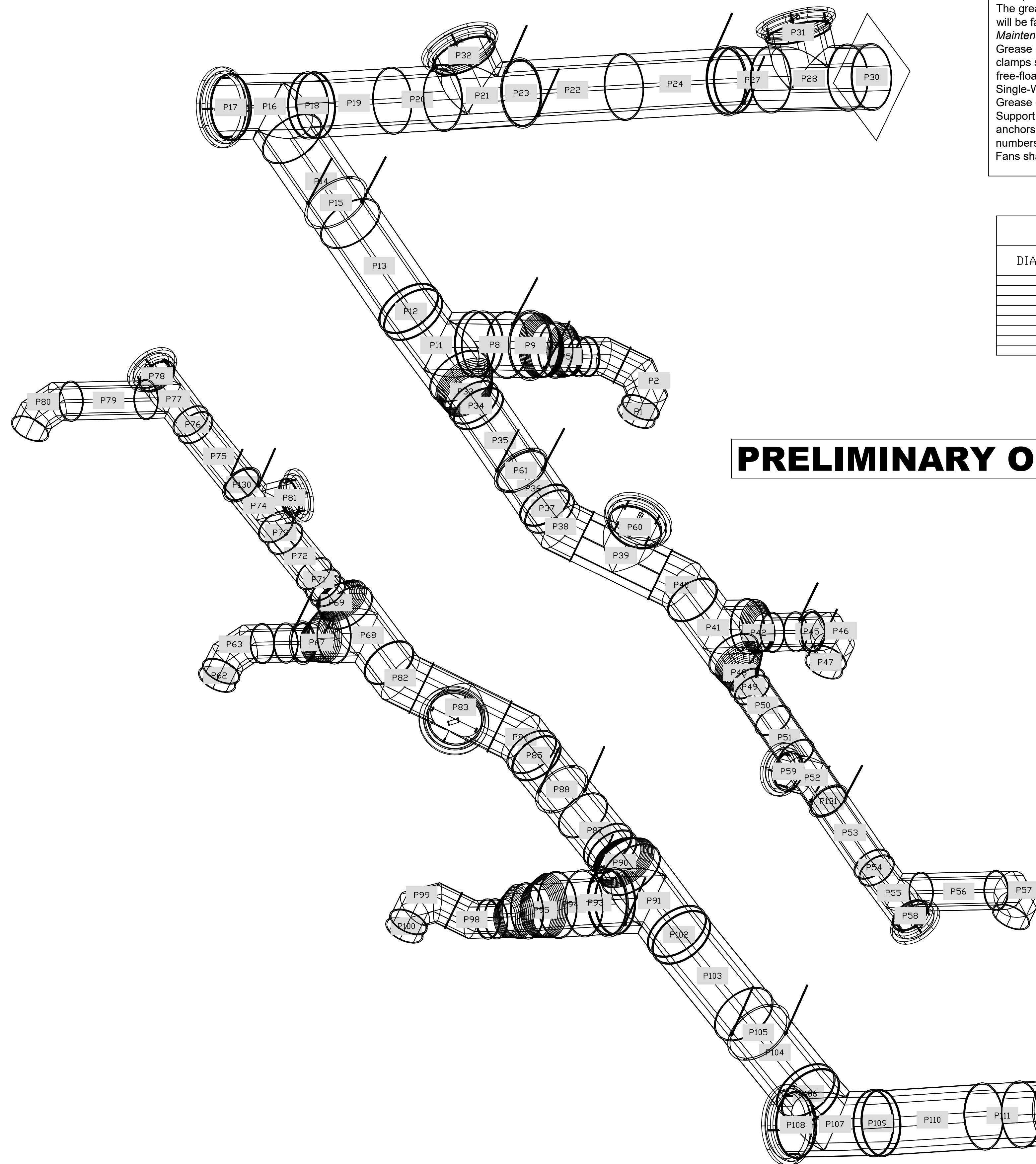
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 13

DUCTWORK #2 SE VIEW
DUCT RUN 2

FOR HOODS 5, 6, 7, 8, 9, & 10



PRELIMINARY ONLY

GREASE DUCT SPECIFICATION

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CLEARANCE TO COMBUSTIBLES			
DIAMETER	COMBUSTIBLES	LIMITED COMBUSTIBLES	NON COMBUSTIBLES
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10"	18"	3'	0'
12"	18"	3'	0'
14"	18"	3'	0'
16"	18"	3'	0'
18"	18"	3'	0'
20"	18"	3'	0'
24"	18"	3'	0'

ADJUSTABLE DUCT OVERLAP - MINIMUM	
DIAMETER	
8"	
10"	
12"	
14"	
16"	
18"	
20"	
24"	

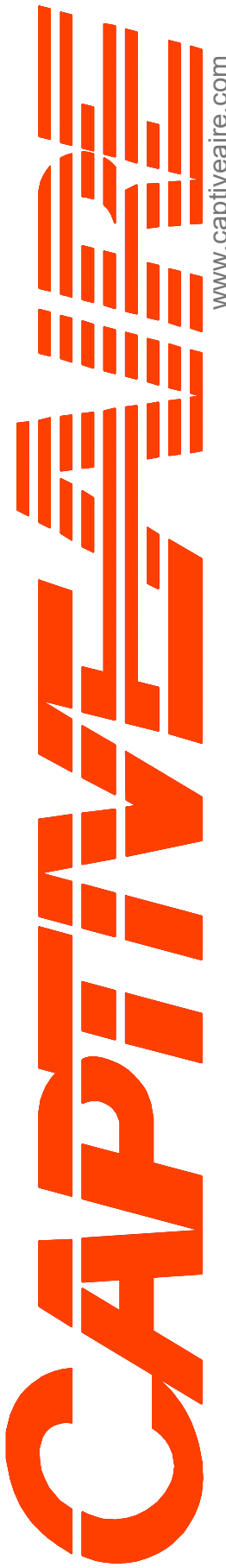
SINGLE WALL FACTORY BUILT DUCTWORK

- 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'
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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	
DESCRIPTION	DATE



Air Solutions

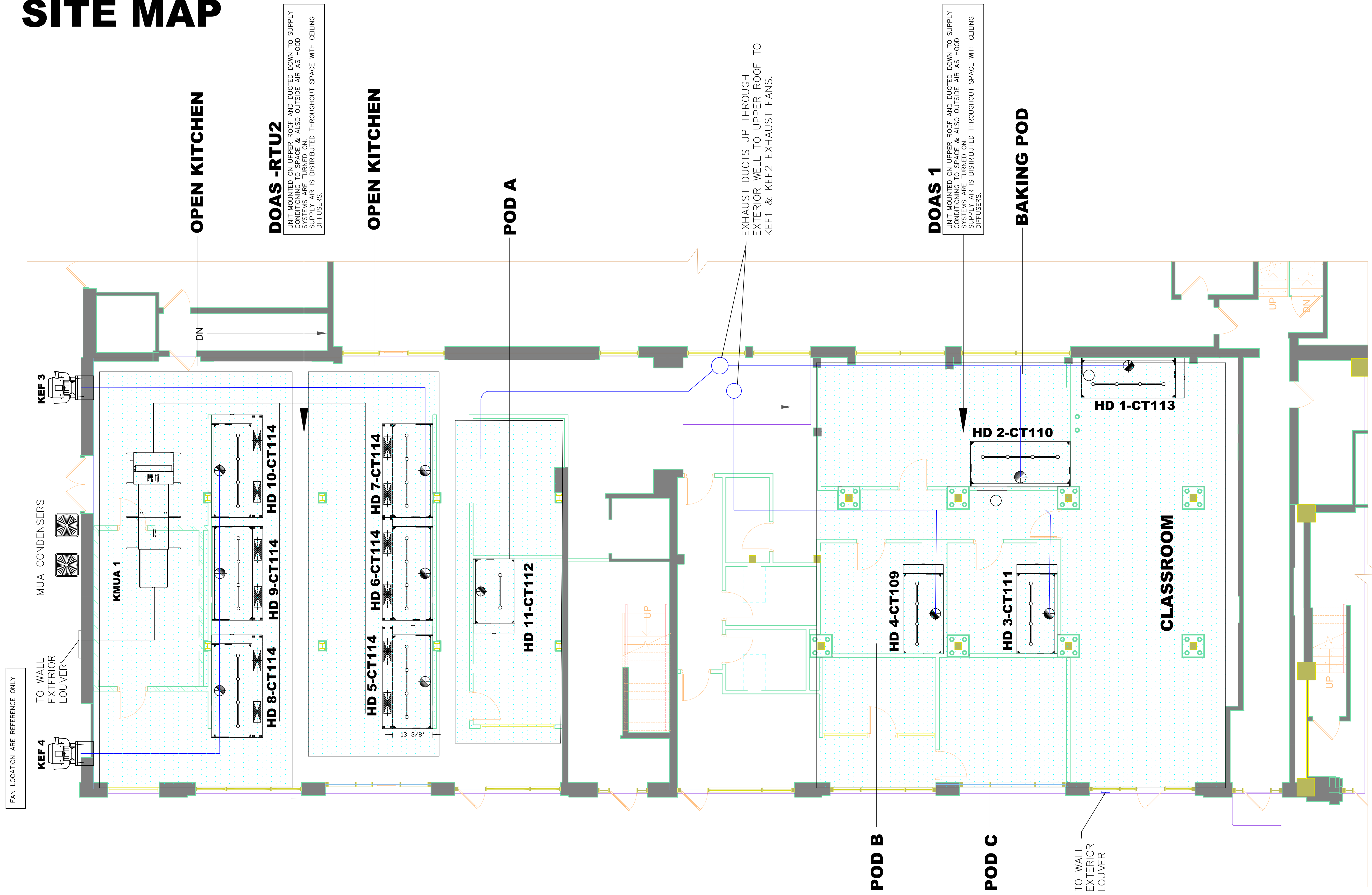
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg12@captivaire.com

6888 KITCHEN Rv2-Arcade
42 S Ludlow St,
Dayton, OH, 45402

DATE: 6/23/2022
DWG.#: 4879395
DRAWN BY: jcirilli
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 14

SITE MAP



REVISIONS	
DESCRIPTION	DATE

CAPTIVE AIR
www.captiveair.com

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

6888 KITCHEN Rv2-Arcade
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DATE: 6/23/2022

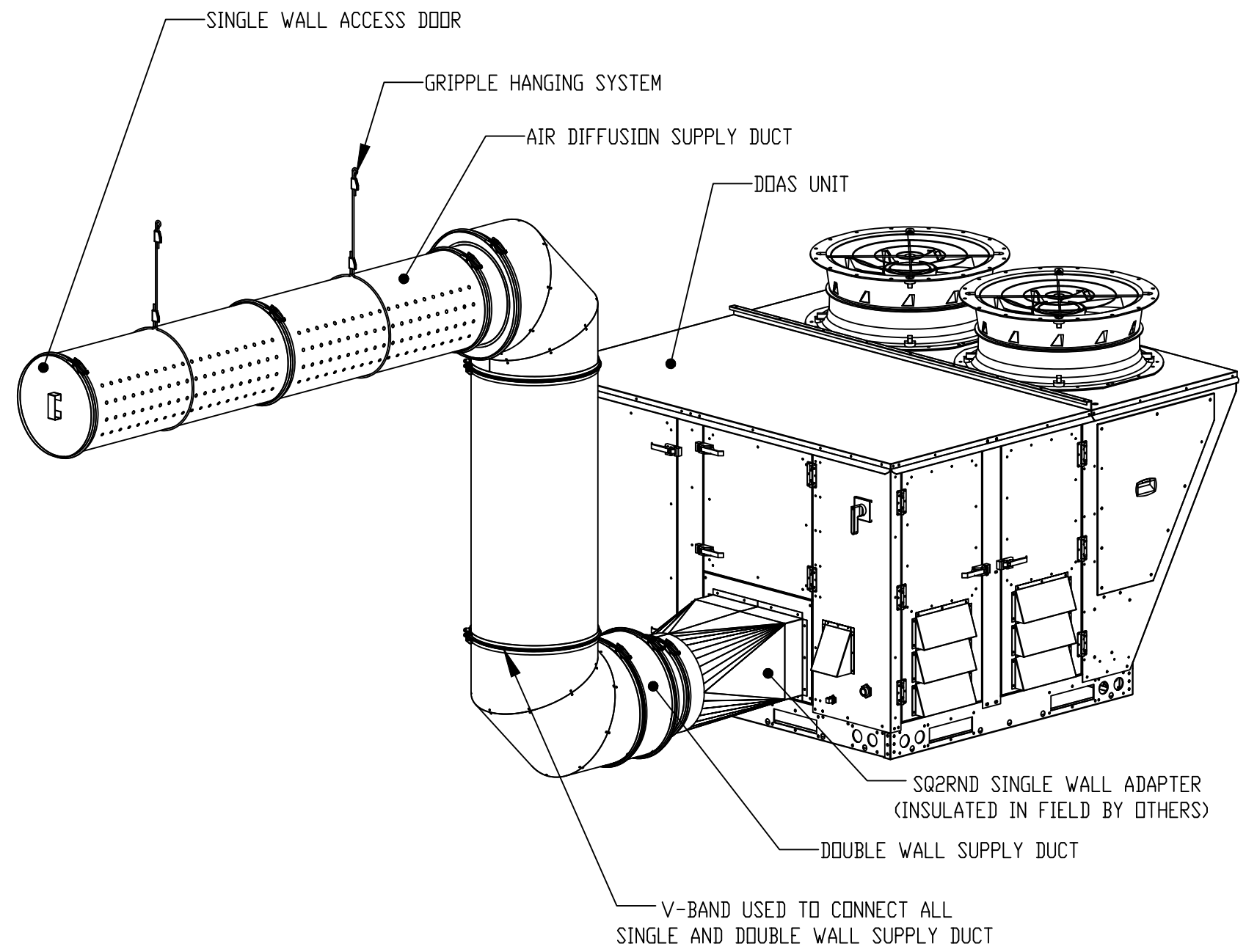
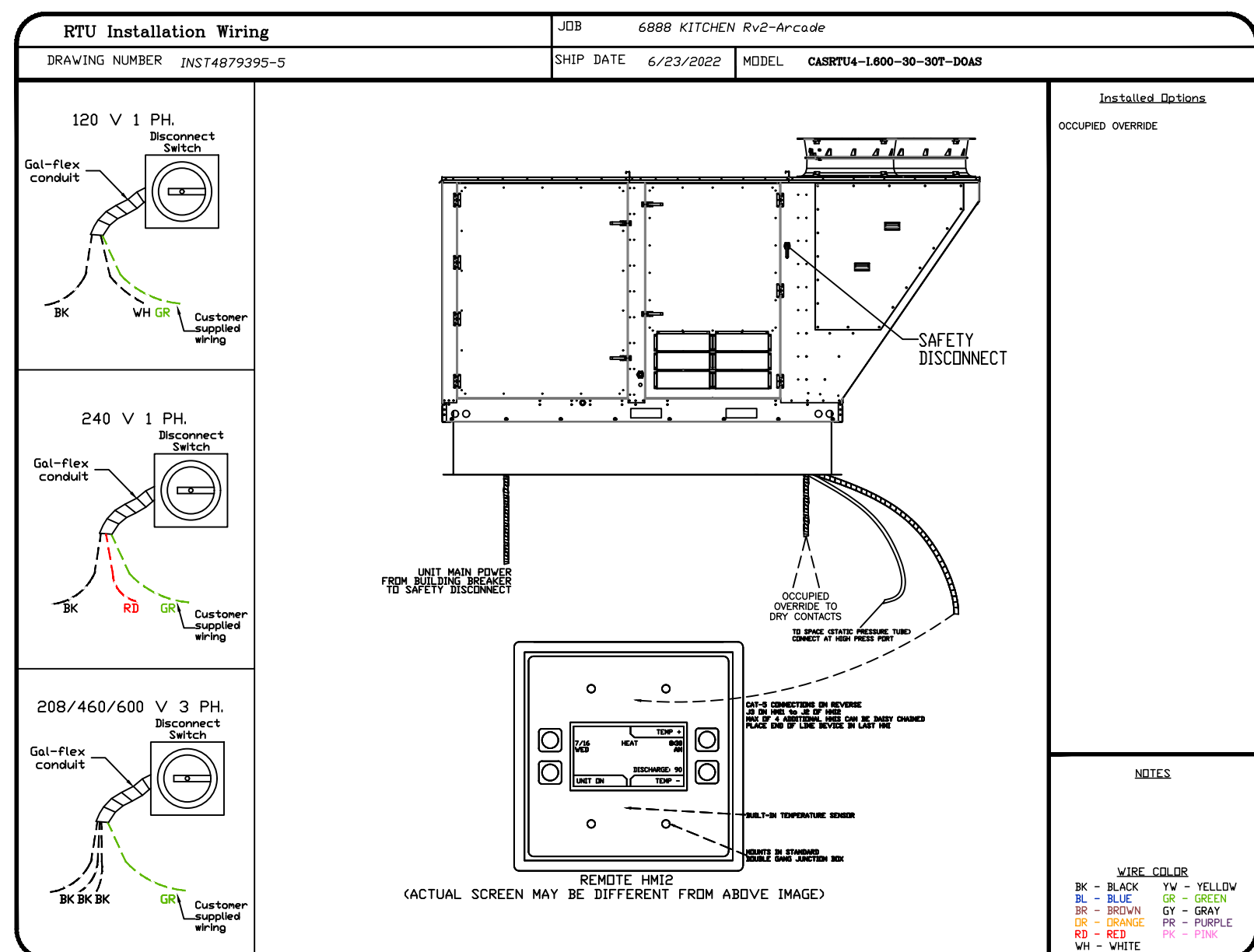
DWG.#: 4879395

DRAWN BY: jcirilli

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

MASTER DRAWING

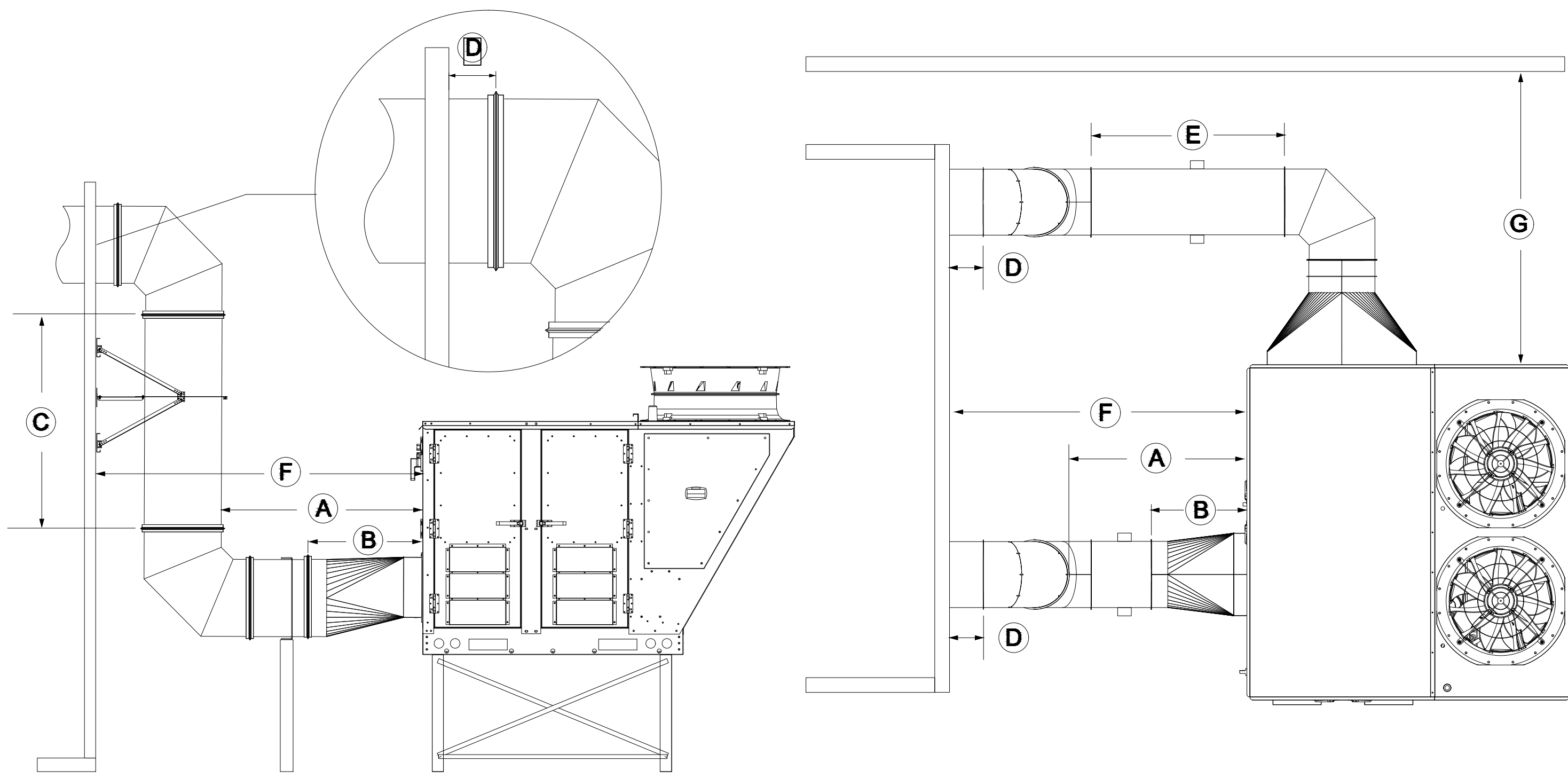
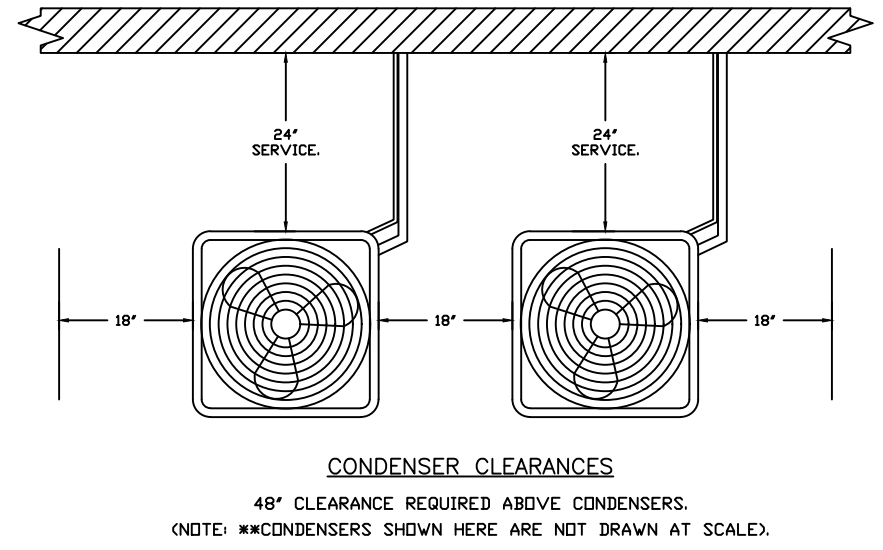
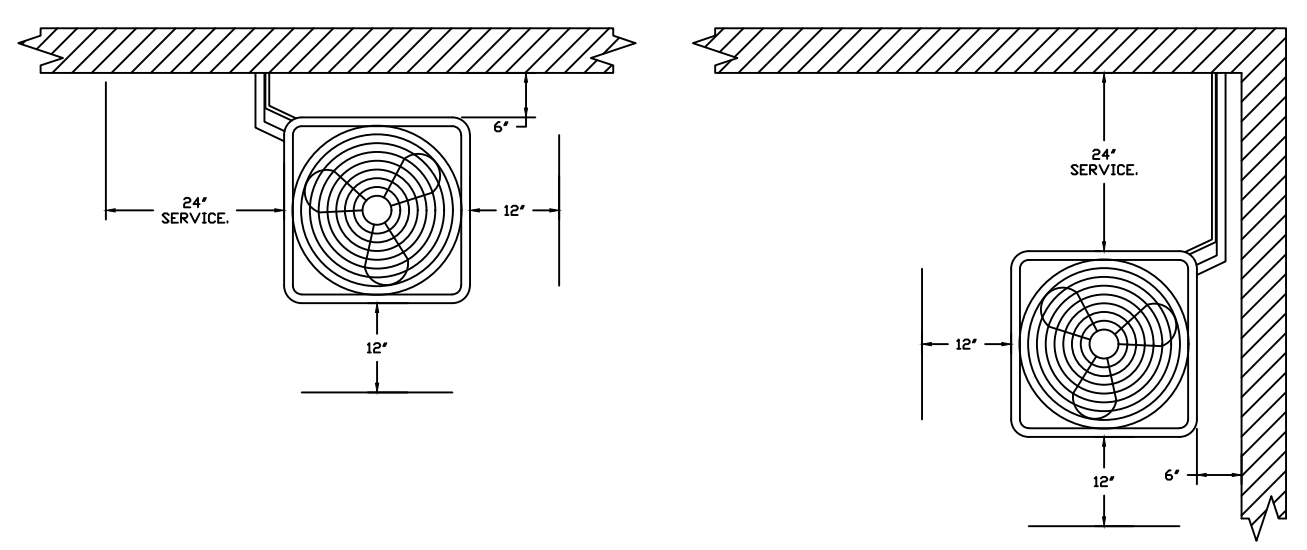
SHEET NO.
15



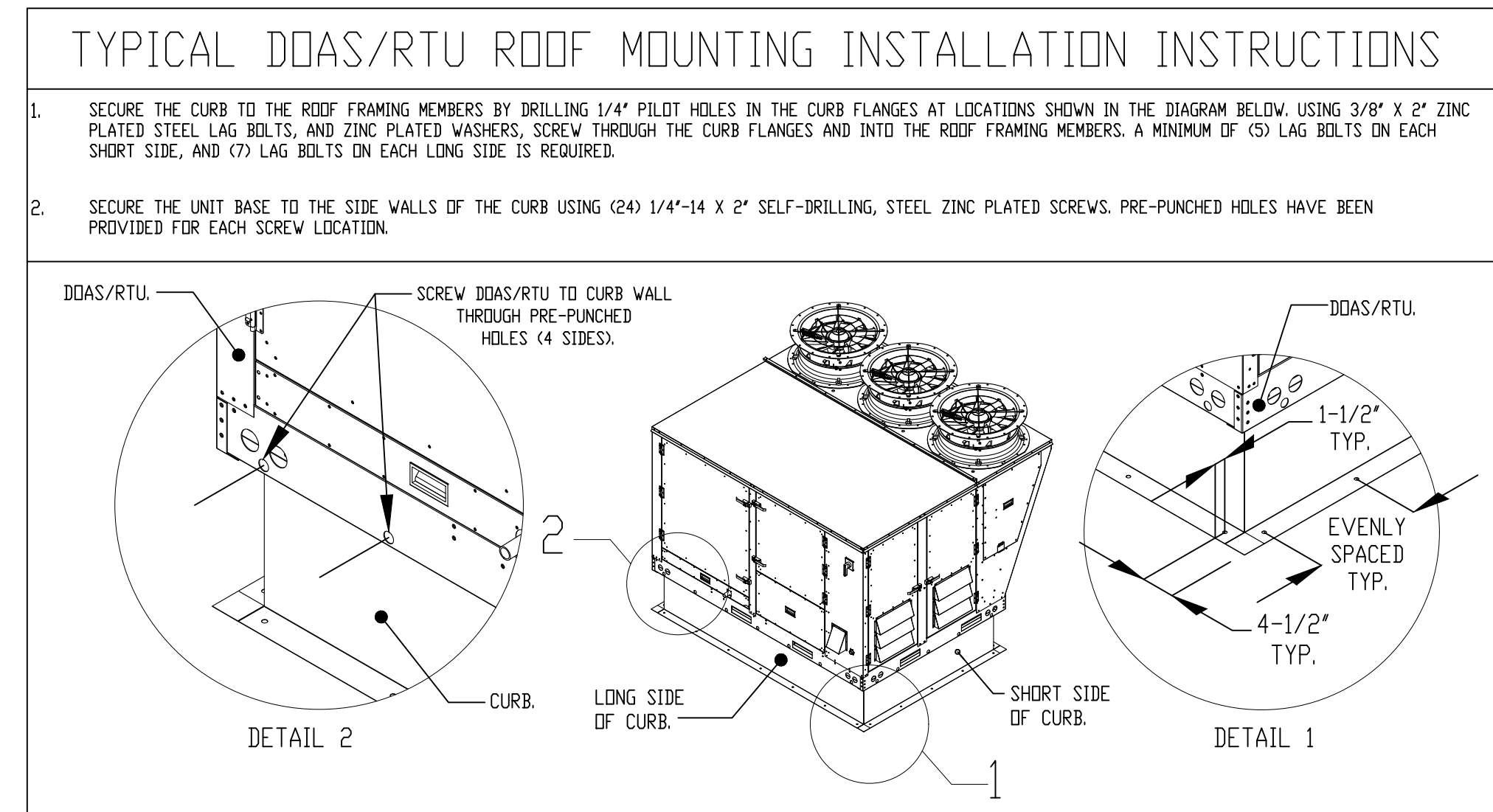
AIR DIFFUSION SUPPLY DUCT SPECIFICATIONS:
 PROVIDE AIR DIFFUSION SUPPLY DUCT EQUAL TO CAPTIVEAIR SYSTEMS MODEL DW-S0(HC), DW-S90(HC), & DW-S180(HC).
 THREE DISTINCT HOLE PATTERN OPTIONS TO COVER A VARIETY OF CEILING HEIGHTS.
 NO ADDITIONAL DIFFUSERS REQUIRED, AS THE DUCT ITSELF PROVIDES AIR DIFFUSION.
 MADE OF HIGH QUALITY STAINLESS STEEL DESIGNED TO LAST 20+ YEARS.
 HIGH INDUCTION SUPPLY DUCT IS CONSTRUCTED USING 24 GAUGE, 430 SS - 5' THRU 24'.
 HIGH INDUCTION SUPPLY DUCT IS CONSTRUCTED USING 20 GAUGE, 430 SS - 26' THRU 36'.
 QUICK ONSITE ASSEMBLY USING EPDM GASKETS & UNIVERSAL V-BANDS.
 DOUBLE WALL SUPPLY DUCT AVAILABLE FOR INTERIOR AND EXTERIOR SPACES, EITHER CONDITIONED OR UNCONDITIONED.
 DOUBLE WALL SUPPLY DUCT AVAILABLE IN DW-1S, DW-2S, & DW-3S TO MEET SPECIFIC REGIONAL 'R' VALUE REQUIREMENTS.

Insulation R-Value Recommendations		
Supply Duct Type	Minimum R-value	Space Type
Single Wall - S & -HC	N/A	Conditioned Space Only
Double Wall - 1S	R-4	Unconditioned Interior Space Only
Double Wall - 2S	R-8	Unconditioned Space Climate Zones 1-4
Double Wall - 3S	R-12	Unconditioned Space Climate Zones 5-8

DOUBLE WALL SUPPLY DUCT IS INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.
 AIR DIFFUSION SUPPLY DUCT COMPLIES WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS) BEST PRACTICES.
 POSITIONING OF SPRINKLERS TO AVOID OBSTRUCTION TO DISCHARGE, SEE NFPA 13, TABLE 8.12.5.1.1.



Side Discharge Requirements						
Unit Size	Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Dim. G
Size 3	2'-1 1/2"	2'-0"	10'-0"	0'-4"	15' SW / 8' DW	5'-10"
Size 4	4'-0 1/2"	2'-0"	10'-0"	0'-4"	15' SW / 8' DW	8'-2"



REVISIONS

DESCRIPTION	DATE

CAPTIVEAIR
 Air Solutions
 www.captiveaire.com
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SHEET NO. 16