HOOD INFORMATION – JOB#4945847

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1	HD1 LEFT	5424 ND-2-PSP-F	CAPTIVEAIRE	13′ 6″	600 DEG	I	HEAVY	200	2700			4″	12″	1350	1719	-0.850″	2160	430 SS 100%	LEFT	ALONE
												4″	12″	1350	1719	-0.850″				
2	HD2 RIGHT	5424 ND-2-PSP-F	CAPTIVEAIRE	13′ 6″	600 DEG	I	HEAVY	200	2700			4″	12″	1350	1719	-0.850″	2241	430 SS 100%	RIGHT	ALONE
												4″	12″	1350	1719	-0.850″				
3	HD3 DISH	4824 VHB-G	CAPTIVEAIRE	7′ 0″	700 DEG	II	N/A	140	980			4″	12″	490	624	-0.044″	0	304 SS 100%	ALONE	ALONE
												4″	12″	490	624	-0.044″				

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

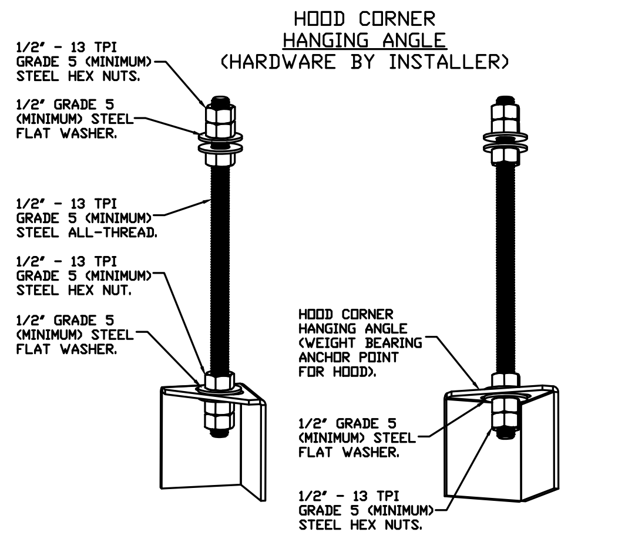
HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	HD1 LEFT	CAPTRATE SOLO FILTER	10	16″	16″	85% SEE FILTER SPEC	5	L55 SERIES E26	NO							YES	746 LBS
2	HD2 RIGHT	CAPTRATE SOLO FILTER	10	16″	16″	85% SEE FILTER SPEC	5	L55 SERIES E26	NO	RIGHT	20″x54″x24″	CORE PROTECTION	0	DCV-1111	1 LIGHT 1 FAN	YES	970 LBS
3	HD3 DISH						0									NO	257 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	HD1 LEFT	FIELD WRAPPER 16.00″ HIGH FRONT.
		BACKSPLASH 80.00″ HIGH X 344.00″ LONG 430 SS VERTICAL.
		LEFT 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.
		WC-CORE PROTECTION.
		SENSOR-CV.
2	HD2 RIGHT	FIELD WRAPPER 16.00″ HIGH FRONT, RIGHT.
		RIGHT QUARTER END PANEL 23″ TOP WIDTH, 0″ BOTTOM WIDTH, 23″ HIGH 430 SS.
		WC-CORE PROTECTION.
		SENSOR-CV.
3	HD3 DISH	FIELD WRAPPER 16.00″ HIGH FRONT, LEFT, RIGHT, BACK.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1	HD1 LEFT	Front	162″	14″	6″	MUA	10″	28″		720	0.202″
						MUA	10″	28″		720	0.202″
						MUA	10″	28″		720	0.202″
2	HD2 RIGHT	Front	182″	14″	6″	MUA	10″	28″		747	0.217″
						MUA	10″	28″		747	0.217″
						MUA	10″	28″		747	0.217″



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

SPECIFICATION: CAPTRATE• GREASE-STOP• SOLO FILTER

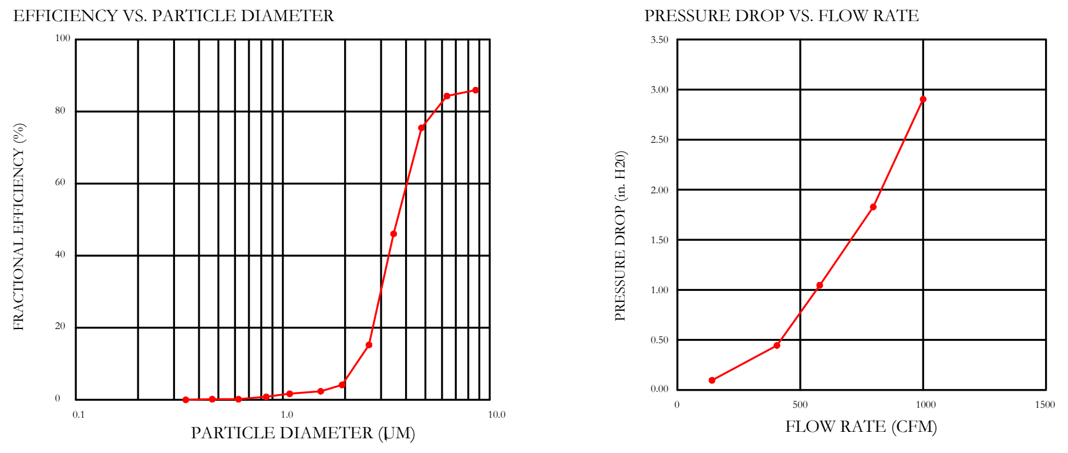
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

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

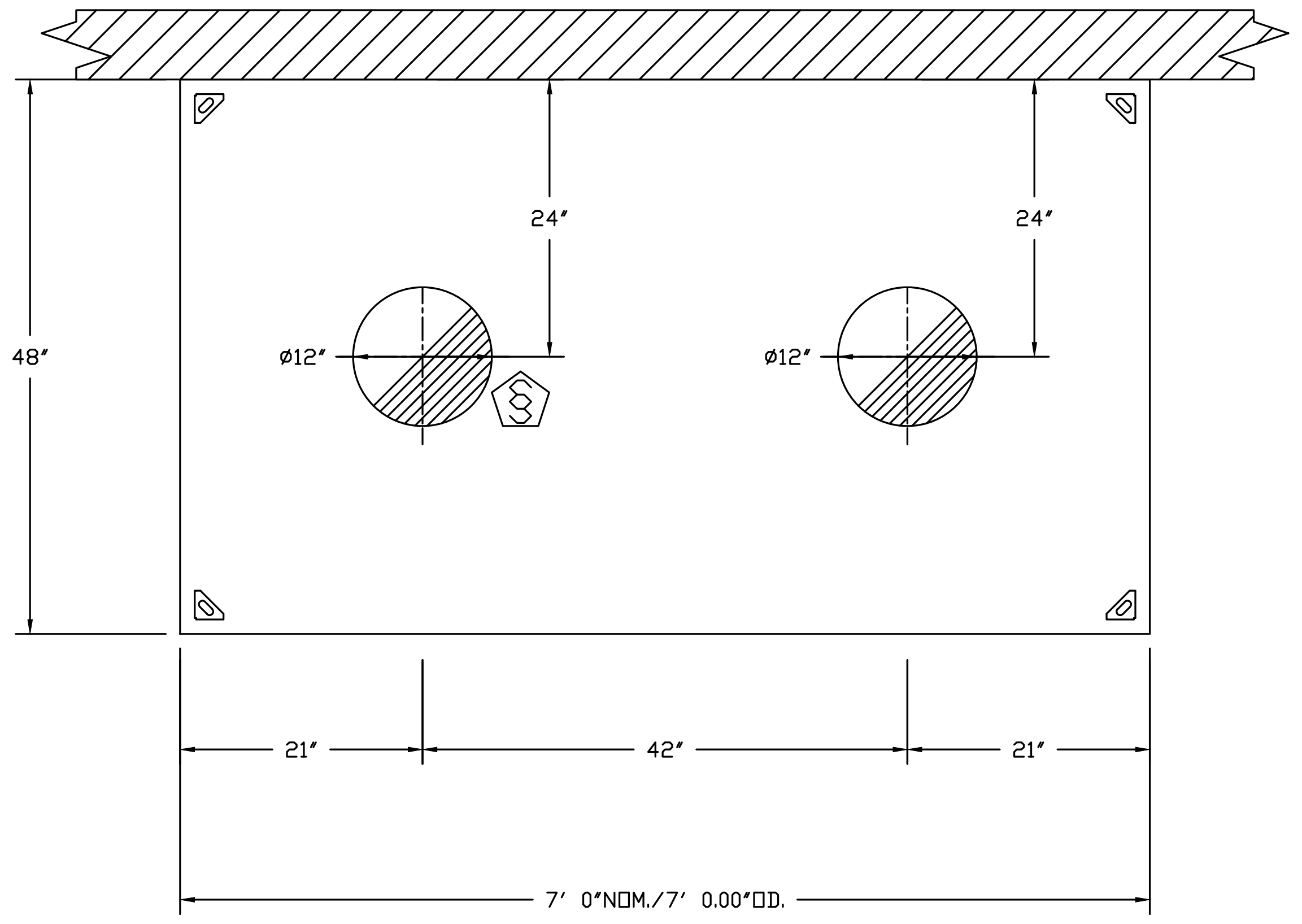
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

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.



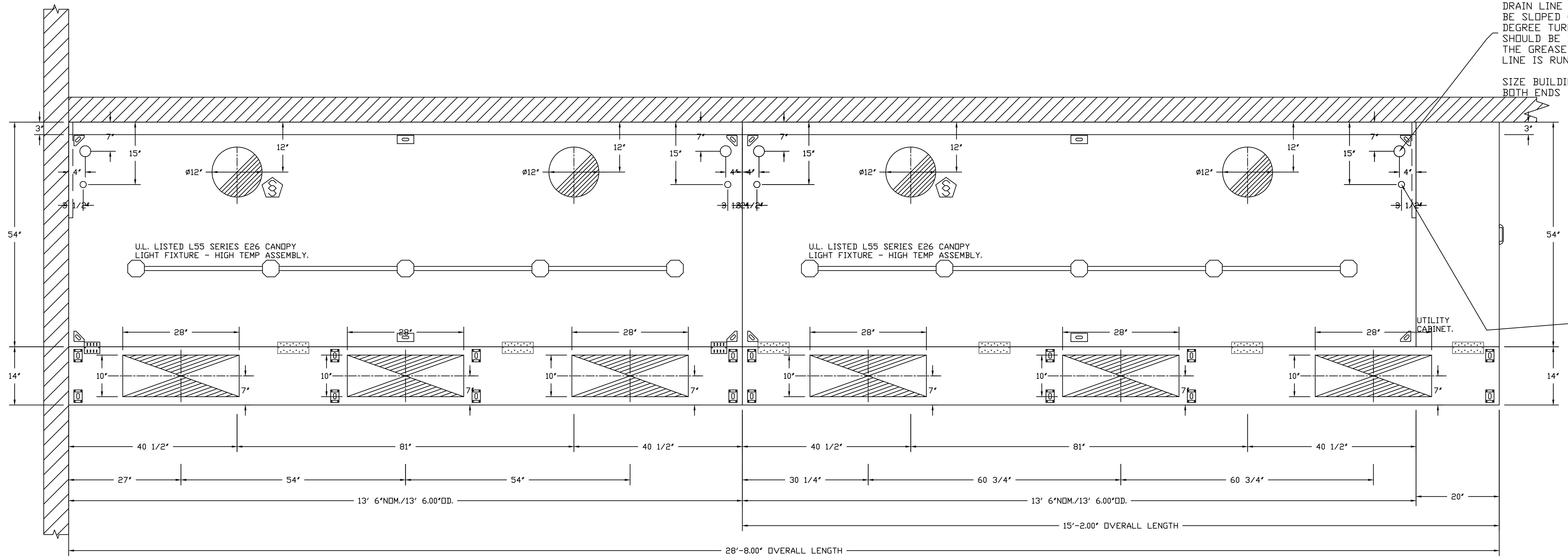
CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



PLAN VIEW – HOOD #3 (HD3 DISH)
7′ 0.00″ LONG 4824VHB-G

SITE PLUMBER RESPONSIBLITY QTY (2) FOR EACH HOOD - PLUMBER TO RUN 1.5″ I.P.S. DRAIN DROP
ENGINEER IS RESPONSIBLE FOR DRAIN LINE DESIGN BEYOND THE HOOD. DRAIN LINE MUST BE INSTALLED PER LOCAL CODES, DRAIN LINE MUST BE SLOPED (MINIMUM ¼ INCH PER FOOT), AVOID ANY UNNECESSARY 90 DEGREE TURNS, IF COMBINED WITH OTHER DRAIN LINES, THEN PIPE SIZE SHOULD BE INCREASED ACCORDINGLY. P-TRAPS SHOULD NOT BE USED IN THE GREASE DRAIN LINE AND HEAT TAPE MUST BE USED WHERE DRAIN LINE IS RUN IN ENVIRONMENTS THAT WOULD SOLIDIFY GREASE.

SIZE BUILDING GREASE INTERCEPTOR ACCORDINGLY.
BOTH ENDS



3/4″ I.P.S. (N.P.T.) HOT WATER CONNECTION STUBS ARE PREFIT BY FACTORY.
BOTH ENDS

PLAN VIEW – HOOD #1 (HD1 LEFT)
13′ 6.00″ LONG 5424ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12′ AND LONGER.

PLAN VIEW – HOOD #2 (HD2 RIGHT)
13′ 6.00″ LONG 5424ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12′ AND LONGER.

REVISIONS

	DESCRIPTION	DATE:
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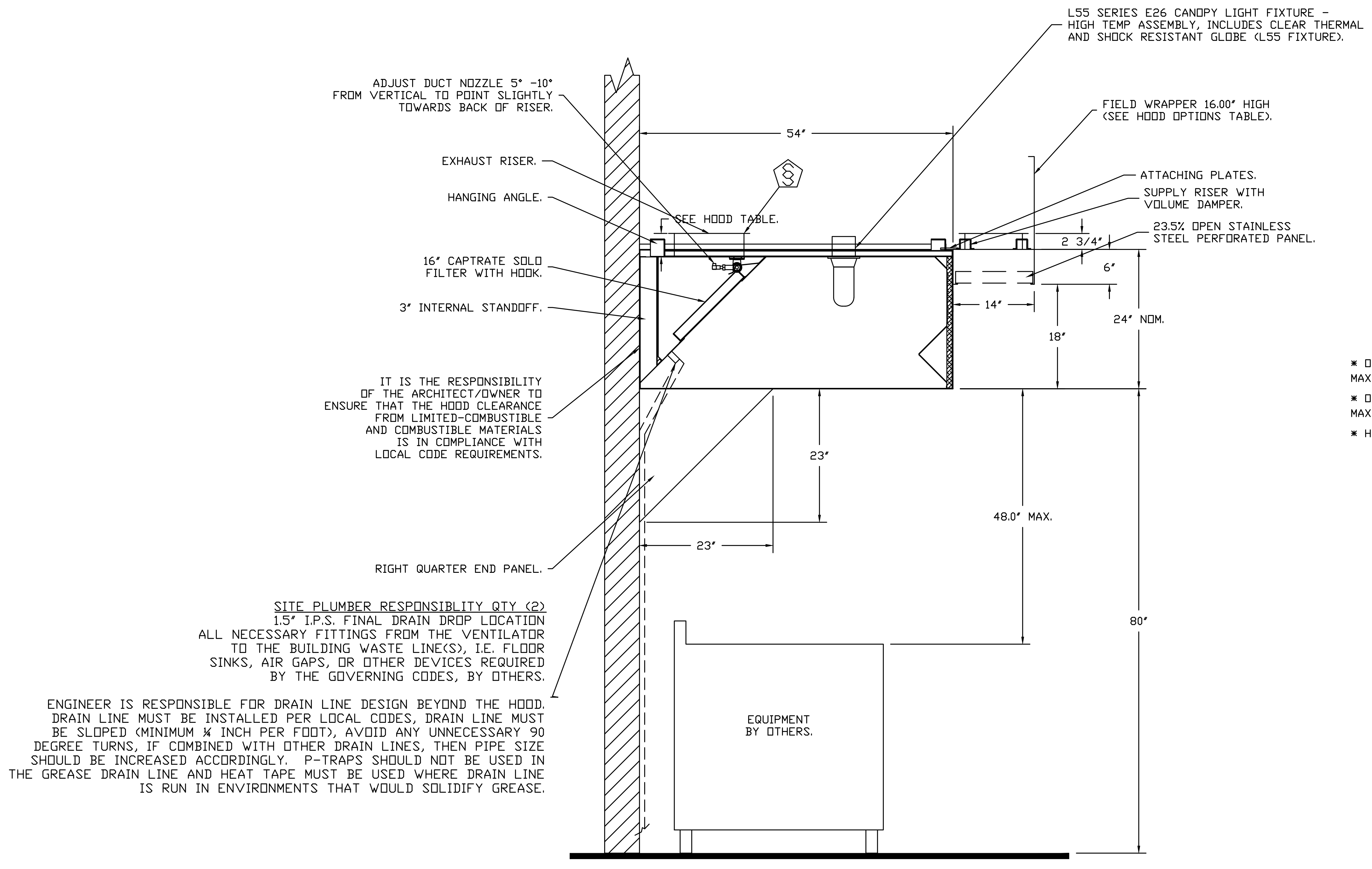
WRG LLC (Bellveue,KY)
119 Fairfield Ave,
Bellevue, KY, 41073

DATE: 10/12/2021
DWG.#: 4945847
DRAWN BY: jcirilli
SCALE: 3/4″ = 1′-0″
MASTER DRAWING
SHEET NO. 1



<u>SITE PLUMBER RESPONSIBLITY QTY (2)</u>
1.5″ I.P.S. FINAL DRAIN DROP LOCATION
ALL NECESSARY FITTINGS FROM THE VENTILATOR
TO THE BUILDING WASTE LINE(S), I.E. FLOOR
SINKS, AIR GAPS, OR OTHER DEVICES REQUIRED
BY THE GOVERNING CODES, BY OTHERS.

ENGINEER IS RESPONSIBLE FOR DRAIN LINE DESIGN BEYOND THE HOOD. DRAIN LINE MUST BE INSTALLED PER LOCAL CODES, DRAIN LINE MUST BE SLOPED (MINIMUM ¼ INCH PER FOOT), AVOID ANY UNNECESSARY 90 DEGREE TURNS, IF COMBINED WITH OTHER DRAIN LINES, THEN PIPE SIZE SHOULD BE INCREASED ACCORDINGLY. P-TRAPS SHOULD NOT BE USED IN THE GREASE DRAIN LINE AND HEAT TAPE MUST BE USED WHERE DRAIN LINE IS RUN IN ENVIRONMENTS THAT WOULD SOLIDIFY GREASE.

SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #2 (HD2 RIGHT)

CORE APPLIANCE PIPING WATER FLOW SUMMARY			
	PIPE DIAMETER	MINIMUM FLOW RATE (GPM)	PRESSURE DROP (PSI)
FIELD PIPING/DUCT RUN BETWEEN ALL HOOD GROUPS	1.5	44.5	0.00
HOOD/DUCT RUN INTERNAL PIPING	0.75	18.9	35

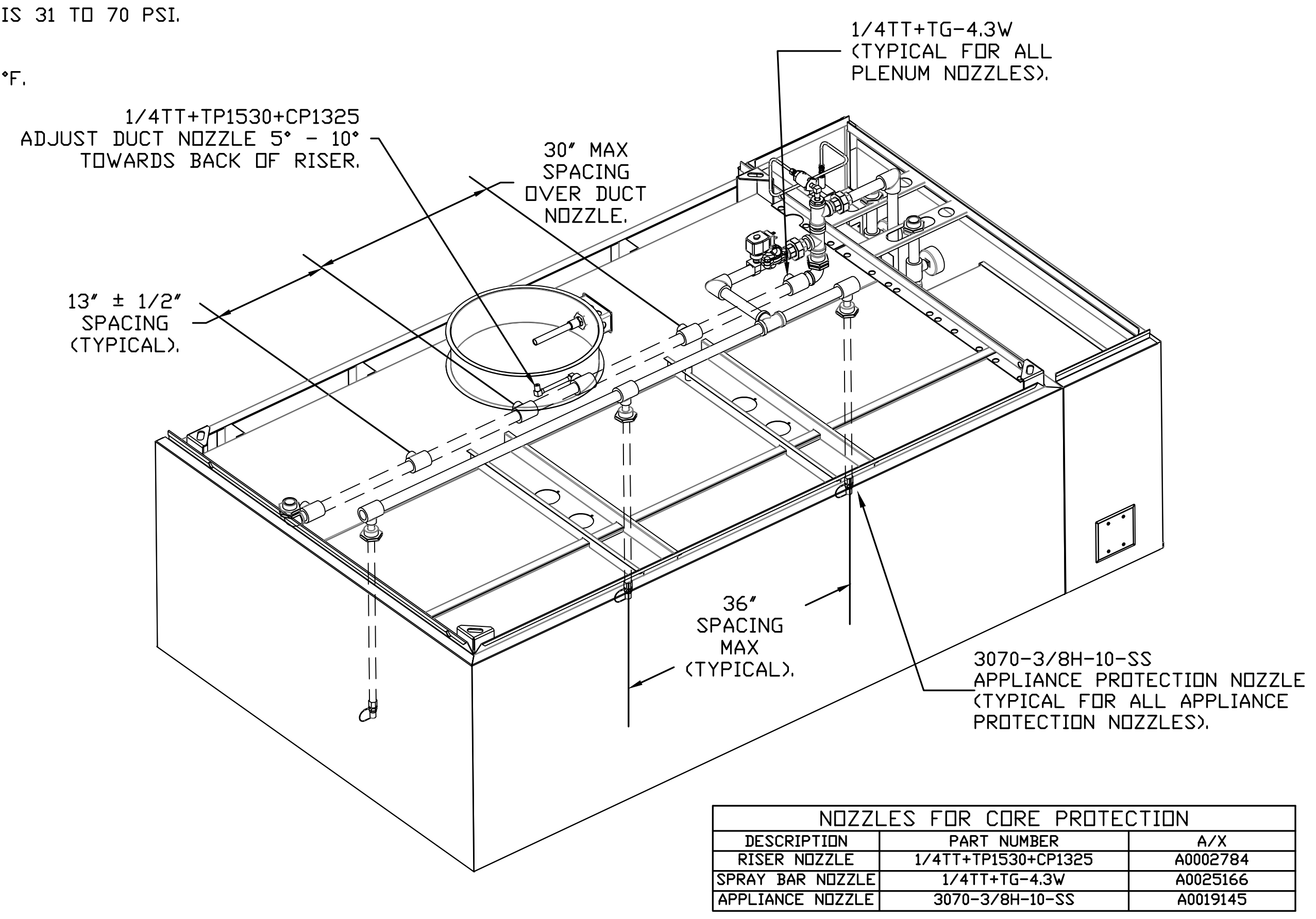
SELF CLEANING WATER FLOW SUMMARY			
	PIPE DIAMETER	MINIMUM FLOW RATE (GPM)	PRESSURE DROP (PSI)
FIELD PIPING/DUCT RUN BETWEEN ALL HOOD GROUPS	1.5000	18.9	0
HOOD/DUCT RUN INTERNAL PIPING	0.75	18.9	31

TOTAL SYSTEM INLET REQUIREMENTS			WATER HEATER INSTANTANEOUS DEMAND (MBH)
	MINIMUM FLOW RATE (GPM)	MINIMUM PRESSURE (PSI)	
TOTAL CORE INLET REQUIREMENTS	44.5	35	825
TOTAL SELF-CLEANING INLET REQUIREMENTS	18.9	31	

* OPERATING PRESSURE RANGE AT CORE PANEL GAUGE IS 35 TO 70 PSI.
MAXIMUM STATIC PRESSURE IS 125 PSI.

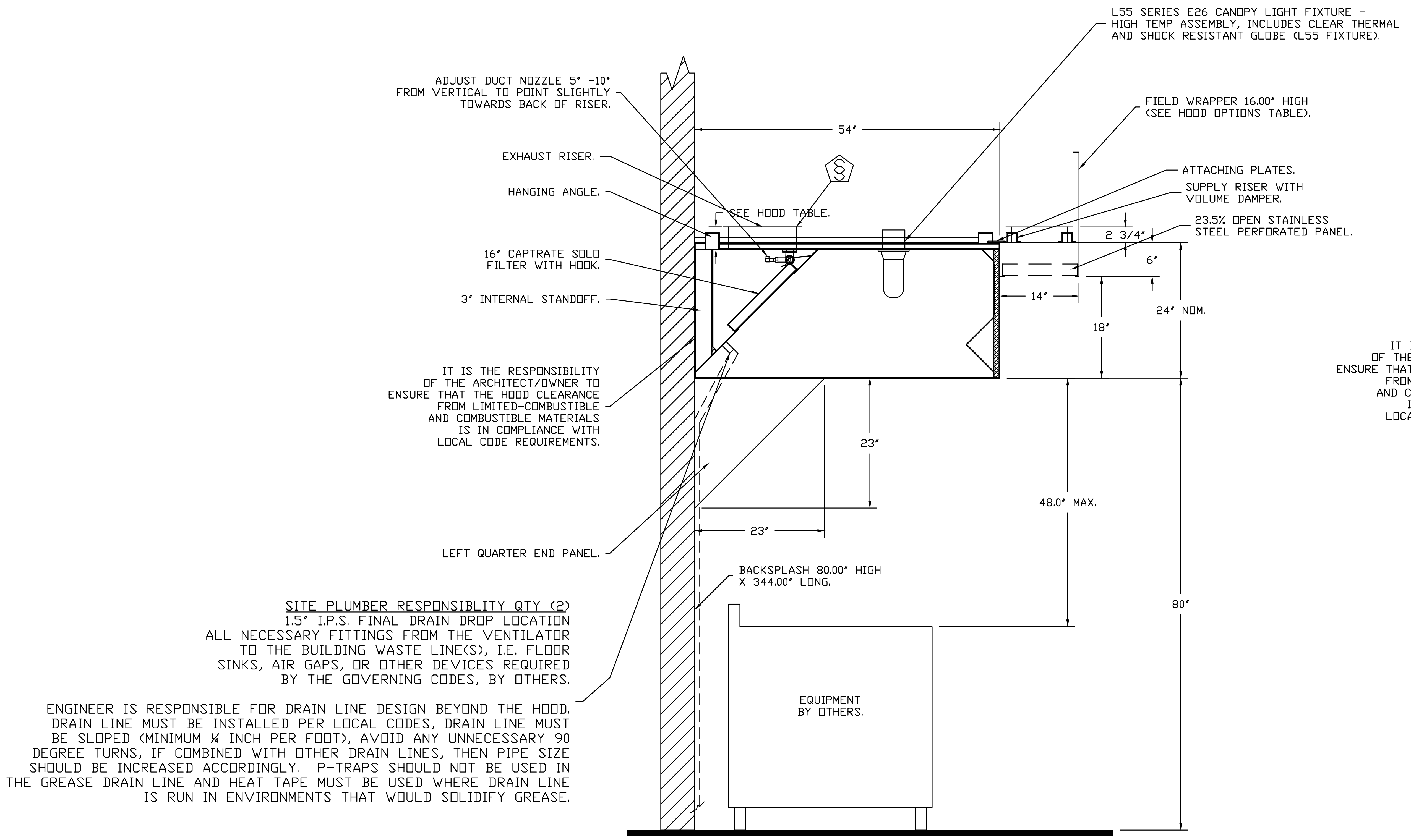
* OPERATING PRESSURE RANGE AT Self Cleaning PANEL GAUGE IS 31 TO 70 PSI.
MAXIMUM STATIC PRESSURE IS 125 PSI.

* HOT WATER TEMPERATURE RANGE FOR SELF CLEANING 140-170°F.



NOZZLES FOR CORE PROTECTION		
DESCRIPTION	PART NUMBER	A/X
RISER NOZZLE	1/4TT+TP1530+CP1325	A0002784
SPRAY BAR NOZZLE	1/4TT+TG-4.3W	A0025166
APPLIANCE NOZZLE	3070-3/8H-10-SS	A0019145

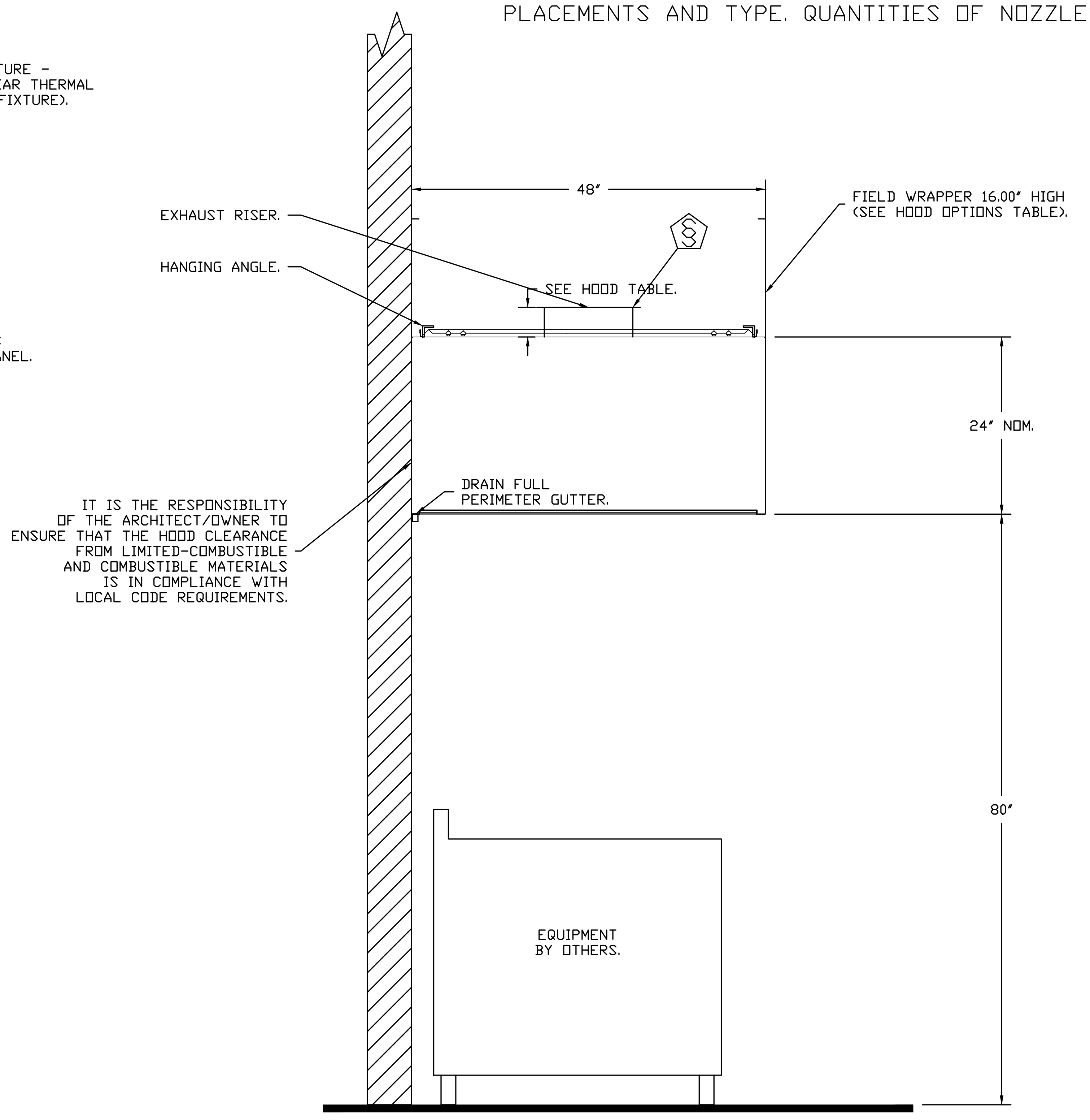
ISOMETRIC VIEWS ARE FOR GRAPHICAL REPRESENTATION OF TYPICAL NOZZLE PLACEMENTS AND TYPE. QUANTITIES OF NOZZLES WILL VARY.



<u>SITE PLUMBER RESPONSIBLITY QTY (2)</u>
1.5″ I.P.S. FINAL DRAIN DROP LOCATION
ALL NECESSARY FITTINGS FROM THE VENTILATOR
TO THE BUILDING WASTE LINE(S), I.E. FLOOR
SINKS, AIR GAPS, OR OTHER DEVICES REQUIRED
BY THE GOVERNING CODES, BY OTHERS.

ENGINEER IS RESPONSIBLE FOR DRAIN LINE DESIGN BEYOND THE HOOD. DRAIN LINE MUST BE INSTALLED PER LOCAL CODES, DRAIN LINE MUST BE SLOPED (MINIMUM ¼ INCH PER FOOT), AVOID ANY UNNECESSARY 90 DEGREE TURNS, IF COMBINED WITH OTHER DRAIN LINES, THEN PIPE SIZE SHOULD BE INCREASED ACCORDINGLY. P-TRAPS SHOULD NOT BE USED IN THE GREASE DRAIN LINE AND HEAT TAPE MUST BE USED WHERE DRAIN LINE IS RUN IN ENVIRONMENTS THAT WOULD SOLIDIFY GREASE.

SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #1 (HD1 LEFT)



SECTION VIEW – MODEL 4824VHB-G
HOOD – #3 (HD3 DISH)

REVISIONS	
DESCRIPTION	DATE:
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DATE: 10/12/2021

DWG.#:
4945847

DRAWN BY: jcirilli

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

MASTER DRAWING

SHEET NO.
2

RESPONSIBILTY MATRIX

A) REQUIREMENTS FOR OWNERS HOOD SUPPLIER:

1) HOODS, FANS, & ALL ASSOCIATED EXHAUST & SUPPLY DUCTWORK IS PROVIDED & INSTALLED, INCLUDING WALL STAINLESS BELOW THE HOOD. HOOD SYSTEM TO BE STARTED UP & SMOKE TEST ON THE HOODS IN FRONT OF THE OWNER TO ENSURE SATISFACTION WITH COOKING EQUIPMENT ON.
2) SUPPLY INSTALLATION DRAWINGS & SUBMIT & PAY FOR HOOD & FIRE SYSTEM FOR THE COOKING EQUIPMENT.
3) SET CURBS & LIFT FANS TO ROOF & MOUNT FANS AS SHOWN ON DRAWINGS INCLUDING MUA.
4) 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.
5) INSTALL ALL LISTED GREASE EXHAUST DUCT FROM CAPTIVE-AIRE SPECIFICATIONS FROM HOODS TO FAN ON ROOF.
6) INSTALL DISH HOOD, DUCT, & FAN FOR SYSTEM.
7) INSTALL ALL HARD PIPED SUPPLY DUCT FROM MUA UNIT TO SUPPLY PLENUMS LOCATED ON HOODS.
8) FIRE SYSTEM FOR HOOD INSTALLED BY OWNERS REPRESENTATIVE, HOWEVER REQUIRES WORK FROM ELECTRICIAN, PLUMBER, & SPRINKLER CONTRACTOR.
9) FIELD WIRE THE DUCT SENSORS LOCATED IN EXHAUST COLLARS TO CAPTIVE AIRE CABINET. CAPTIVE AIRE SUPPLIES THE WHITE STAT WIRE & SHIPPED IN CABINET.
10) FIELD WIRE & INSTALL ROOM SENSOR SUPPLIED BY CAPTIVE AIRE. MOUNT SENSOR 6' AWAY FROM HOOD UP HIGH. STAT WIRE PROVIDED BY CAPTIVE AIRE.
11) RUN A CAT5 CABLE FROM HOOD CONTROL PANEL TO MAKE UP AIR LOCATED UP ON ROOF.
12) RUN FIRE STAT WIRE FROM HOOD TO HOOD FOR FIRE ACTUATION
13) RUN CAPTIVE AIRE LOW VOLTAGE FIRE WIRE FROM HOOD CONTROL PANEL TO ELECTRONIC REMOTE PULL STATION SYSTEM
14) FACTORY STARTUP & BALANCE OF HOOD SYSTEM WITH PRETEST WITH ALL TRADES & PERFORM FINAL ANSUL & HOOD FINALS.
15) PROVIDE TRAINING TO OWNER.

B) NOTES (REQUIREMENTS) FOR ELECTRICIAN:

1) FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (HOOD MOUNTED PANEL) 3 PHASE (460V) POWER FOR EXHAUST FAN AND THEN FROM CAPTIVE AIRE PANEL TO THE DISCONNECT ON THE FAN. THE POWER MUST BE IN SEPARATE CONDUITS DUE TO THE VFD'S.
2) RUN QTY (1) 460V, 3 PHASE CIRCUIT FROM BUILDING PANEL TO MAKE UP AIR DISCONNECT LOCATED ON ROOF.
3) RUN QTY (2) 460V, 3 PHASE CIRCUITS FROM BUILDING PANEL TO THE TWO CONDENSERS LOCATED ON MAKE UP AIR UNIT.
4) 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.
5) 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.
6) VERIFY THAT THE WIRE RED/BROWN WIRES ON ANSUL CABINET TO CAPTIVE-AIRES CONTROL PANEL C1 & AR1 TERMINALS.
7) 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.
8) CONNECT LIGHTS JUNCTION BOX BETWEEN HOOD1 & HOOD2
9) RUN 120V POWER FROM HOOD CONTROL PANEL THAT ALREADY EXIST TO THE ELECTRIC GAS VALVE FOR COOKING EQUIPMENT SHUT DOWN.
10)
11) FIELD WIRE THE BUILDING ALARM SYSTEM (IF APPLICABLE) INTO THE CORE FIRE SYSTEM PANEL AS SHOWN ON DRAWINGS LOCATED ON RIGHT END OF THE HOOD.
12) 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.
13) SUPPLY FAN WALL SWITCH NEAR DISH HOOD & RUN 120 VOLTS FROM SWITCH TO DISHWASHER EXHAUST FAN LOCATED ON ROOF.
14) REVIEW ALL C.A.S. DRAWINGS & PERFORM ALL FIELD WIRING FOR CORE FIRE SYSTEM AS REQUIRED.

C) FIELD NOTES (OTHER TRADES)

1) SITE PLUMBER TO INSTALL THE CAPTIVE-AIRE PROVIDED ELECTRIC 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.
2) PLUMBER TO SUPPLY & INSTALL GAS LINE TO MUA LOCATED ON ROOF.
3) PIPE ALL WATER-WASH-HOOD SYSTEMS DRAINS TO THE INDIRECT FLOOR DRAINS USING COPPER PIPING (SEE HOOD SECTION VIEW).
4) RUN HOT WATER LINE TO HOOD WATER WASH SYSTEM LOCATED ON RIGHT END OF HOOD. PROVIDE ANY REQUIRED PRESSURE REDUCING VALVE OR BACKFLOW VALVES.
5) CONNECT PIPING BETWEEN HOODS WHICH CONSIST OF THE HOT WATER CONNECTION & THE SPRINKLER - FIRE SYSTEM PIPING BETWEEN HOODS.
6) ENSURE THERE ARE PROPER FLOOR DRAINS IN FLOORING FOR PROPER DRAINAGE OF HOOD SYSTEM DURING WATER WASH OR FIRE ACTUATION.

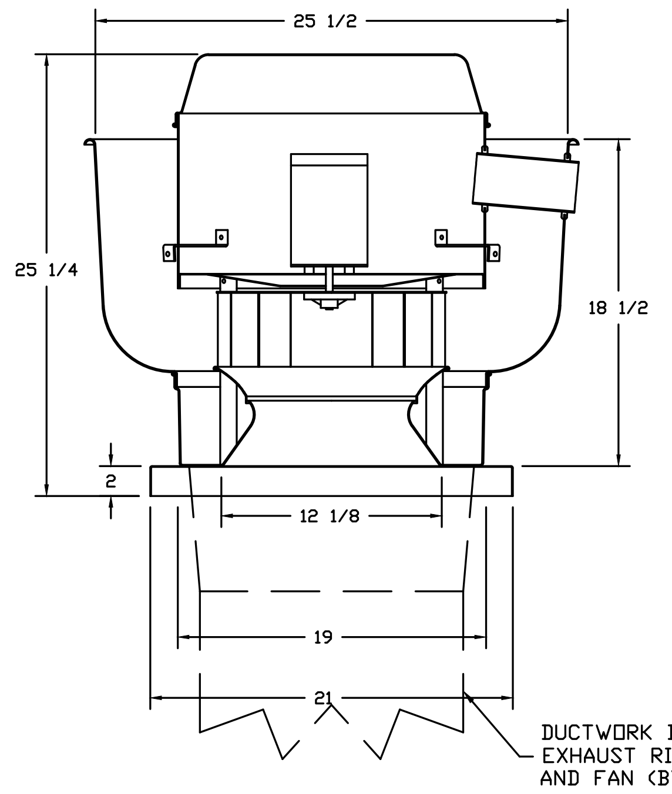
D) SPRINKELER CONTRACTOR RESPONSIBILITIES:

1) RUN DEDICATED SPRINKLER LINE TO HOLD CONTROL PANEL. MUST BE A MAXIMUM PRESSURE OF 125 PSI. IF GREATER, SUPPLY & INSTALL PRV VALVE VALE WITH NO SHUT OFF.
2) SUPPLY & INSTALL VACUUM BREAKER IF ANY SHUT OFF SUPPLIES, MUST BE SUPERVISED.

E) GENERAL CONTRACTOR (GS) RESPONSIBILITIES:

1) 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
2) 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 SUPPLY/CUT ALL HOLES IN WALLS/FLOORING, ETC.
3) PROVIDE A WORKING CONSTRUCTION SCHEDULE TO ALL TRADES.
4) ENSURE PROPER MAINTENANCE/ACCESS FOR ALL FANS, HOODS, & SYSTEMS.
5) FOR LARGER EQUIPMENT (IE HOODS) THAT CANNOT FIT UP THE ELEVATOR WILL REQUIRE THE GENERAL CONTRACTOR TO TAKE OUT A LARGE WINDOW OR TWO TO ALLOW THE HOOD INSTALLER TO CRANE IN THE HOODS UP TO THE 4TH FLOOR.
6) WORK WITH PLUMBING CONTRACTOR TO MAKE SURE THE HOOD HAS PLENTY OF FLOOR DRAINS AS REQUIRED FOR HOOD SYSTEM & COOKING EQUIPMENT. THE HOOD REQUIRES TO BE PIPED INDIRECTLY TO A GREASE TRAP DRAIN(S).
7) MANAGE THE SPRINKLER CONTRACTOR, PLUMBER, ELECTRICIAN ON THEIR RESPONSIBILITIES TO COMPLETE THE SYSTEM.
8) ANY EQUIPMENT SCREENING ON ROOF BY OTHERS IF REQUIRED.

FAN #3 DU33HFA - EXHAUST FAN (KEF2-DISH)



FEATURES:

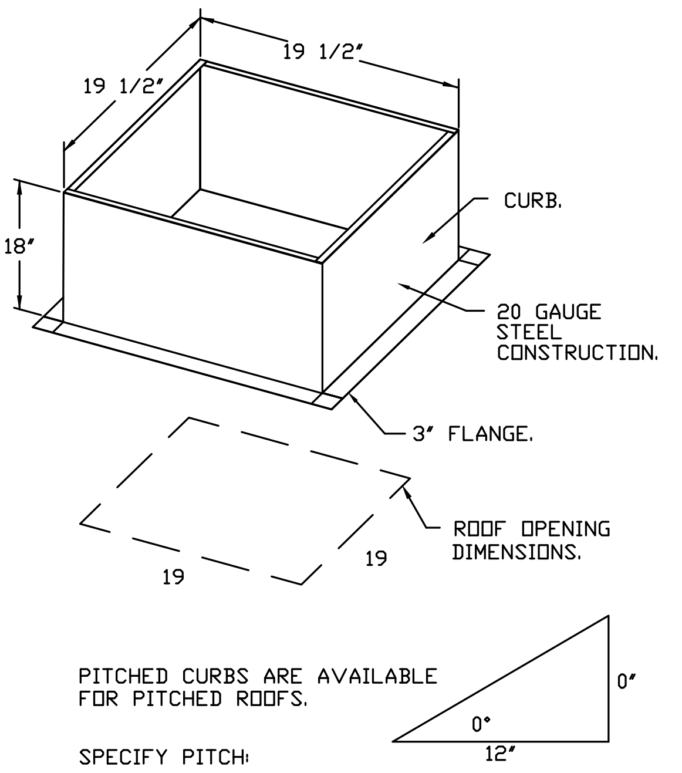
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).

- 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.

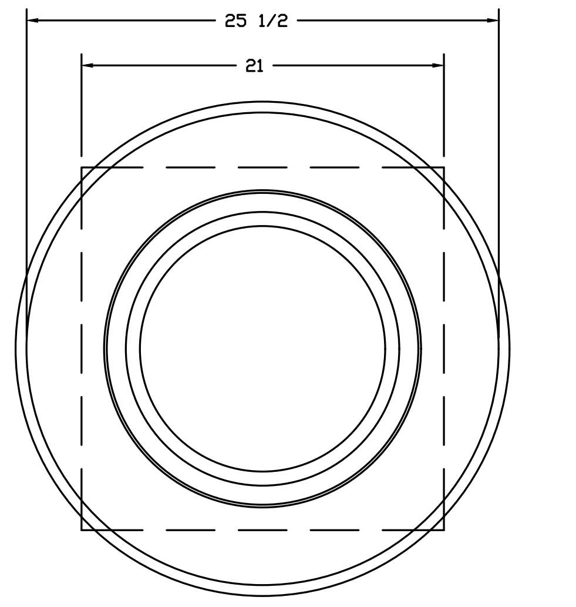
OPTIONS

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



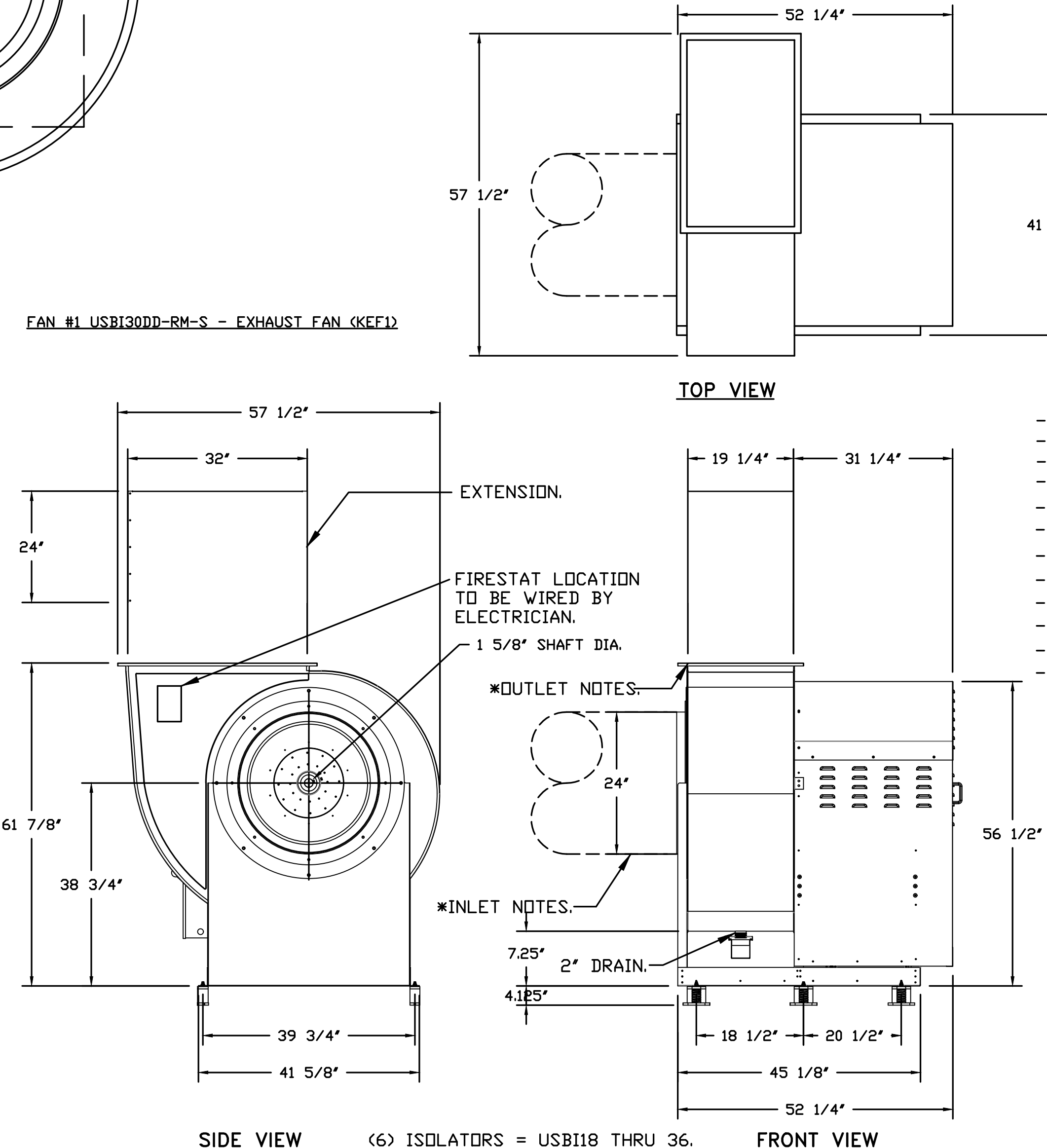
PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.



TOP VIEW

FAN #1 USBI30DD-RM-S - EXHAUST FAN (KEF1)



SIDE VIEW   FRONT VIEW

FEATURES:

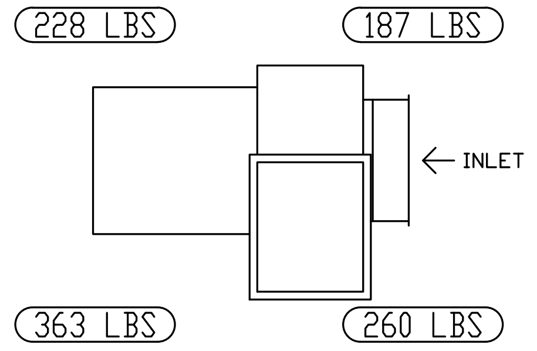
- ROOF MOUNTED FANS.
- UL705.
- UL762 AND ULC-S645 (RESTAURANT MODEL).
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C).
- HEAT SLINGER.
- NEMA 3R SAFETY DISCONNECT SWITCH.
- GREASE CLASSIFICATION TESTING.
- 2" DRAIN.
- MOTOR WEATHER COVER.
- FULLY SEALED SCROLL HOUSING.
- SCROLL ACCESS DOOR.
- FLANGE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

OPTIONS

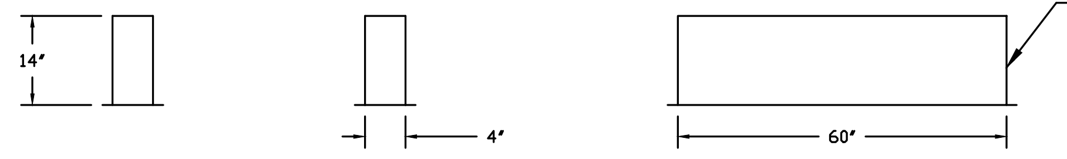
BI30 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 24" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER.
UTILITY SET GREASE CUP.
BI30 - 24" DISCHARGE EXTENSION.
BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
BI30 - INLET CONNECTION STANDARD 24" FLANGED GREASE DUCT.
UTILITY SET - SPRING VIBRATION ISOLATORS - BI24 THRU BI30 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE.
FIRE STAT (360 DEGREE) MOUNTED IN EXHAUST FAN. FOR SIF FANS, MOUNT STAT ON BACK POST OPPOSITE THE DISCONNECT, ABOVE THE COOLING TUBE.
LOAD REACTOR MOUNTED IN FAN.
2 YEAR PARTS WARRANTY.

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:



(6) ISOLATORS = USBI18 THRU 36.



* 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.

EXHAUST FAN INFORMATION - JOB#4945847

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF1	1	USBI30DD-RM	CAPTIVEAIRE	5400	2.150	918	TEFC,PREMIUM	5.000	3.3890	3	460	7.0	1262 FPM	1038	28
3	KEF2-DISH	1	DU33HFA	CAPTIVEAIRE	980	0.420	1519	TEAO-ECM	0.333	0.2140	1	115	4.3	485 FPM	63	15.1

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF1	47 LBS	RAIL	4.000"W X 60.000"L X 14.000"H ALONG WIDTH, RIGHT COMES AS A SET OF 2.
2	# 2	KMUA1	96 LBS	CURB	31.000"W X 79.000"L X 16.000"H ALONG WIDTH, RIGHT INSULATED.
	# 2			RAIL	6.000"W X 31.000"L X 16.000"H RIGHT.
3	# 3	KEF2-DISH	20 LBS	CURB	19.500"W X 19.500"L X 18.000"H ALONG LENGTH, RIGHT.

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

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Air Solutions

1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg120@captiveaire.com

WRG LLC (Bellveue,KY)
119 Fairfield Ave,
Bellevue, KY, 41073

DATE: 10/12/2021

DWG.#:
4945847

DRAWN BY: jcirilli

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

MASTER DRAWING

SHEET NO.
3

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
2	KMUA1	A2-D.500-20D-MPU	1	3	460	3 PHASE	60 HZ	7.7 AMPS	6.3 AMPS	15 AMPS	14 AWG	14
			2	5	460	3 PHASE	60 HZ	10.5 AMPS	8.5 AMPS	15 AMPS	14 AWG	14

MUA FAN INFORMATION – JOB#4945847

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2	KMUA1	1	A2-D.500-20D-MPU	20MF-2-MOD	A2-D.500	2900	4401	0.350	1750	ODP,PREMIUM	5.000	3.0350	3	460	6.8	8.5A	15A	1584	18.9

COILS – JOB#4945847

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
2	KMUA1	DX	4401	90.0°F	74.0°F	75.1°F	68.6°F	---	---	---	---	86.8 MBH	68.1 MBH	18.7 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
---	---	---	---	---	---	---	---	---

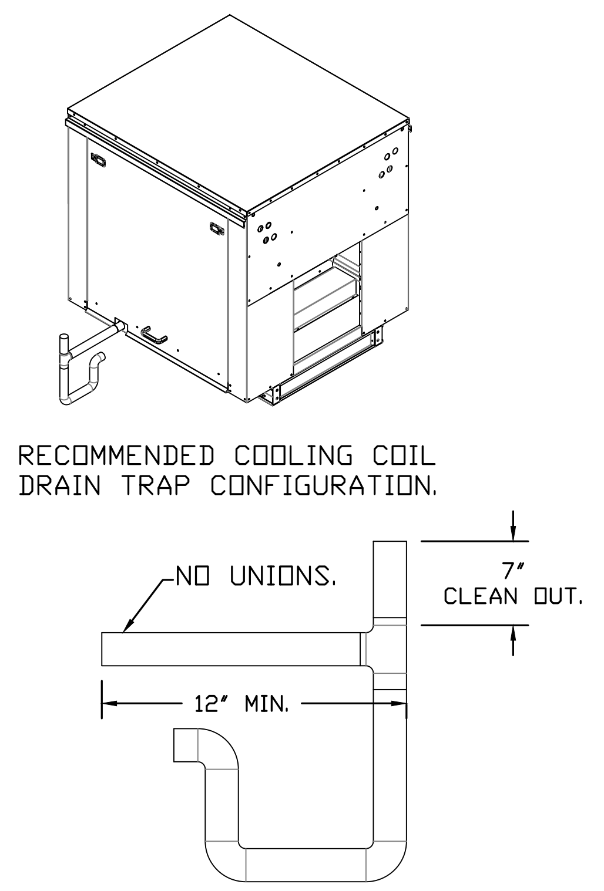
GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMUA1	315587	290340	63°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF1	1	BI30 - 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.
		1	UTILITY SET GREASE CUP.
		1	BI30 - 24" DISCHARGE EXTENSION.
		1	BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
		1	BI30 - INLET CONNECTION STANDARD 24" FLANGED GREASE DUCT.
		1	UTILITY SET - SPRING VIBRATION ISOLATORS - BI24 THRU BI30 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE.
		1	FIRE STAT (360 DEGREE) MOUNTED IN EXHAUST FAN. FOR SIF FANS, MOUNT STAT ON BACK POST OPPOSITE THE DISCONNECT, ABOVE THE COOLING TUBE.
		1	LOAD REACTOR MOUNTED IN FAN.
		1	2 YEAR PARTS WARRANTY.
2	KMUA1	1	INLET PRESSURE GAUGE, 0-35".
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC.
		1	MOTORIZED BACKDRAFT DAMPER FOR A2-D HOUSING. MEETS AMCA CLASS 1A RATING.
		1	8 TON 2 CIRCUIT (3/5) MODULAR PACKAGED COOLING OPTION FOR SIZE 2 DF/EH MUA (2,900 TO 4,800 CFM), 460V, 3 PHASE. COOLING THERMOSTAT OR PROGRAMMABLE STAT REQUIRED FOR PROPER OPERATION.
		1	DOWNTURN PLENUM FOR SIZE 2 DX COIL MODULE.
		1	LOAD REACTOR MOUNTED IN FAN.
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03.
		1	LOW FIRE START.
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY.
		1	COOLING THERMOSTAT AND RELAY (NOT REQ FOR EVAP).
		1	DRY MODE.
		1	2 YEAR PARTS WARRANTY.
3	KEF2-DISH	1	ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL (TELCO MOTOR), CCW ROTATION.
		1	2 YEAR PARTS WARRANTY.

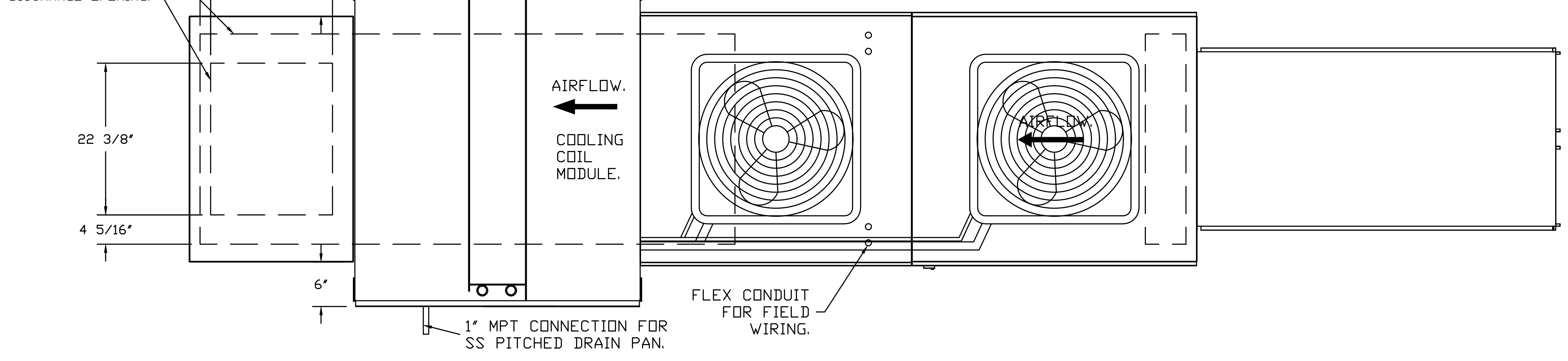
TYPICAL DRAIN TRAP INSTALL

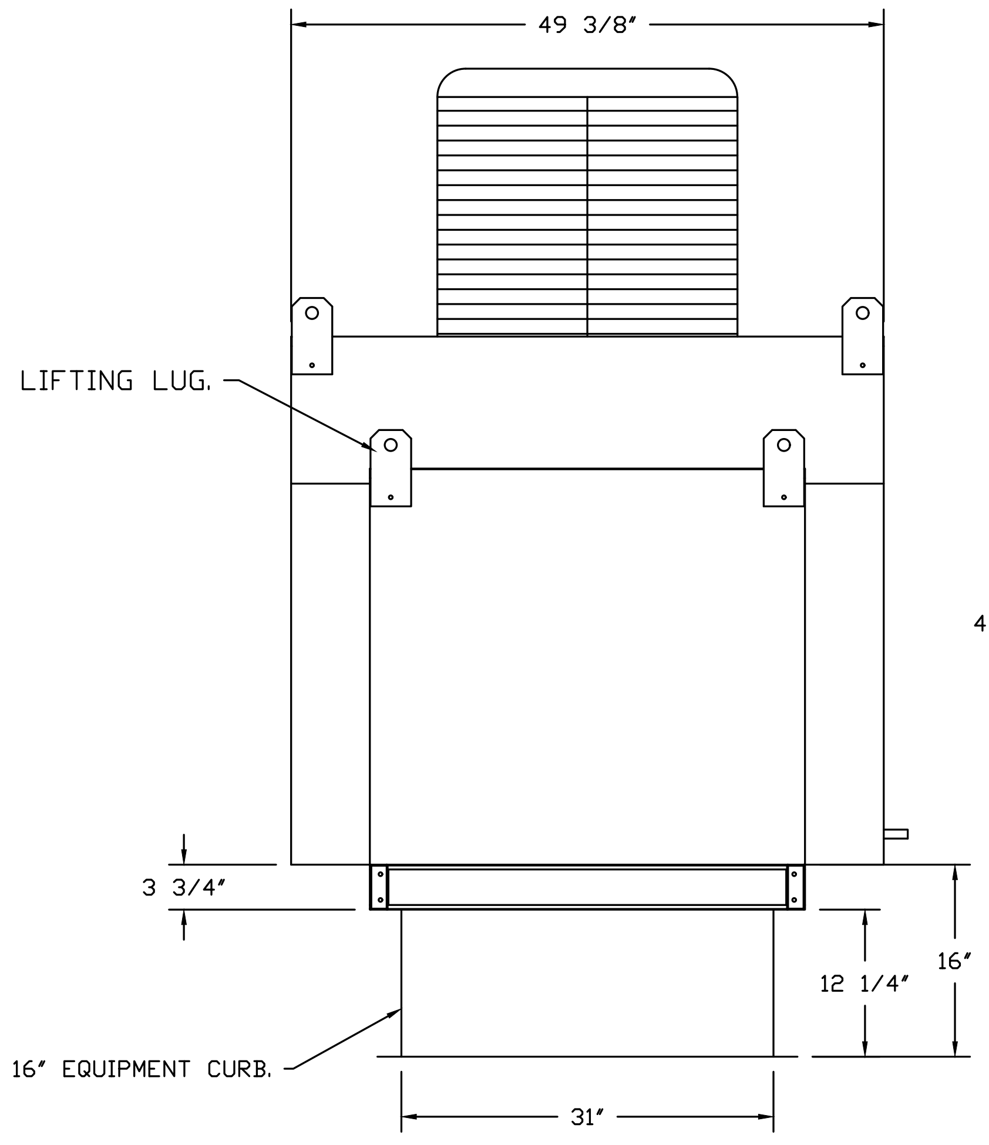


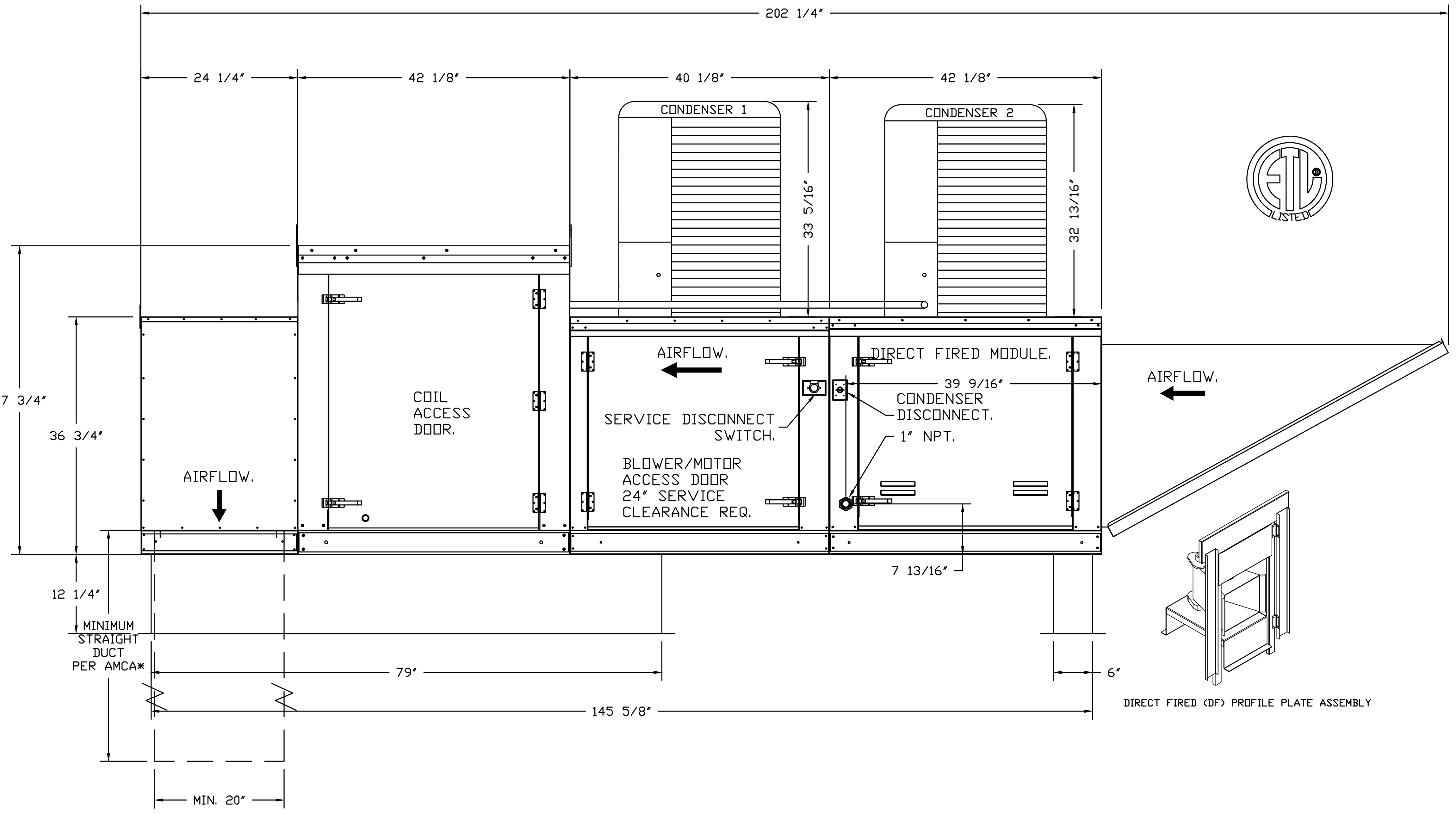
NOTES:
1) 1" DIAMETER PVC PIPE ONLY.
2) USE ONLY LOW PROFILE COUPLINGS.
3) ADD CLEAN OUT AS SHOWN.

SUPPLY SIDE HEATER INFORMATION:

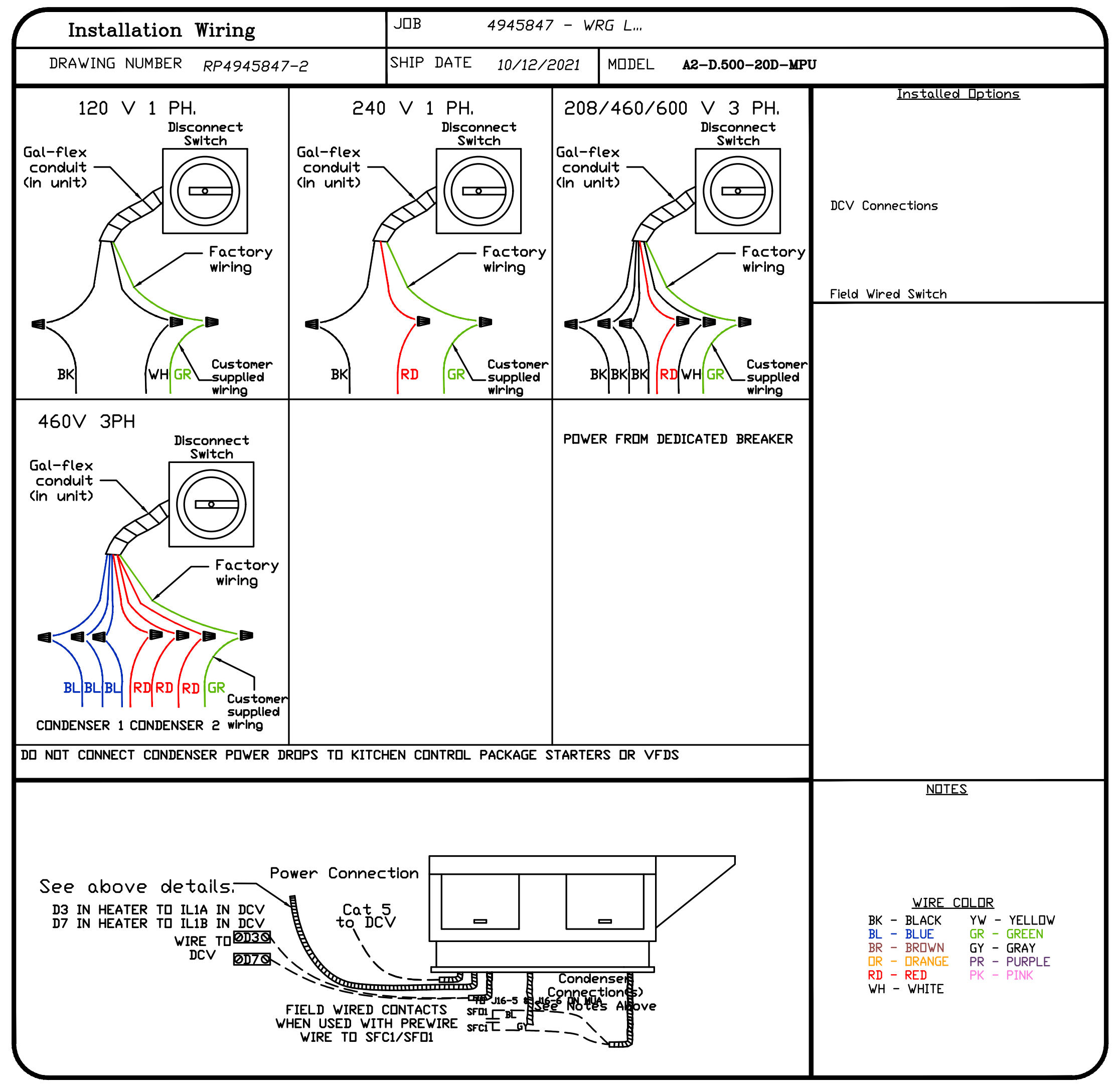
WINTER TEMPERATURE = 12°F. TEMP. RISE = 63°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 296211.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 321969.
OUTPUT BTUs AT ALTITUDE OF 553 FT. = 290340.
INPUT BTUs AT ALTITUDE OF 553 FT. = 315586.







DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY



Installation Wiring
JOB 4945847 - WRG L...
DRAWING NUMBER RP4945847-2
SHIP DATE 10/12/2021
MODEL **A2-D.500-20D-MPU**

DO NOT CONNECT CONDENSER POWER DROPS TO KITCHEN CONTROL PACKAGE STARTERS OR VFDS

WIRE COLOR

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

FAN #2 A2-D.500-20D-MPU - HEATER (KMUA1)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
6. 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.
7. 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 460V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 3EZ1101D.
8. DOWNTURN PLENUM FOR SIZE 2 COOLING COIL MODULE - REQUIRED FOR DOWN DISCHARGE COOLING COIL APPLICATIONS.
9. MOUNT LOAD REACTOR IN FAN.
10. UNIT MOUNTED VFD FOR USE WITH ECPM03.
11. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
12. 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.
13. DX COOLING INTAKE AIR THERMOSTAT AND RELAYS MOUNTED IN UNIT - SET POINT FOR THERMOSTAT SHOULD BE 85°F.
14. DRY MODE.
15. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
16. 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 20" x 20".

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

www.captiveaire.com
Air Solutions
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860-5555 EMAIL: reg120@captiveaire.com

WRG LLC (Bellveue,KY)
119 Fairfield Ave,
Bellevue, KY, 41073

DATE: 10/12/2021

DWG.#: 4945847

DRAWN BY: jcirilli

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

MASTER DRAWING

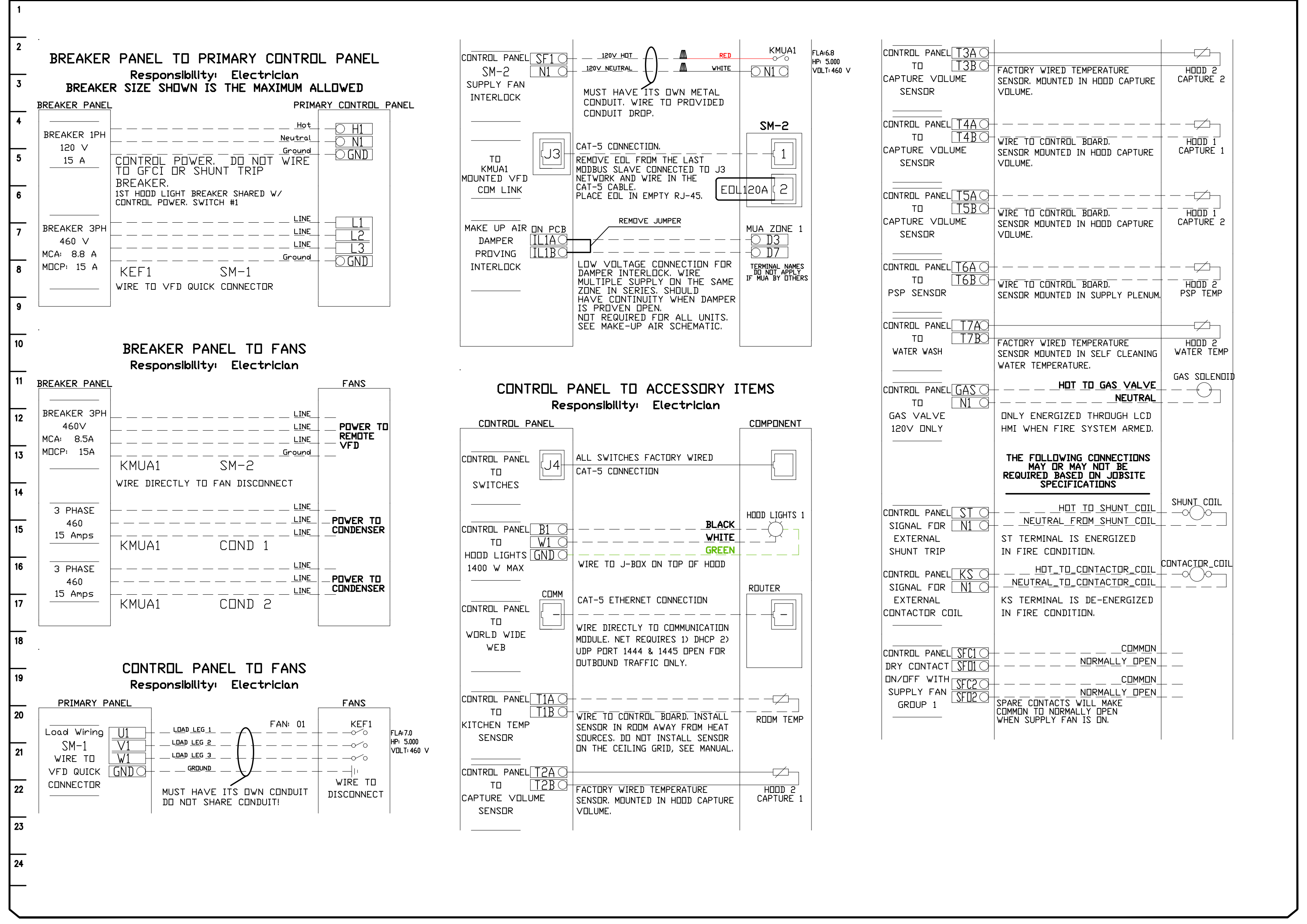
SHEET NO. 4

ELECTRICAL PACKAGE – JOB#4945847

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Φ	HP	VOLT	FLA
1	ECP 1	DCV-1111	UTILITY CABINET RIGHT	04 – UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS DCV	KEF1	EXHAUST	3	5.000	460	7.0
				HOOD # 2	1 FAN		KMUA1	SUPPLY	3	5.000	460	6.8

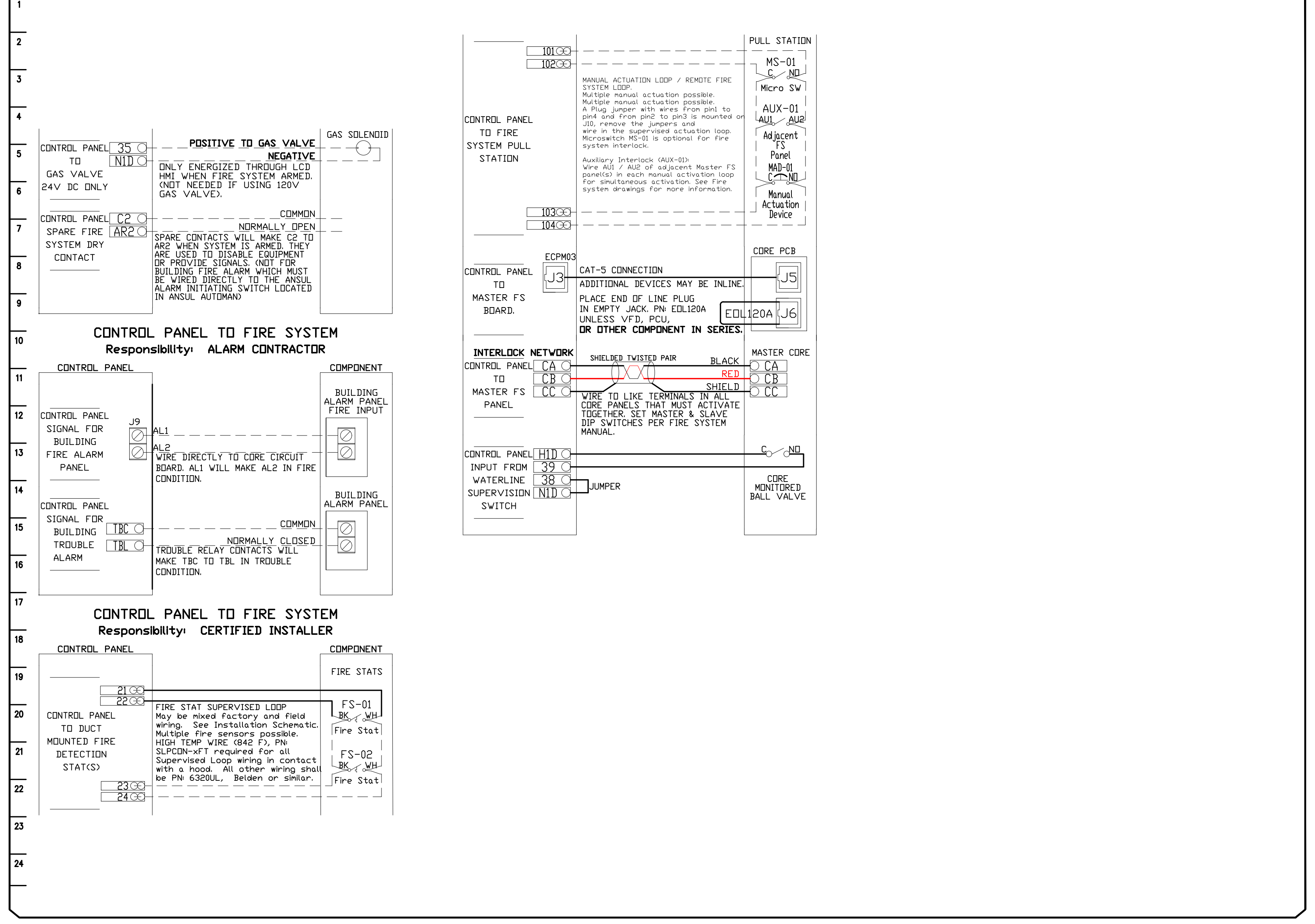
JOB NO 4945847
MODEL NUMBER DCV-1111
JOB NAME WRG LLC (Bellveue,KY)
DRAWN BY
DATE 10/12/2021
SCHEMATIC TYPE INSTALL
DWG NO ECP #1-1

DESCRIPTION OF OPERATION: Demand Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate 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 NO 4945847
MODEL NUMBER DCV-1111
JOB NAME WRG LLC (Bellveue,KY)
DRAWN BY
DATE 10/12/2021
SCHEMATIC TYPE INSTALL
DWG NO ECP #1-2

DESCRIPTION OF OPERATION: Demand Control Ventilation, w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fans modulate 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 NO 4945847
MODEL NUMBER DCV-1111
JOB NAME WRG LLC (Bellveue,KY)
DRAWN BY
DATE 10/12/2021
SCHEMATIC TYPE INSTALL
DWG NO ECP #1-3

DESCRIPTION OF OPERATION: Fire System #1 CORE Protection (FS1). 1" CORE Appliance Manifold Package with Self Cleaning. Installed in Hood Utility Cabinet with integral hood prewire panel.

CORE TOTAL FLOOD PROTECTION ELECTRICAL DETAIL

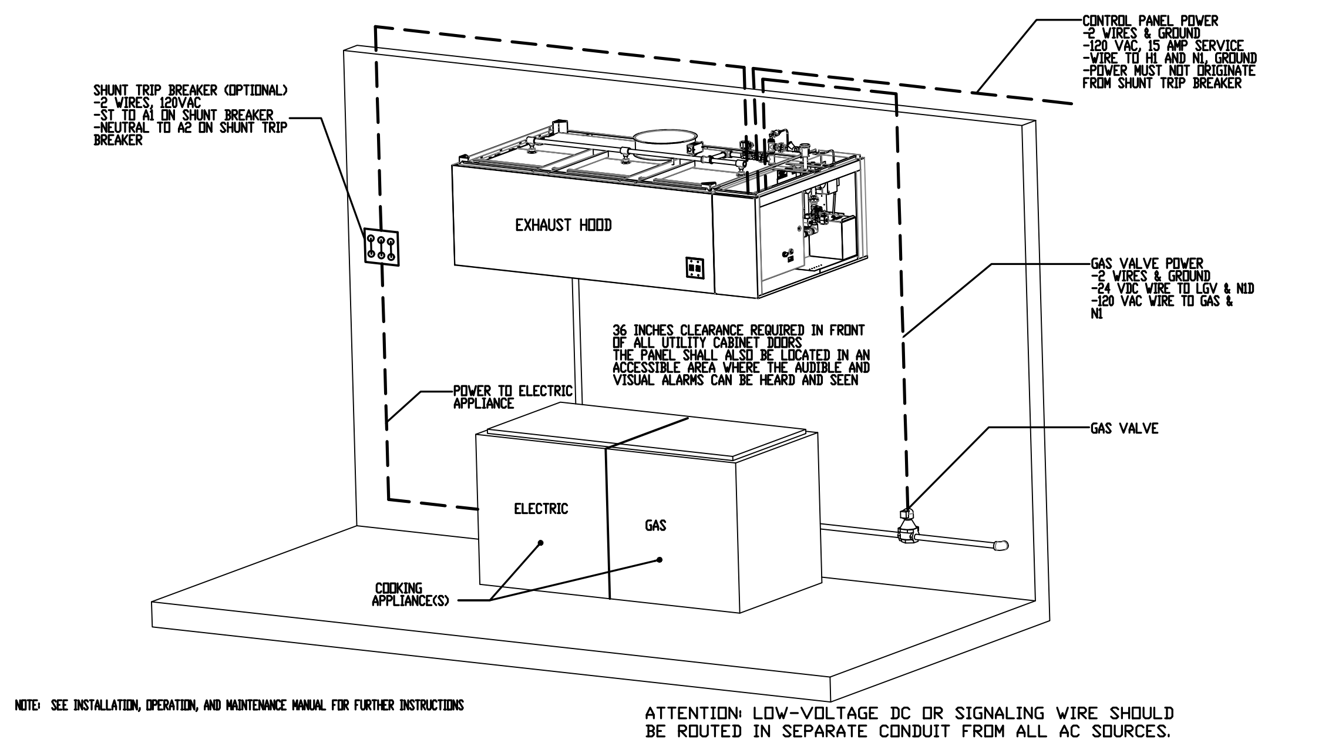
04/14/2014 Rev. 10

FS-1: MASTER

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

ELECTRICAL CONTRACTOR REQUIREMENT

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



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

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

JOB NO 4945847
MODEL NUMBER DCV-1111
JOB NAME WRG LLC (Bellveue,KY)
DRAWN BY
DATE 10/12/2021
SCHEMATIC TYPE INSTALL
DWG NO ECP #1-6

DESCRIPTION OF OPERATION: Fire System #1 CORE Protection (FS1). 1" CORE Appliance Manifold Package with Self Cleaning. Installed in Hood Utility Cabinet with integral hood prewire panel.

CORE TOTAL FLOOD PROTECTION PLUMBING DETAIL

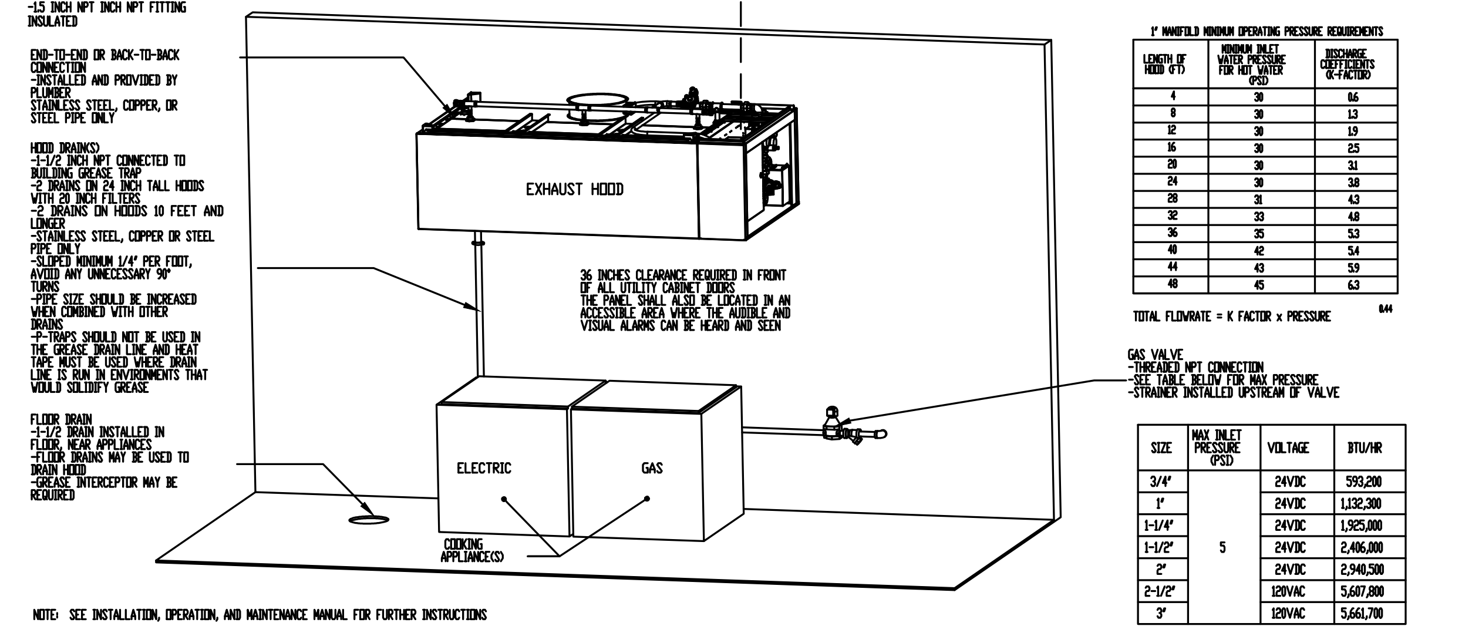
03/06/2017 Rev. 15

FS-1: MASTER

PLUMBER:
1. CONNECT HOT WATER LINE; **PVC, COPPER OR STAINLESS STEEL PIPE ONLY
2. CONNECT HOOD DRAIN(S) STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY
3. CONNECT ALL END-TO-END AND BACK-TO-BACK HOOD WATER LINE CONNECTIONS (PLUMBING IS FIELD SUPPLIED FOR THIS) FIELD PLUMBING MUST NOT EXCEED HEIGHT OF VACUUM BREAKER IN MAIN UTILITY CABINET REMOVE PLUG FROM MAIN HOOD SPRAY BAR AND CONNECT TO NEXT HOOD STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY
4. PLUMB GAS VALVE, STRAINER MUST BE INSTALLED UPSTREAM OF VALVE
5. INSTALL FLOOR DRAIN
6. INSTALL BACKFLOW PREVENTER IF CODE REQUIRES

PLUMBING CONTRACTOR REQUIREMENT

ITEM	CONNECTION	TEMPERATURE	PRESSURE	FLOW RATE	COMMENTS
HOT WATER LINE	1.5 INCH NPT	140 to 170°F	31 PSI TO 70 PSI	18.9 GPM	INSULATE HOT WATER PIPE, MINIMUM PRESSURE DEPENDENT ON LENGTH AND CONFIGURATION OF HOOD SYSTEM
HOOD DRAIN(S)	1-1/2 INCH NPT	N/A	GRAVITY DRAIN	SEE ABOVE	2 DRAINS ON 24 INCH TALL HOODS WITH 20 INCH TALL FILTERS AND HOODS 10 FEET AND LONGER
END-TO-END CORE CONNECTION	VARIES	N/A	N/A	N/A	CONNECT WITH NPT PIPE, SEAL ALL THREADS, HOOD CONNECTION PROVIDED
BACK-TO-BACK CORE CONNECTION	VARIES	N/A	N/A	N/A	CONNECT WITH NPT PIPE, SEAL ALL THREADS, HOOD CONNECTION PROVIDED
GAS VALVE	VARIES	N/A	SEE TABLE	N/A	UP TO 2 INCHES NPT WITH 24V CONTROLS, 2-1/2 AND 3 INCH USE 120V CONTROL
FLOOR DRAIN(S)	1-1/2 INCH	N/A	GRAVITY DRAIN	N/A	USED TO HELP CLEAN UP FIRE SYSTEM DISCHARGE, GREASE INTERCEPTOR MAY BE REQUIRED
BACKFLOW PREVENTER DRAIN LINE (OPTIONAL)	INLET/OUTLET DRAIN	N/A	VARIES	N/A	INSTALLED WHEN PACKAGE HAS A BACKFLOW PREVENTER VALVE, SEE BACKFLOW PREVENTER VALVE MANUAL FOR DETAILS



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS
**PVC PIPING CANNOT BE WITHIN 10 FT OF HOOD, CONNECTIONS TO THE MANIFOLD MUST BE HARD PIPED WITH COPPER, OR STAINLESS STEEL.

JOB NO 4945847
MODEL NUMBER DCV-1111
JOB NAME WRG LLC (Bellveue,KY)
DRAWN BY
DATE 10/12/2021
SCHEMATIC TYPE INSTALL
DWG NO ECP #1-4

DESCRIPTION OF OPERATION: Fire System #1 CORE Protection (FS1). 1" CORE Appliance Manifold Package with Self Cleaning. Installed in Hood Utility Cabinet with integral hood prewire panel.

CORE TOTAL FLOOD PROTECTION LOW-VOLTAGE DETAIL

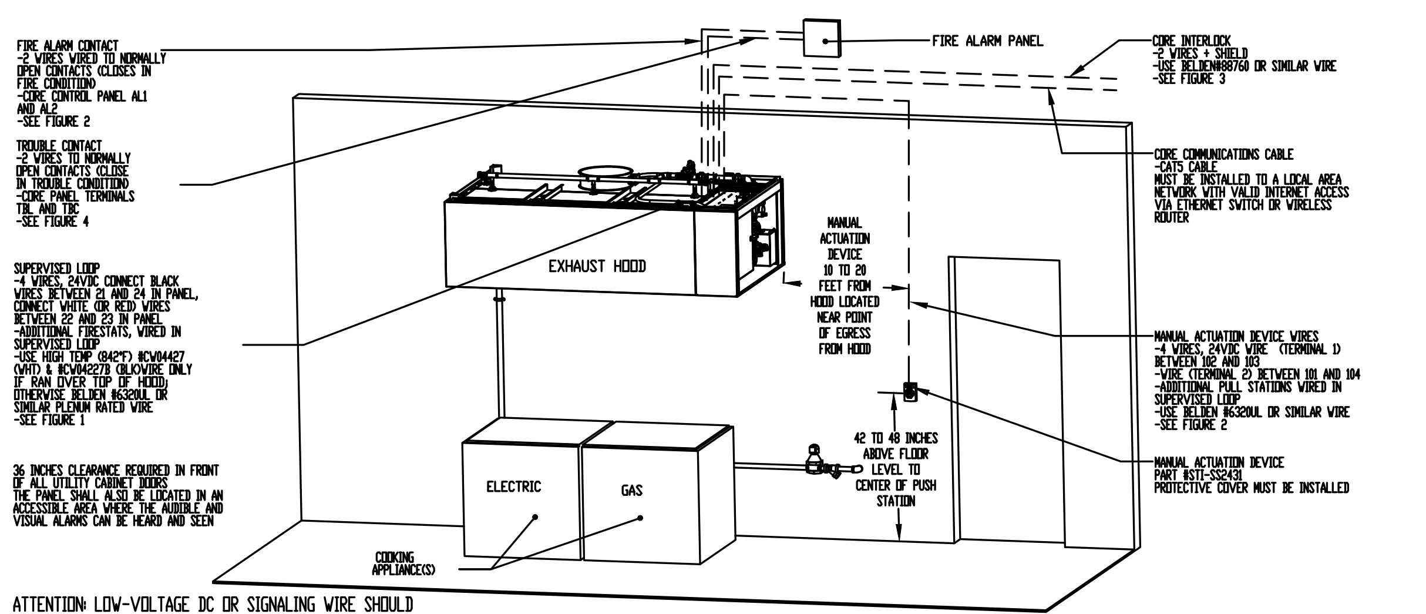
03/06/2017 Rev. 12

FS-1: MASTER

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

ALARM CONTRACTOR REQUIREMENT

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



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

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

JOB NO 4945847
MODEL NUMBER DCV-1111
JOB NAME WRG LLC (Bellveue,KY)
DRAWN BY
DATE 10/12/2021
SCHEMATIC TYPE INSTALL
DWG NO ECP #1-7

DESCRIPTION OF OPERATION: Fire System #1 CORE Protection (FS1). 1" CORE Appliance Manifold Package with Self Cleaning. Installed in Hood Utility Cabinet with integral hood prewire panel.

CORE TOTAL FLOOD PROTECTION SPRINKLER DETAIL

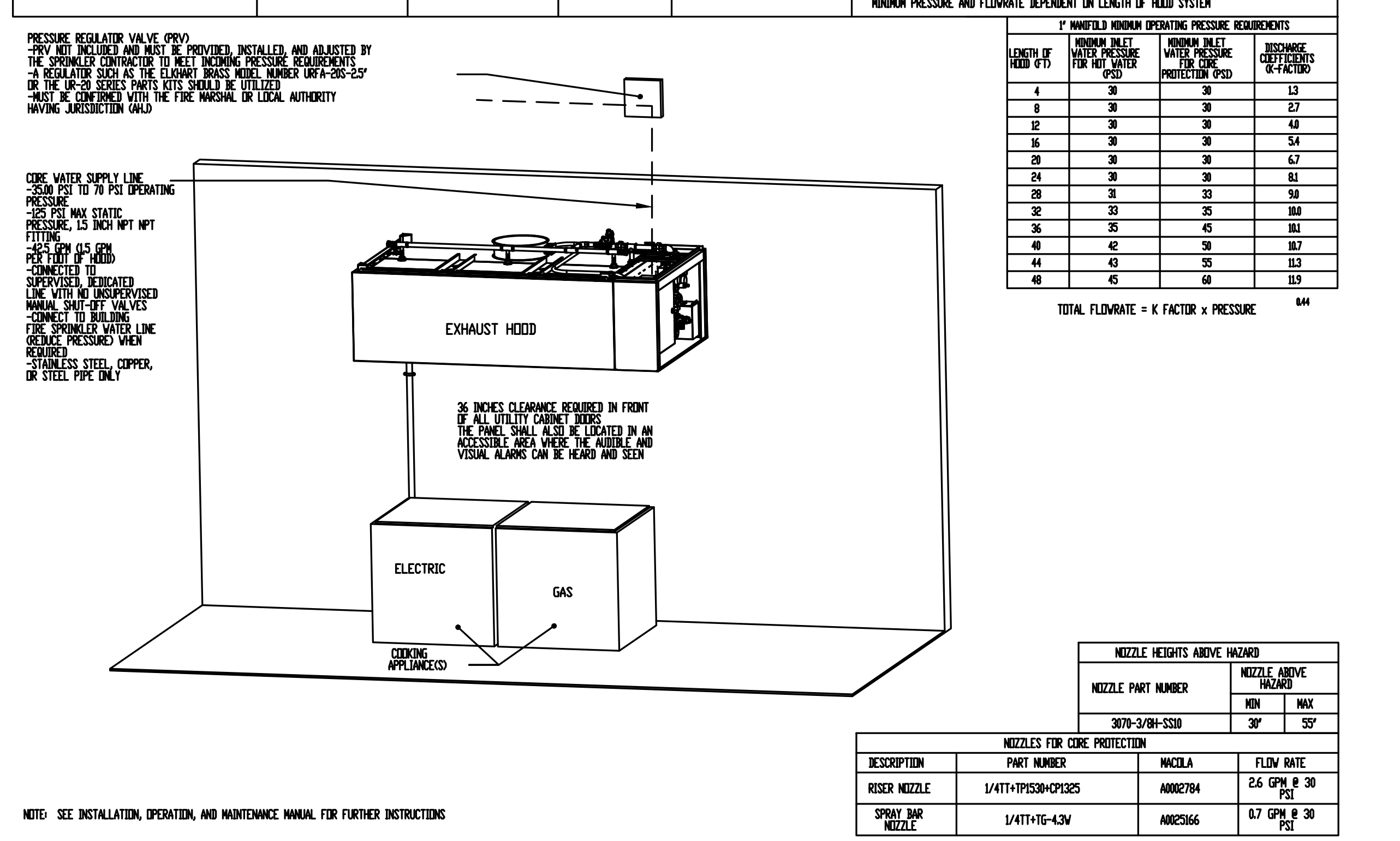
03/06/2017 Rev. 13

FS-1: MASTER

BUILDING SPRINKLER CONTRACTOR:
1. CONNECT CORE WATER LINE TO BUILDING WET SPRINKLER SYSTEM. STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

SPRINKLER CONTRACTOR REQUIREMENT

ITEM	CONNECTION	OPERATING PRESSURE	K-FACTOR	FLOW RATE	COMMENTS
CORE WATER SUPPLY LINE	1.5 INCH NPT	35.00 PSI TO 70 PSI	8.9	42.5 GPM	WATER LINE MUST BE SUPERVISED AND HAVE NO UNSUPERVISED MANUAL SHUT-OFF VALVES MINIMUM PRESSURE AND FLOWRATE DEPENDENT ON LENGTH OF HOOD SYSTEM



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

REVISIONS	
DESCRIPTION	DATE:
△	
△	
△	
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CAPTIVEAIRE
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WRG LLC (Bellveue,KY)
119 Fairfield Ave,
Bellevue, KY, 41073

DATE: 10/12/2021

DWG.#: 4945847

DRAWN BY: jcirilli

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

MASTER DRAWING

SHEET NO. 5