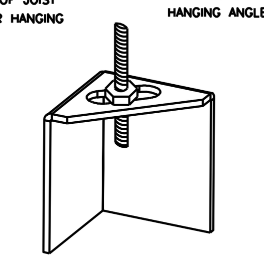


*ROD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR
HANGING ANGLE IS PRE-PUNCHED AT FACTORY

HANGING ANGLE DETAILS

HOOD STYLE / MODEL	450 DEGREES cfm/ft.	600 DEGREES cfm/ft.	700 DEGREES cfm/ft.
CANOPY ND2	150	200	250
WITH END PANELS (15% reduction)	127.5	170	212.5
SLOPED SND-2	228	294	-
ISLAND ND-2WI	269	300	350
NDI	346	422	475

ETL HOOD LISTING DETAIL

EXHAUST CFM=LENGTH OF HOOD X CFM/LIN.FT. (LOAD)

SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED

$$\text{TOTAL DUCT AREA}=144 \times \frac{\text{CFM}}{\text{FPM}(\bullet)}$$

$$\text{DUCT LENGTH}=\frac{\text{TOTAL DUCT AREA}}{\text{DUCT DEPTH}}$$

• CAPTIVE-AIRE VENTILATOR DUCT SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1500-1800 FPM AND A SUPPLY VELOCITY OF 1000 FPM.

CALCULATIONS UTILIZED

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:

LISTED #3054804-001 & #3054804-002 — STANDARD 710 — Intertek — BUILT IN ACCORDANCE WITH NFPA No. 96

Listed under ETL File number 3054804-001/002

BUILDING CODES

CAPTIVE-AIRE HOODS HAVE OPTIONAL CLEARANCE REDUCTION SYSTEMS AVAILABLE AS FOLLOWS:

MATERIAL	CLEARANCE REDUCTION SYSTEM
NON-COMBUSTIBLE	NONE REQUIRED
LIMITED-COMBUSTIBLE	3" UNINSULATED STANDOFF
COMBUSTIBLE	1" INSULATED STANDOFF

CLEARANCE TO COMBUSTIBLES

INSTALLATION

1. ALL ELECTRICAL "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY ELECTRICAL CONTRACTORS.
2. ALL PLUMBING "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY PLUMBING CONTRACTORS.
3. HANGING BRACKETS LOCATED AND WELDED AS SHOWN ON PLANS. ALL OTHER HANGER MATERIALS PROVIDED BY INSTALLING CONTRACTORS.
4. ALL CONNECTIONS FROM CAPTIVE-AIRE DUCT PER MECHANICAL CONTRACTORS'S PLANS.
5. COOKING EQUIPMENT TO SHUTOFF IN EVENT OF FIRE.
6. EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
7. ALL LIGHTS FIXTURE SHOWN INSTALLED BY CAPTIVE-AIRE ARE FACTORY PREWIRED. INTERCONNECTIONS BETWEEN HOODS AND TO SWITCHES BY ELECTRICAL CONTRACTORS.
8. LAMPS FOR LIGHT FIXTURES BY INSTALLING CONTRACTORS.
9. SEISMIC RESTAINTS ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
10. INSTALLING CONTRACTORS ASSUME ALL RELATED REPONSIBILITY FOR VERIFICATION OF DIMENSIONAL DATA CONTAINED ON THESE DOCUMENTS FOR ACCURACY, INTEGRATION, AND ADMINISTRATION OF CODE REQUIREMENTS IN EFFECT PRIOR TO ANY RELEASE FOR PRODUCTION OF EQUIPMENT SHOWN.

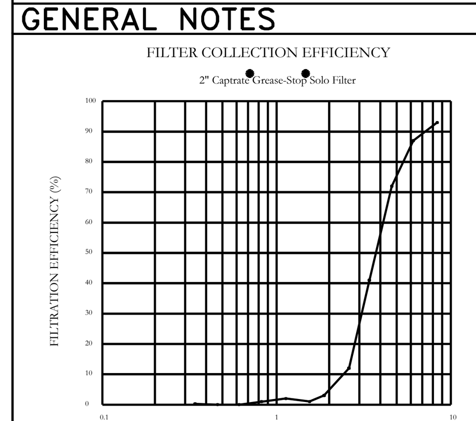
BALANCE

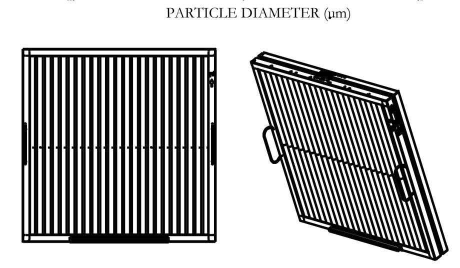
11. KITCHEN HOODS MUST BE BALANCED WITH KITCHEN.
12. KITCHEN SHALL BE NEGATIVE WITH RESPECT TO DINING AREA.
13. RESTAURANT SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE.

ADDITIONAL

14. WRITTEN HOOD DIMENSIONS HAVE PRECEDENCE OVER SCALE.
15. SIGNED AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE RECEIVED BY THE FACTORY PRIOR TO COMMENCEMENT OF FABRICATION.

GENERAL NOTES





CaptiveAire Captrate Solo Filter
ETL Listed Grease Extracting Filters
Made From 430 Stainless Steel

FILTER DETAIL

FOR QUESTIONS, CALL THE
Maryland Office
REGION 32
PHONE: (800) 988 - 0881
EMAIL: reg32@captiveaire.com

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 – JOB#6393219

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	MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1	K-45	6030 ND-2-ACPSP-F	CAPTIVEAIRE	10' 7"	600 DEG	I	HEAVY	225	2381			4"	16"	2381	1705	-0.825"	1976	802	430 SS WHERE EXPOSED	ALONE	ALONE

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	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	K-45	CAPTRATE SOLO FILTER	7	20"	16"	85% SEE FILTER SPEC	6	L55 SERIES E26	NO	LEFT	12"x60"x30"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1155 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	K-45	FIELD WRAPPER 10.00" HIGH FRONT, RIGHT.
		RIGHT END STANDOFF (FINISHED) 1" WIDE 60" LONG INSULATED.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		RIGHT WALL AS END PANEL.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1	K-45	Front	140"	24"	6"	MUA	12"	28"		658	0.165"
						MUA	12"	28"		658	0.165"
						MUA	12"	28"		658	0.165"
						AC	8"	24"		401	0.094"
						AC	8"	24"		401	0.094"

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE

HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT

___' - ___"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE ____________
YOUR TITLE ____________ DATE ____________

VERIFY CEILING HEIGHT

___' - ___"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE ____________
Your Title ____________ Date ____________

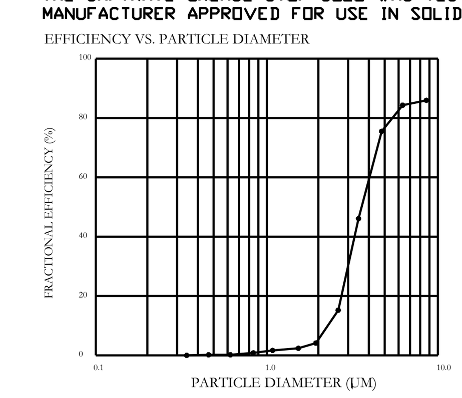
SPECIFICATION: CAPTRATE• GREASE-STOP• SOLO FILTER

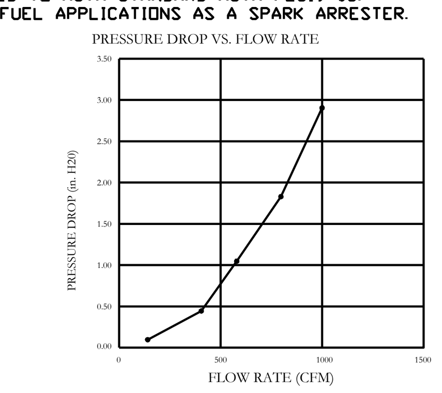
THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

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.

HVAC DISTRIBUTION NOTE

IT IS RECOMMENDED NOT TO INSTALL HIGH VELOCITY DIFFUSERS OR HVAC RETURNS WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

EXHAUST HOOD DETAILS

REVISIONS
DESCRIPTION	DATE

CAPTIVEAIRE
www.captiveaire.com
Maryland Office
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988 - 0881 FAX: 9192275931 EMAIL: reg32@captiveaire.com

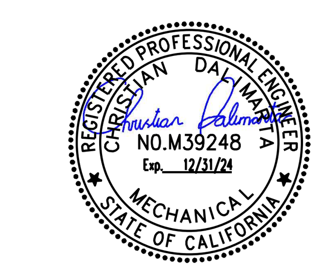
CAVA - La Habra, CA
1360 South Beach Boulevard,Suite D
La Habra, CA, 90631

DATE: 12/7/2023
DWG.#: 6393219
DRAWN BY: AS-32
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

valerio
5858 Wilshire Blvd #200 T:323.954.8996
Los Angeles, CA 90036
381 Park Ave South #823 T:212.252.8996
New York, NY 10016
www.valerioinc.com info@valerioinc.com

CONSULTANT:
ACIES ENGINEERING
400 N McCarthy Blvd Suite250,
Milpitas, CA 95035
(408)522-5255

SEAL



PROJECT

CAVA

CAVA
LOCATION
1360 S BEACH BLVD SUITE D
LA HABRA, CA 90631

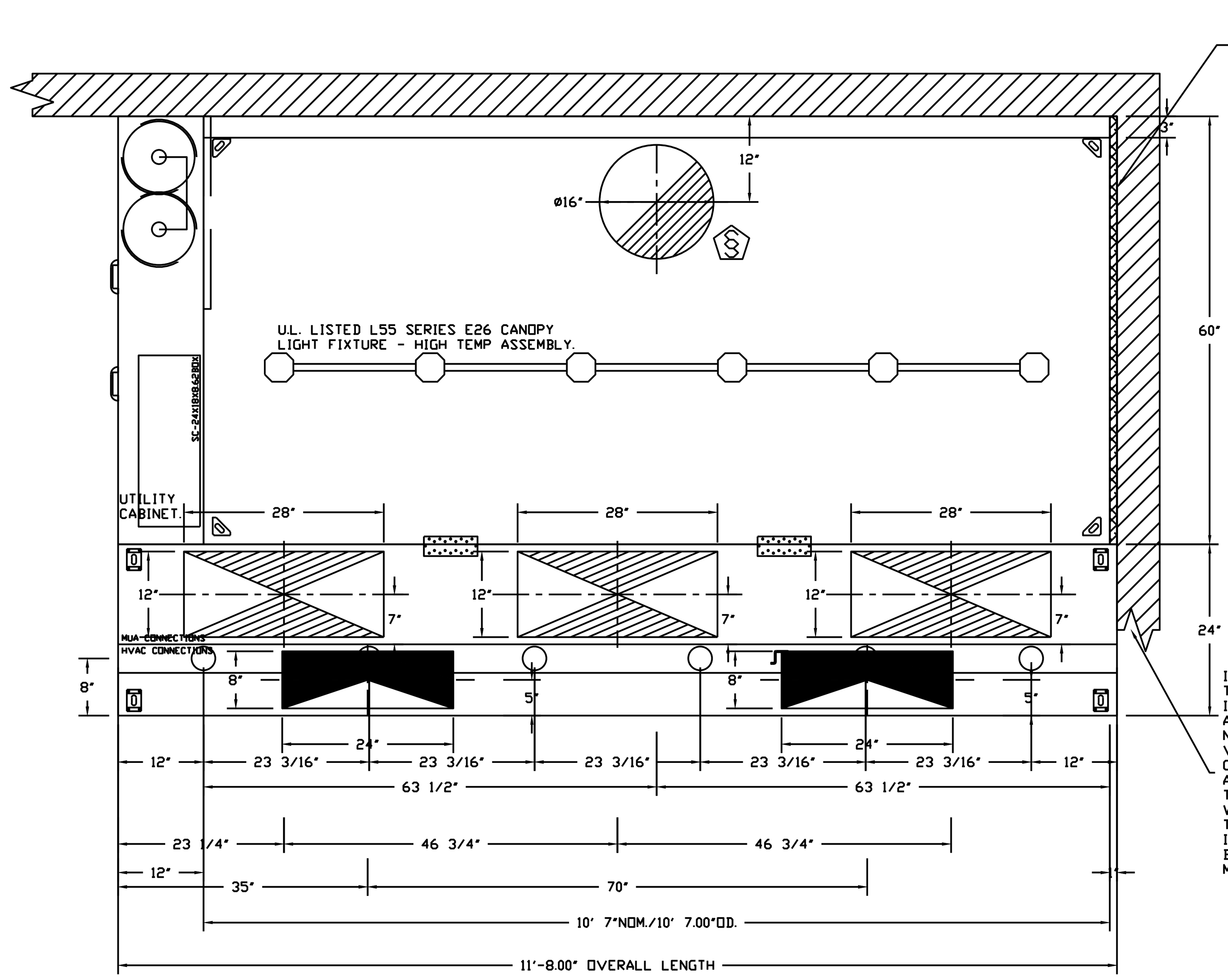
	DATE	DESCRIPTION
1	02/23/24	PC COMMENTS

MECHANICAL DETAILS III

Date Modified:
Date Created:
Scale: AS INDICATED
Project No.: 3388-23-133
Drawn By: MA
CAD File:

HOOD DETAILS (FOR REFERENCE ONLY) | SCALE NOT TO SCALE | 1

M6.3

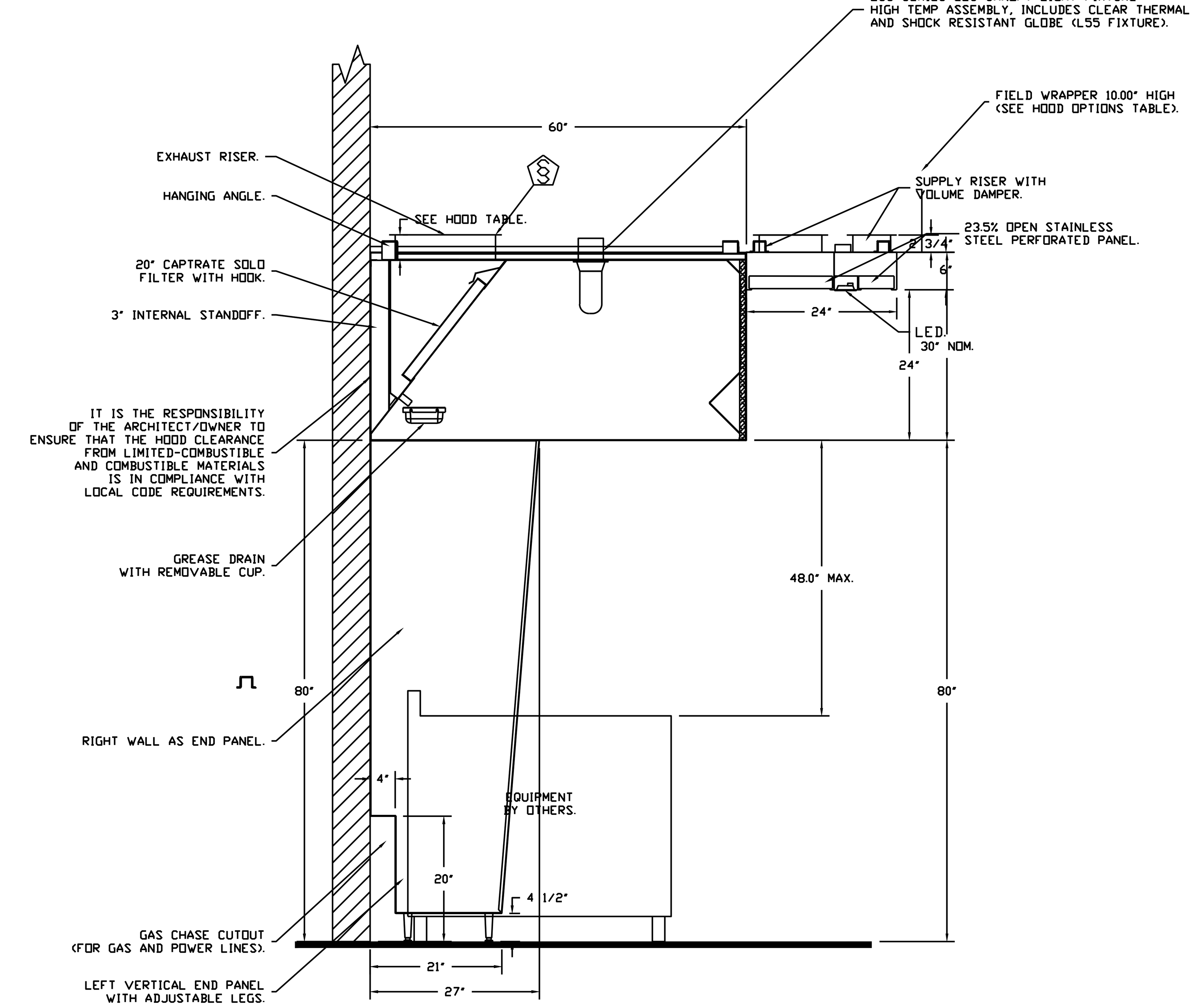


INSTALLER MUST CONFIRM HOOD IS INSTALLED SUCH THAT THE SPECIFIED WALL, ACTING AS AN END PANEL, IS MATED TIGHT TO THE CORRECT END OF HOOD TO ACHIEVE A REDUCED MINIMUM EXHAUST CFM LISTING. NON-COMPLIANCE WILL NULLIFY THE ETL LISTING, VOID THE MANUFACTURER'S WARRANTY, AND HOLD THE CONTRACTOR LIABLE FOR ANY AND ALL LOSSES, COSTS, AND EXPENSES RELATED TO THE NON-CONFORMANCE OF THE MANUFACTURER'S SPECIFIED INSTRUCTION. THE WALL ACTING AS AN END PANEL MUST EXTEND NO LESS THAN 20" FROM THE INTERSECTING WALL ON WHICH HOOD IS MOUNTED AND MUST EXTEND NO LESS THAN 20" UNDER BOTTOM OF HOOD TO BE ELIGIBLE FOR REDUCED MINIMUM EXHAUST CFM LISTING.

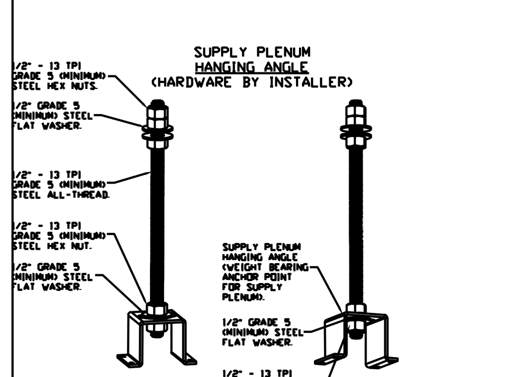
LIGHTING FOR ACPSP JOB # 6393219 - HOOD #1
INPUT: 120V AC, 1 PHASE, 50/60HZ, 3.5 WATTS PER LIGHT.
TO CONTROL LIGHTS WITH HOOD LIGHT SWITCH, WIRE PER HOOD ELECTRICAL CONTROL PANEL SCHEMATIC.
TO CONTROL LIGHTS WITH BUILDING LIGHT SWITCH, WIRE BLACK AND WHITE WIRE TO A 120VAC SERVICE.
END TO END ACPSPS REQUIRE 120VAC FIELD WIRING FROM J-BOX TO J-BOX. REPLACE LIGHTS WITH LED LIGHTS ONLY.

PLAN VIEW - HOOD #1 (K-45)
10' 7.00" LONG 6030ND-2-ACPSP-F

ACPSP SHIPS LOOSE FOR FIELD INSTALLATION

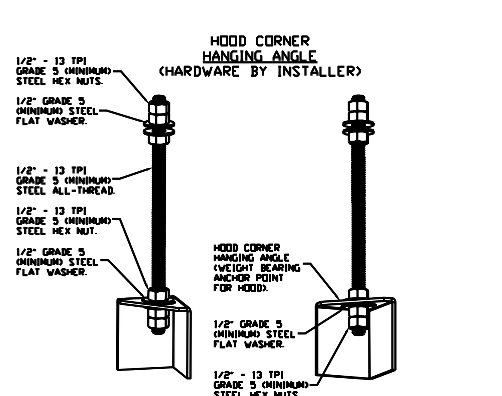


SECTION VIEW - MODEL 6030ND-2-ACPSP-F
HOOD - #1 (K-45)



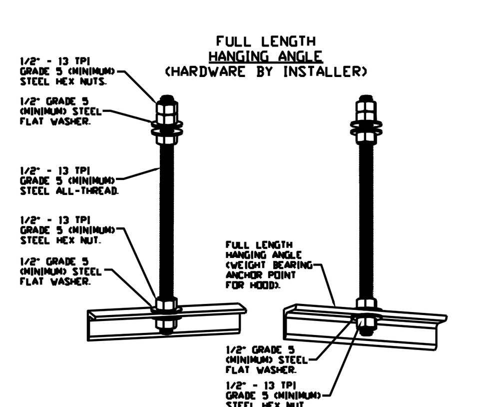
ASSEMBLY INSTRUCTIONS

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 ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



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.



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 ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

REVISIONS

DESCRIPTION	DATE:
△	
△	
△	
△	

CAPTIVEAIRE
www.captiveaire.com
Maryland Office
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988 - 0881 FAX: 9192275931 EMAIL: reg32@captiveaire.com

CAVA - La Habra, CA
1360 South Beach Boulevard,Suite D
La Habra, CA, 90631

DATE: 12/7/2023

DWG.#: 6393219

DRAWN BY: AS-32

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

MASTER DRAWING

SHEET NO. 2

valerio
5858 Wilshire Blvd #200 T:323.954.8996
Los Angeles, CA 90036
381 Park Ave South #823 T:212.252.8996
New York, NY 10016
www.valerioinc.com info@valerioinc.com

CONSULTANT:
ACIES ENGINEERING
400 N McCarthy Blvd Suite250,
Milpitas, CA 95035
(408)522-5255

SEAL

REGISTERED PROFESSIONAL ENGINEER
CHRISTIAN DALMAU
NO.M39248
Exp. 12/31/24
MECHANICAL
STATE OF CALIFORNIA

PROJECT

CAVA

CAVA
LOCATION
1360 S BEACH BLVD SUITE D
LA HABRA, CA 90631

△	DATE	DESCRIPTION
△ 1	02/23/24	PC COMMENTS

MECHANICAL
DETAILS IV

Date Modified:	
Date Created:	
Scale:	AS INDICATED
Project No.:	3388-23-133
Drawn By:	MA
CAD File:	

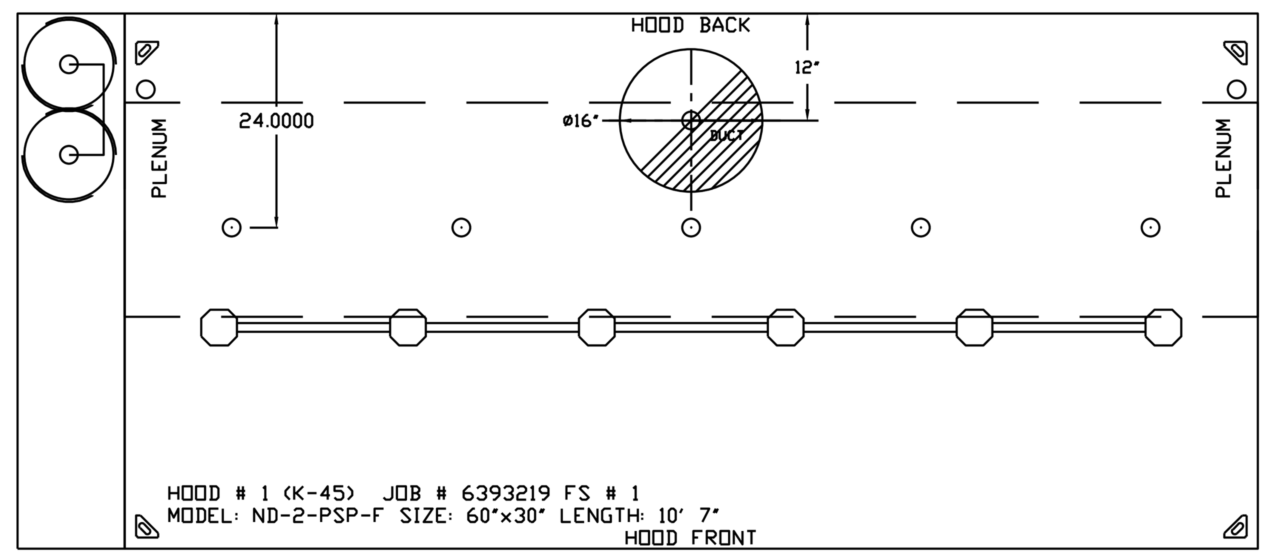
HOOD DETAILS (FOR REFERENCE ONLY) | SCALE: NOT TO SCALE | 1

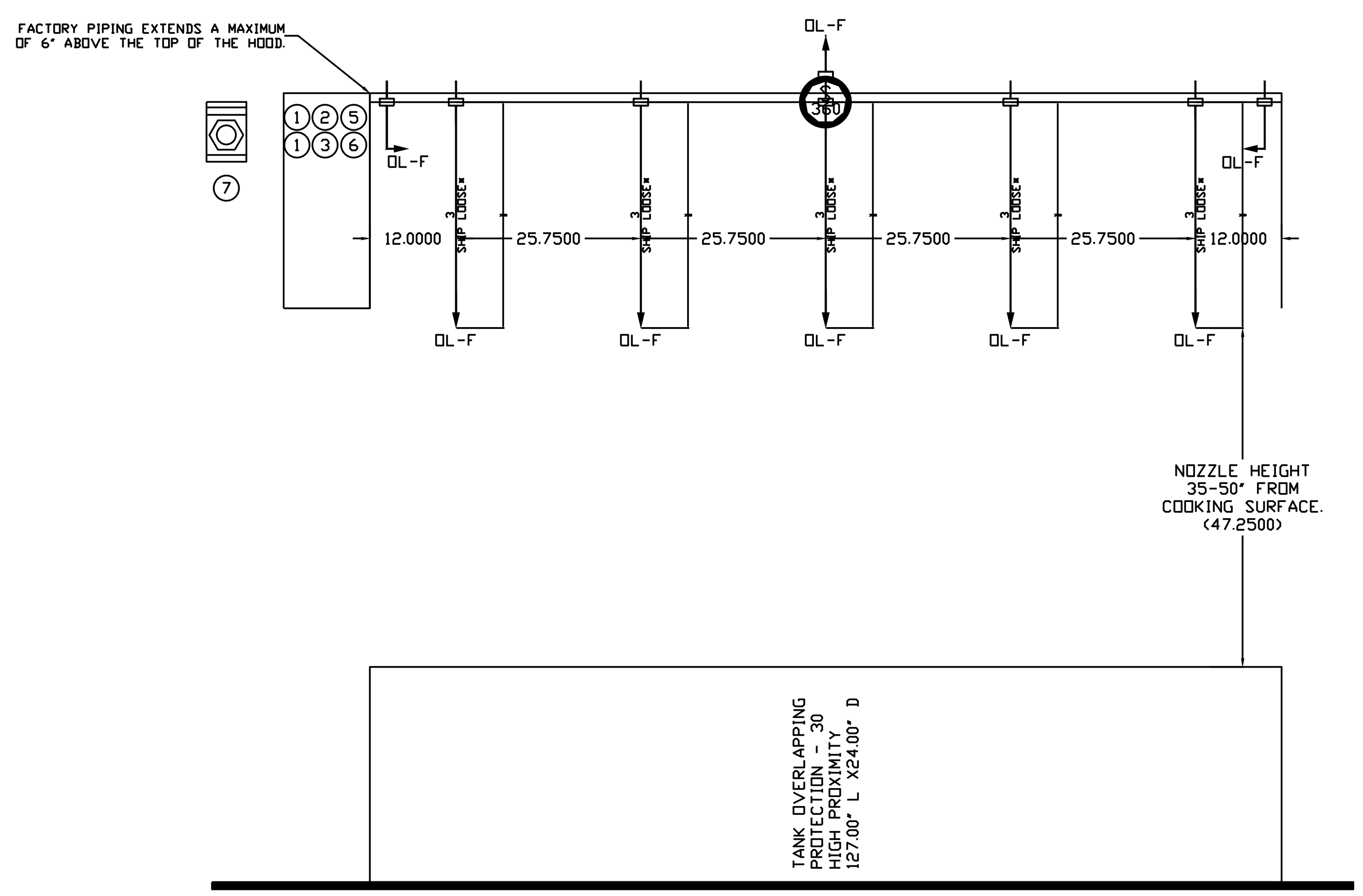
M6.4

FIRE SYSTEM INFORMATION – JOB#6393219

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	40	37	FIRE CABINET LEFT	LEFT, HOOD 1

- SYSTEM REQUIRES A MINIMUM OF 7 FT OF EQUIVALENT PIPE LENGTH BETWEEN TANK AND NEAREST APPLIANCE NOZZLE FOR MOST APPLIANCES. EACH 90 DEGREE ELBOW ADDS 1.3 FT OF EQUIVALENT LENGTH. SEE MANUAL FOR DETAILS





NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 6393219.
JOB NAME: CAVA - LA HABRA, CA.

SYSTEM SIZE: TANK-SP-2 DESIGN FP: 37. MAXIMUM FP: 40.
HOOD # 1 10' 7.00" LONG x 60" WIDE x 30" HIGH.
RISER # 1 SIZE: 16" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND – FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Token ☐
Revise and Resubmit ☐
SIGNATURE ____________
Your Title ____________ Date ________

VERIFY MAKE/MODEL OF ALL COOKING APPLIANCES BENEATH HOOD PRIOR TO FABRICATION. CHANGES TO COOKING EQUIPMENT SPECIFICATION MAY RESULT IN ADDITIONAL FIRE SUPPRESSION SYSTEM INSTALLATION CHARGES.

SPECIFICATIONS

THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL)

THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.

THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FORMULATION DESIGNED FOR FLAME KNOCKDOWN AND SECUREMENT OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.

THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET / LINKAGE ASSEMBLY.

FIRE SUPPRESSION SYSTEM DETAILS

REVISIONS
DESCRIPTION	DATE

CAPTIVEAIRE
Maryland Office
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988 - 0881 FAX: 9192275931 EMAIL: reg32@captiveaire.com
www.captiveaire.com

CAVA - La Habra, CA
1360 South Beach Boulevard,Suite D
La Habra, CA, 90631

DATE: 12/7/2023
DWG.#: 6393219
DRAWN BY: AS-32
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 3

valerio
5858 Wilshire Blvd #200 T:323.954.8996
Los Angeles, CA 90036
381 Park Ave South #823 T:212.252.8996
New York, NY 10016
www.valerioinc.com info@valerioinc.com

CONSULTANT:

ACIES ENGINEERING
400 N McCarthy Blvd Suite250,
Milpitas, CA 95035
(408)522-5255

SEAL

REGISTERED PROFESSIONAL ENGINEER CHRISTIAN DALMEIJER NO.M39248 Exp. 12/31/24 MECHANICAL STATE OF CALIFORNIA

PROJECT

CAVA

CAVA
LOCATION
1360 S BEACH BLVD SUITE D
LA HABRA, CA 90631

△	DATE	DESCRIPTION
△	02/23/24	PC COMMENTS

MECHANICAL DETAILS V

Date Modified:
Date Created:
Scale: AS INDICATED
Project No.: 3388-23-133
Drawn By: MA
CAD File:

HOOD DETAILS (FOR REFERENCE ONLY) | SCALE NOT TO SCALE | 1

M6.5

EXHAUST FAN INFORMATION – JOB#6393219

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	K-33B	1	DU85HFA	CAPTIVEAIRE	2381	1.000	1543	TEAO-ECM	1.000	0.7160	1	208	6.9	753 FPM	93	16.6

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	K-33C	A1-15D-MPU	1	3	208-230	3 PHASE	60 HZ	11.7 AMPS	8.46 AMPS	20 AMPS	14 AWG	14

MUA FAN INFORMATION – JOB#6393219

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	K-33C	1	A1-15D-MPU	15MF-1-MOD	A1	1100	1976	0.750	2100	ODP,PREMIUM	2.000	1.4160	3	208	6.1	7.7A	15A	1033	30.1

COILS – JOB#6393219

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING											HEATING								
				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	ENTERING DB TEMP	LEAVING DB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	STEAM PRESSURE	TOTAL CAPACITY	SENSIBLE CAPACITY
2	K-33C	DX	1976	90.0°F	68.0°F	77.4°F	63.5°F	---	---	---	---	28.6 MBH	25.8 MBH	2.8 MBH	---	---	---	---	---	---	---	---	---

FAN UNIT NO	TAG	FAN UNIT MODEL #	HEATING MODE ENTERING DB TEMP	HEATING MODE TEMP RISE	HEATING MODE DISCHARGE DB TEMP
2	K-33C	A1-15D-MPU	43.0°F	13.0°F	56.0°F

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	K-33B	1	GREASE BOX
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
2	K-33C	1	SIZE 1 UNTEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	3 TON SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION WITH HEAT PUMP FOR SIZE 1 MUA (1,100 TO 1,800 CFM), 208V/230V, 3 PHASE
		1	INSULATED BLOWER SECTION SIZE 1-2 COMMERCIAL
		1	MOD PACKAGE UNIT HEAT PUMP CONTROLS FOR UNTEMPERED FANS
		1	SIZE 1 COOLING COIL MOISTURE ELIMINATOR OPTION - ALLOWS COOLING COIL FACE VELOCITY TO INCREASE TO 650 FPM - INCREASES COOLING COIL MAX CFM TO 3650 CFM
		1	MIXING BOX SHELL FOR SIZE 1 MOD PACKAGE UNIT CONDENSER SUPPORT
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	2 YEAR PARTS WARRANTY

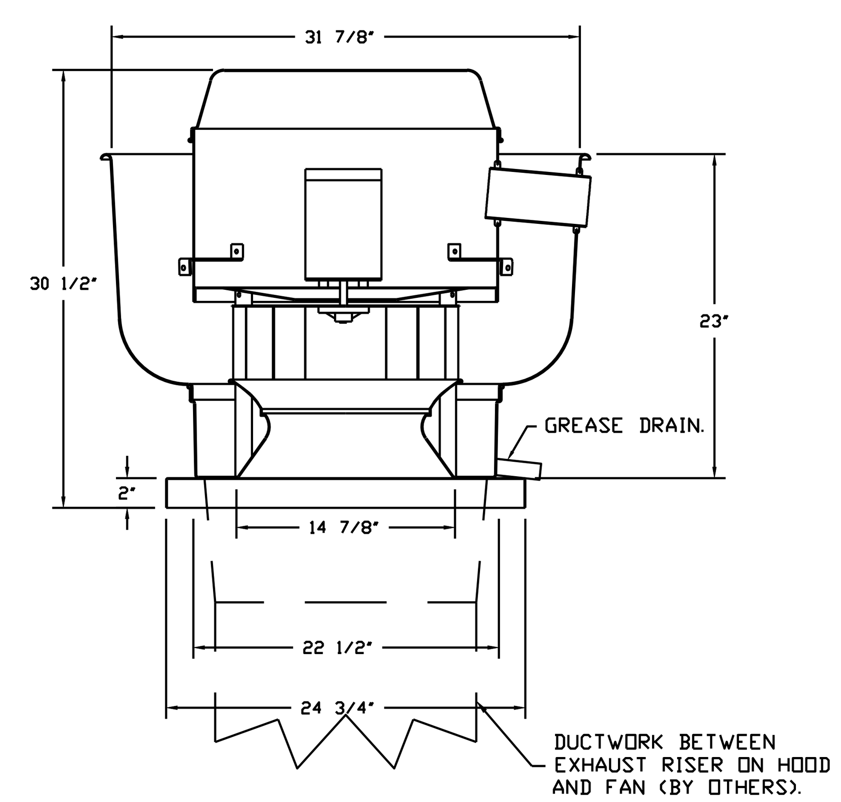
FAN ACCESSORIES

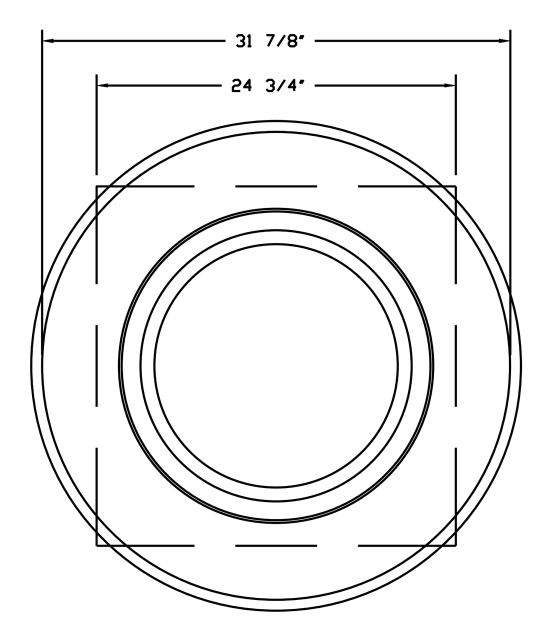
FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	K-33B	YES						
2	K-33C							

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-1	44 LBS	CURB	23.000"W X 23.000"L X 26.000"H VENTED HINGED.
2	# 2		79 LBS	RAIL	6.000"W X 21.000"L X 20.000"H.
2	# 2	MAU	79 LBS	CURB	21.000"W X 21.000"L X 20.000"H.
	# 2			RAIL	6.000"W X 21.000"L X 20.000"H.
	# 2			RAIL	4.000"W X 4.000"L X 36.000"H.

FAN #1 DU85HFA - EXHAUST FAN (K-33B)





TOP VIEW

FEATURES:

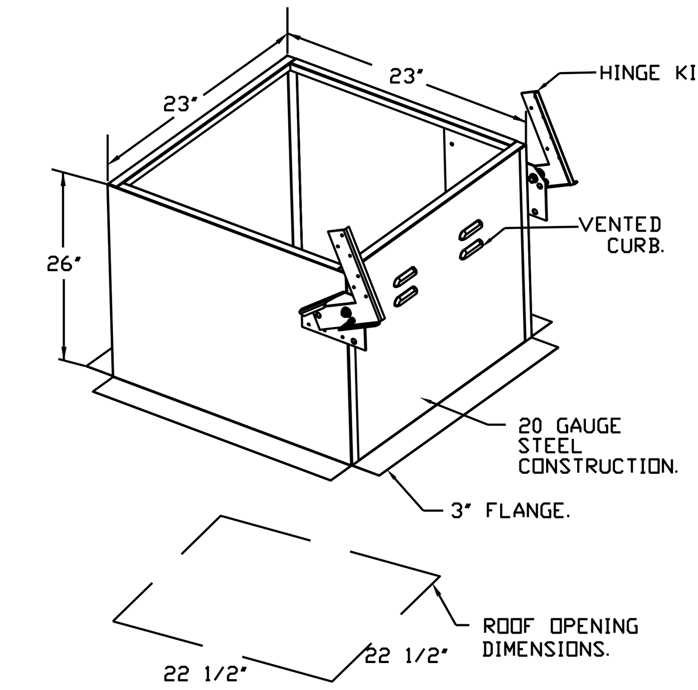
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

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

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE ______________________
Your Title ______________ Date ________

NOTES

DRAWING CONTAINS IMPORTANT INFORMATION FOR COORDINATION WITH M/E/P ENGINEER

KITCHEN FAN DETAILS

REVISIONS

	DESCRIPTION	DATE
△		
△		
△		
△		

CAPTIVEAIRE
www.captiveaire.com
Maryland Office
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 986 - 0881 FAX: 9192275931 EMAIL: reg32@captiveaire.com

CAVA - La Habra, CA
1360 South Beach Boulevard,Suite D
La Habra, CA, 90631

DATE: 12/7/2023
DWG.#: 6393219
DRAWN BY: AS-32
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 5

HOOD DETAILS (FOR REFERENCE ONLY) | SCALE NOT TO SCALE | 1

valerio

5858 Wilshire Blvd #200 T:323.954.8996
Los Angeles, CA 90036

381 Park Ave South #823 T:212.252.8996
New York, NY 10016

www.valerioinc.com info@valerioinc.com

CONSULTANT:

ACIES ENGINEERING
400 N McCarthy Blvd Suite250,
Milpitas, CA 95035
(408)522-5255

SEAL

REGISTERED PROFESSIONAL ENGINEER
CHRISTIAN DALMACIO
NO.M39248
Exp. 12/31/24
MECHANICAL
STATE OF CALIFORNIA

PROJECT

CAVA

CAVA
LOCATION
1360 S BEACH BLVD SUITE D
LA HABRA, CA 90631

△	DATE	DESCRIPTION
△1	02/23/24	PC COMMENTS

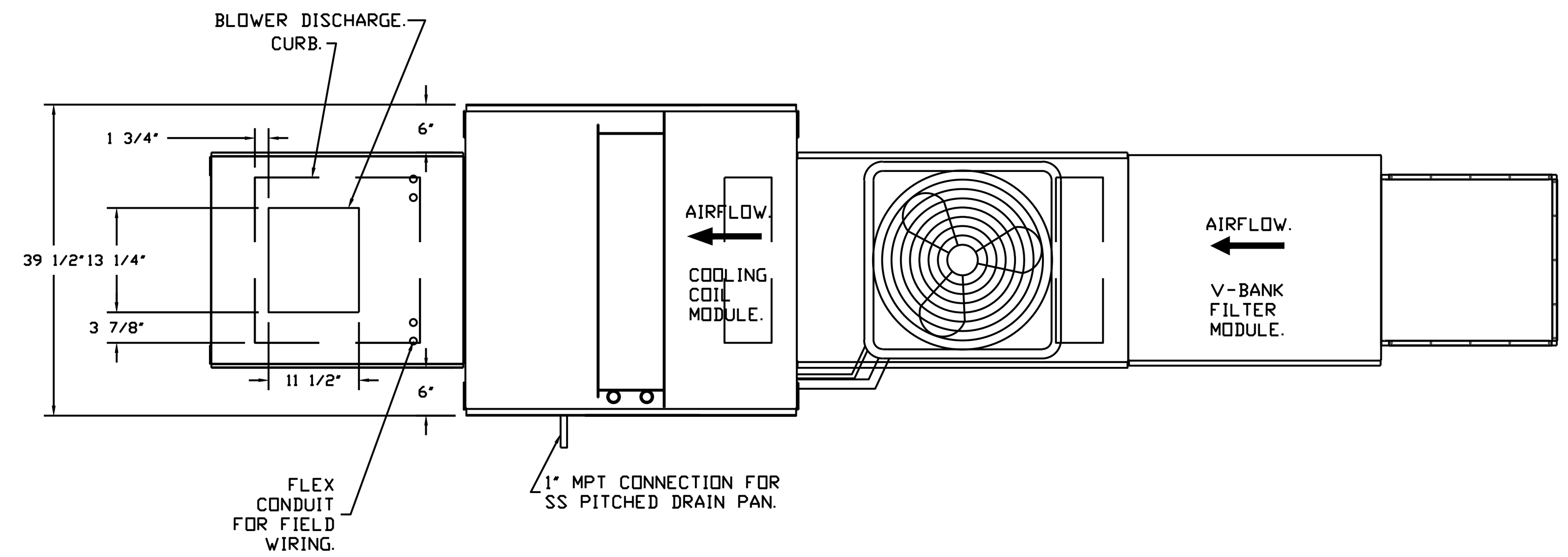
MECHANICAL DETAILS VI

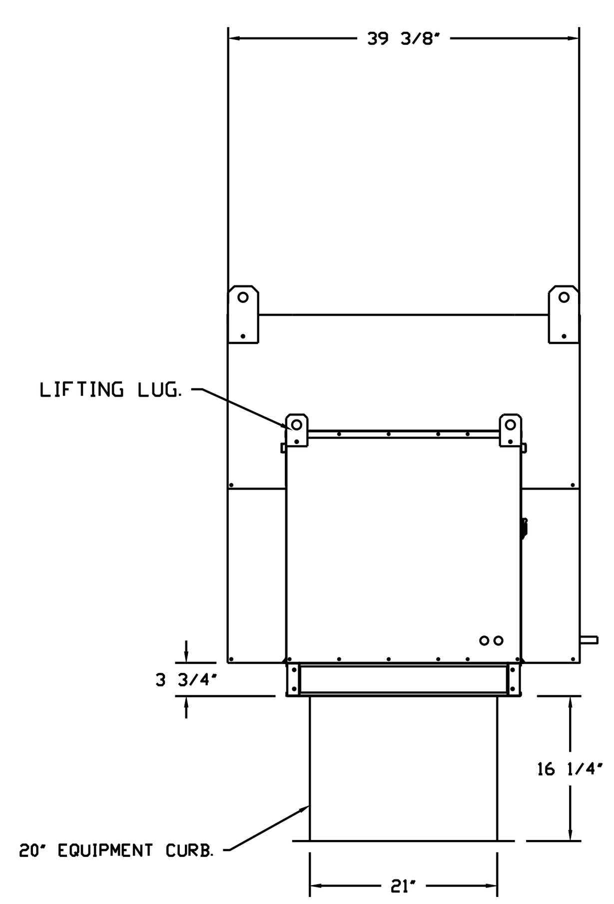
Date Modified:
Date Created:
Scale: AS INDICATED
Project No.: 3388-23-133
Drawn By: MA
CAD File:

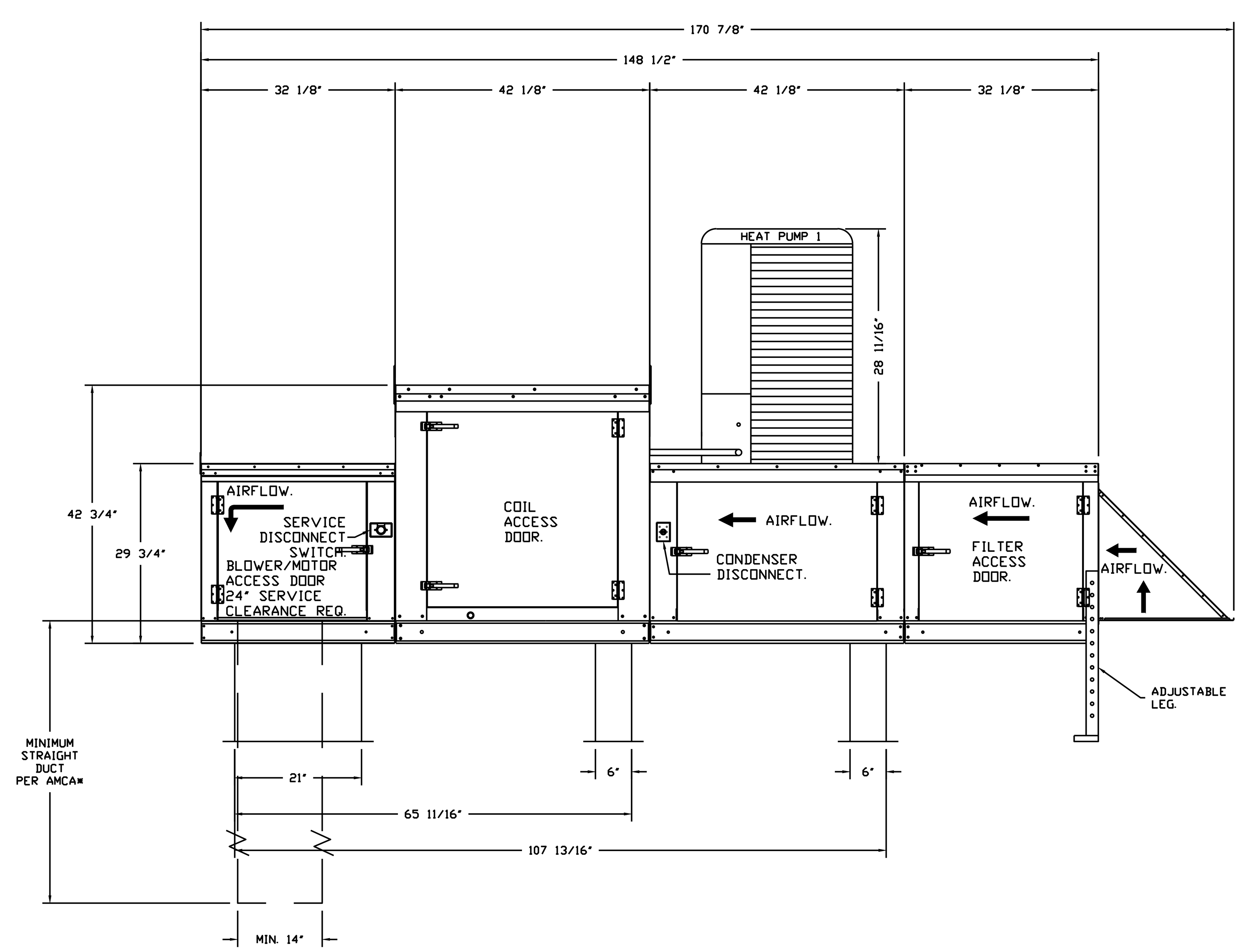
M6.6

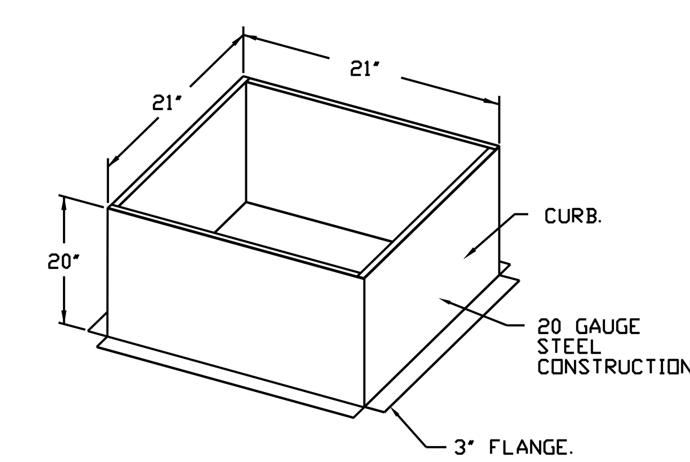
FAN #2 A1-15D-MPU - SUPPLY FAN (K-33C)
1. SUPPLY UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN IN SIZE #1 HOUSING.
2. V-BANK TA-13 FILTERS W/SCREEN INTAKE - OUTDOOR.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 1 UNTEMPERED DIRECT DRIVE AHUS.
5. 3 TON, SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION WITH HEAT PUMP FOR SIZE 1 MODULAR PACKAGED UNIT. INCLUDES HEAT PUMP, DX COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING. (1,100 TO 1,800 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 = 2EZ1001N.
6. INSULATED BLOWER HOUSING SIZES 1-2 COMMERCIAL MODULAR.
7. CONTROL PACKAGE FOR MOD PACKAGE UNIT HEAT PUMP UNIT. INCLUDES AIRFLOW PROVING SWITCH, RTULINK-ACHP BOARD AND TERMINAL BLOCKS.
8. SIZE 1 MOISTURE ELIMINATOR OPTION FOR DX COILS, MPUS AND CHILLED WATER COILS - ALLOWS COOLING COIL FACE VELOCITY TO INCREASE TO 650 FPM. INCREASES COOLING COIL MAX CFM TO 3650 CFM.
9. SUPPORT SHELL FOR SIZE 1 MODULAR PACKAGE UNIT. INCLUDES CONTROL VESTIBULE. INCLUDES CONDENSER SUPPORTS. DOES NOT INCLUDE RETURN AIR OR INLET AIR DAMPER.
10. 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.
11. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
12. 2 YEAR PARTS WARRANTY.

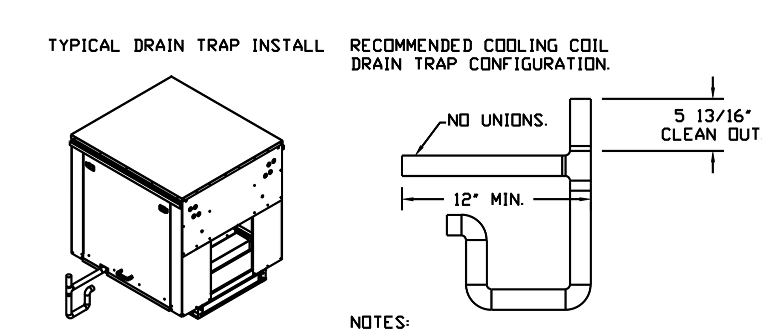
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 14" x 14".











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

REVISIONS

DESCRIPTION	DATE:

CAPTIVEAIRE
www.captiveaire.com
Maryland Office
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988 - 0881 FAX: 9192275931 EMAIL: reg32@captiveaire.com

CAVA - La Habra, CA
1360 South Beach Boulevard,Suite D
La Habra, CA, 90631

DATE: 12/7/2023
DWG.#: 6393219
DRAWN BY: AS-32
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 5

HOOD DETAILS (FOR REFERENCE ONLY) | SCALE NOT TO SCALE | 1

valerio
5858 Wilshire Blvd #200 T:323.954.8996
Los Angeles, CA 90036
381 Park Ave South #823 T:212.252.8996
New York, NY 10016
www.valerioinc.com info@valerioinc.com

CONSULTANT:
ACIES ENGINEERING
400 N McCarthy Blvd Suite250,
Milpitas, CA 95035
(408)522-5255

SEAL

REGISTERED PROFESSIONAL ENGINEER
CHRISTIAN DALMAU
NO.M39248
Exp. 12/31/24
MECHANICAL
STATE OF CALIFORNIA

PROJECT
CAVA
CAVA
LOCATION
1360 S BEACH BLVD SUITE D
LA HABRA, CA 90631

	DATE	DESCRIPTION
1	02/23/24	PC COMMENTS

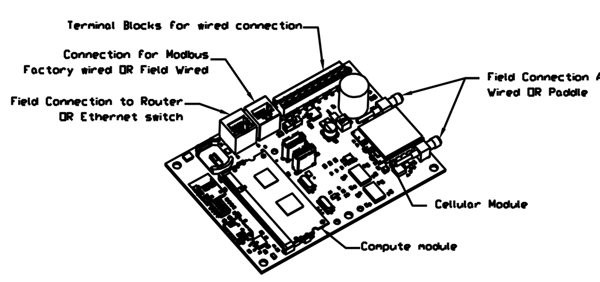
MECHANICAL DETAILS VII

Date Modified:
Date Created:
Scale: AS INDICATED
Project No.: 3388-23-133
Drawn By: MA
CAD File:

M6.7

ELECTRICAL PACKAGE – JOB#6393219

NO	TAG	PACKAGE #	LOCATION	SWITCHES LOCATION	SWITCHES QUANTITY	OPTION	FAN TAG	TYPE	Φ	HP	VOLT	FLA
1	K-33D	DCV-1111	UTILITY CABINET LEFT	UTILITY CABINET LEFT	1 LIGHT	SMART CONTROLS DCV	K-33B	EXHAUST	1	1.000	208	6.9
				HOOD # 1	1 FAN		K-33C	SUPPLY	3	2.000	208	6.1



CASlink Monitor and Control

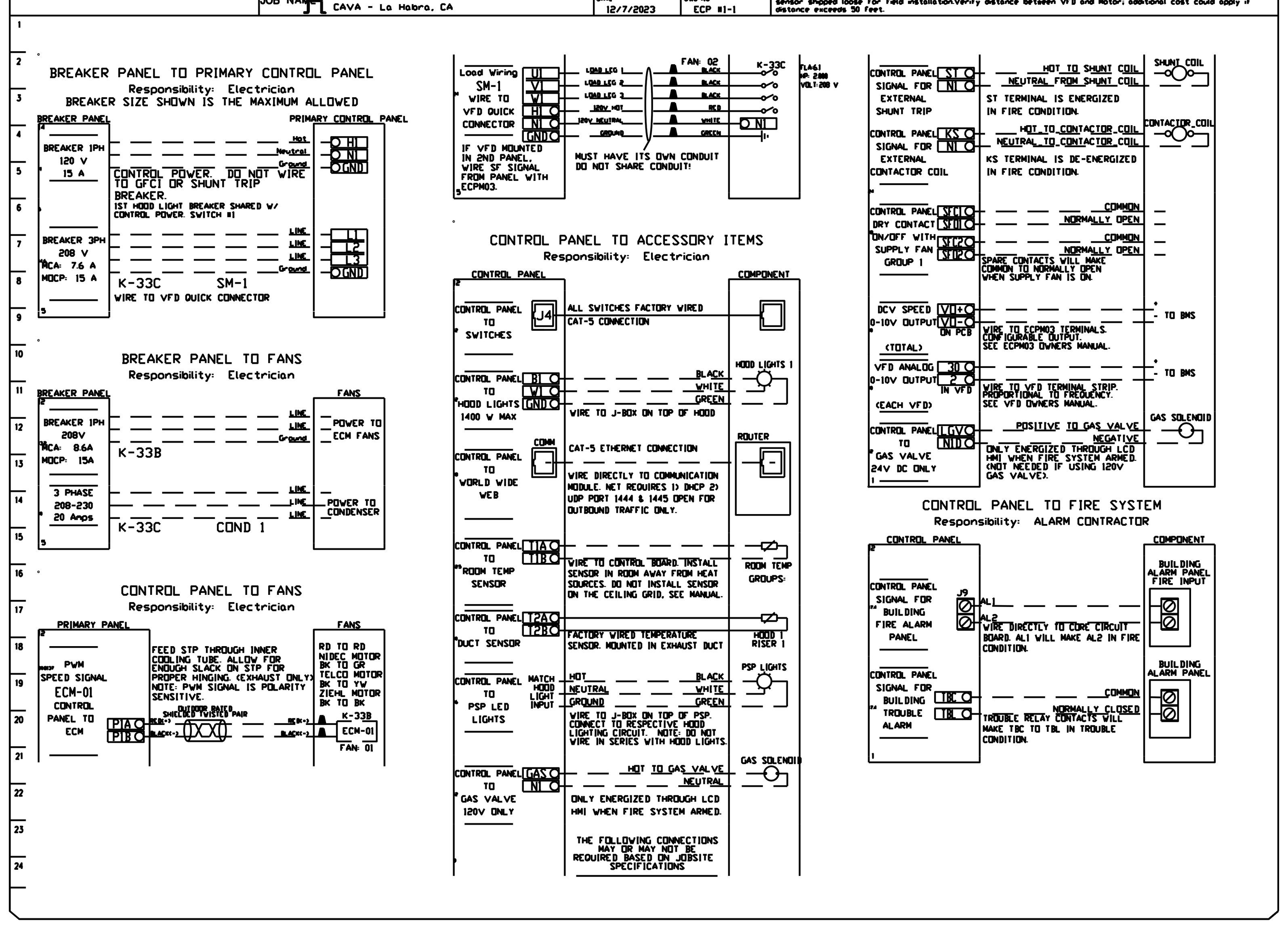
- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

MONITORING AND CONTROL POINTS LIST

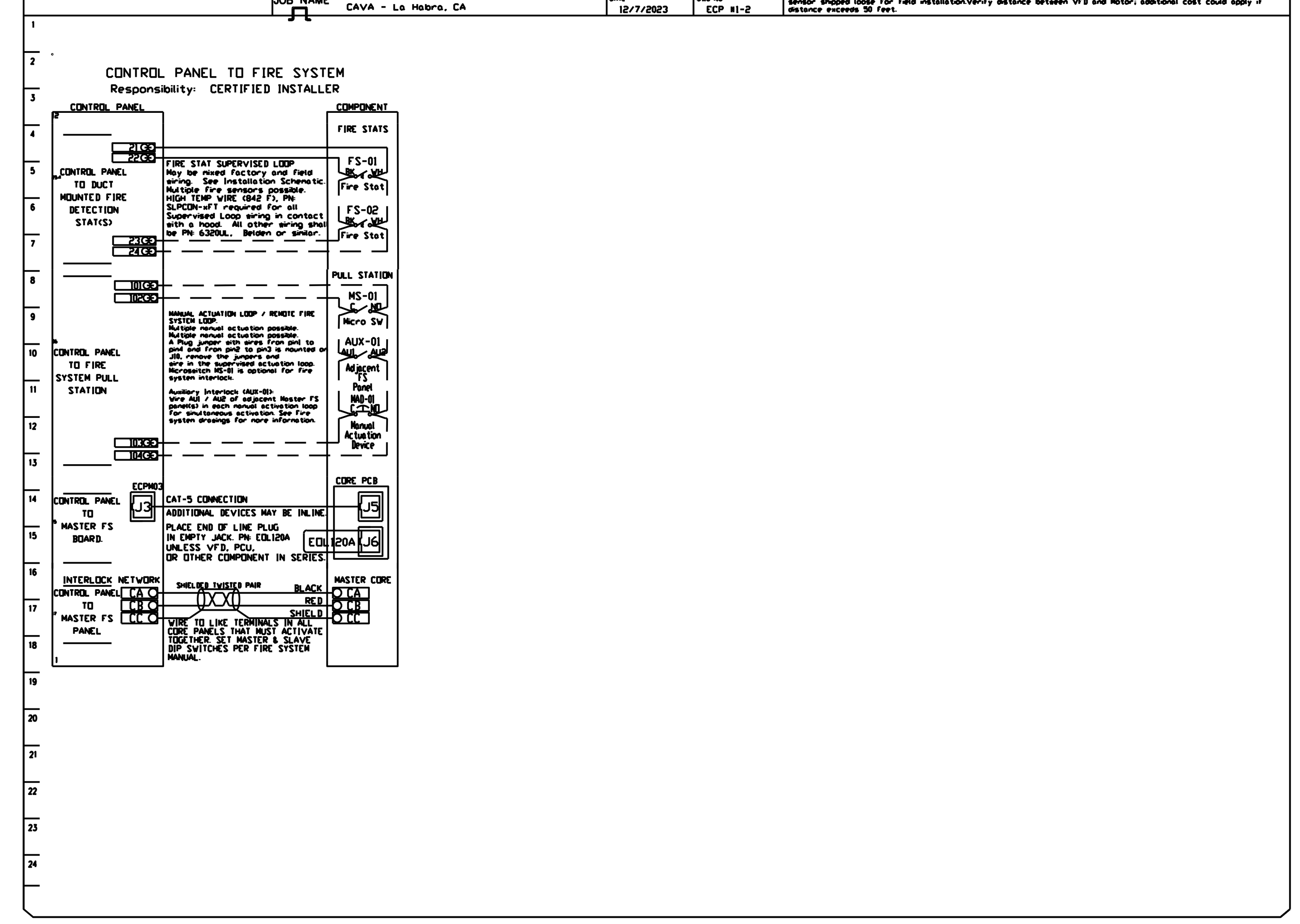
DCV Packages	Function
Room Temperature	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR
Fan Amperage	MONITOR
Fan Power	MONITOR
VFD Faults	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
PCU Faults	MONITOR
PCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressures	MONITOR
Prep Time Button	MONITOR & CONTROL
Fans Button	MONITOR & CONTROL
Lights Button	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL

SC Packages	Function
Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
PCU Faults	MONITOR
PCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressures	MONITOR
Fans Button(s)	MONITOR & CONTROL
Lights Button(s)	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL

JOB NO 6393219 | MODEL NUMBER DCV-1111 | JOB NAME CAVA - La Habra, CA | DATE 12/7/2023 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-1 | DESCRIPTION OF OPERATION:



JOB NO 6393219 | MODEL NUMBER DCV-1111 | JOB NAME CAVA - La Habra, CA | DATE 12/7/2023 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-2 | DESCRIPTION OF OPERATION:



JOB NO 6393219 | MODEL NUMBER DCV-1111 | JOB NAME CAVA - La Habra, CA | DATE 12/7/2023 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-3 | DESCRIPTION OF OPERATION: Fire System #1 TANK FS - 4.0/4.0

TANK PROTECTION ELECTRICAL DETAIL

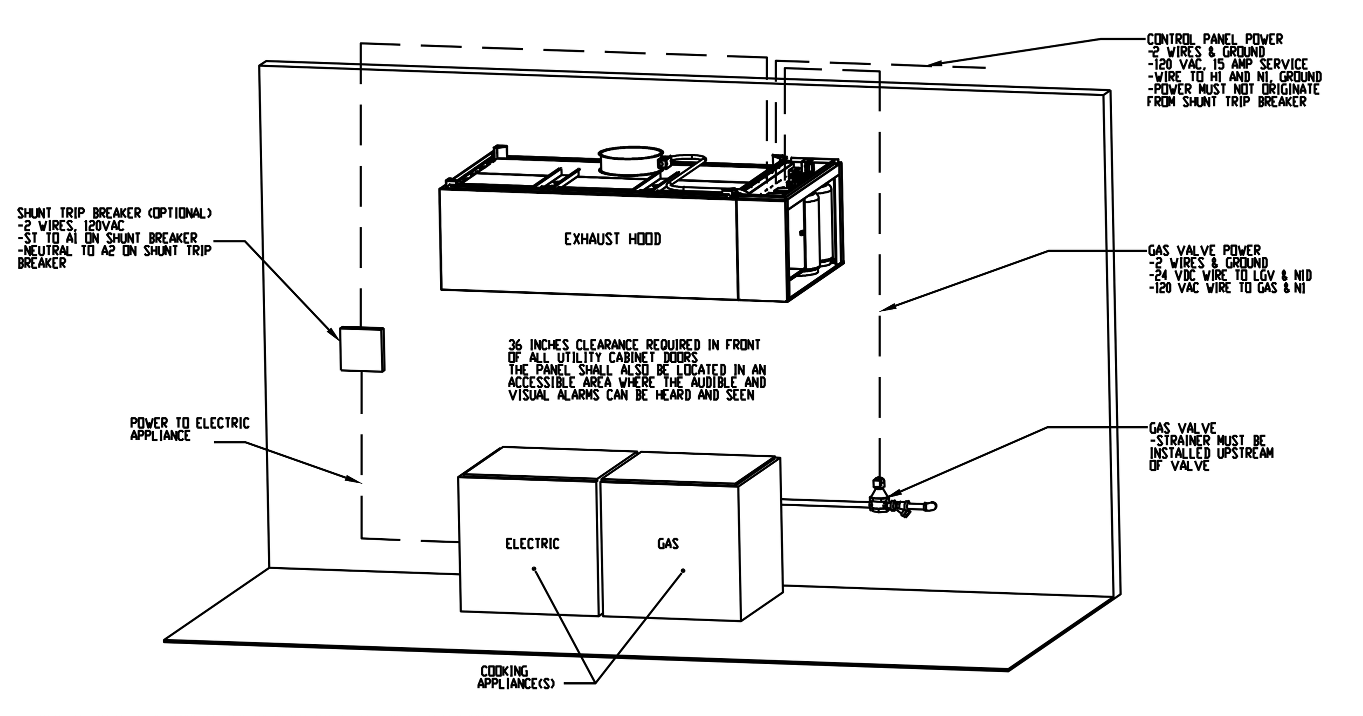
02/10/2021 Rev. 2

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	ST 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 120VAC 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

JOB NO 6393219 | MODEL NUMBER DCV-1111 | JOB NAME CAVA - La Habra, CA | DATE 12/7/2023 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-4 | DESCRIPTION OF OPERATION: Fire System #1 TANK FS - 4.0/4.0

TANK PROTECTION LOW-VOLTAGE DETAIL

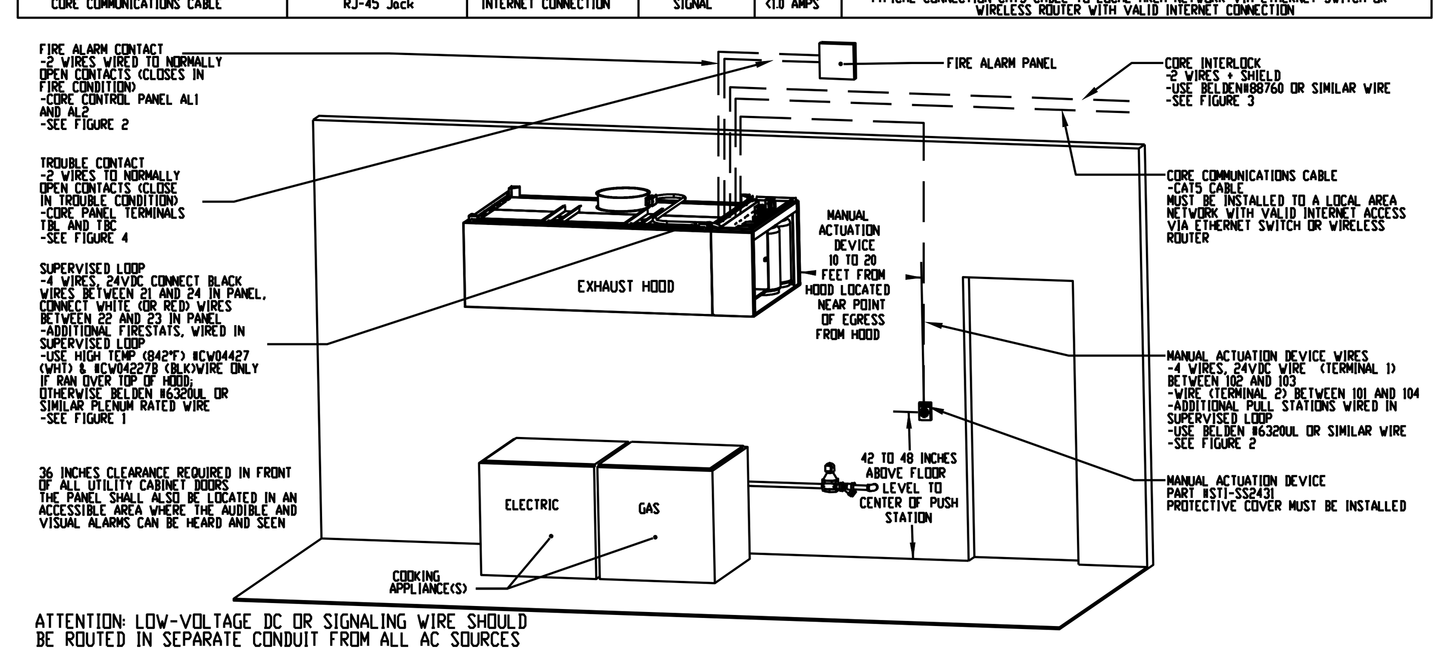
02/10/2021 Rev. 2

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. VERIFY FINAL FIRE SYSTEM TEST

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, TOK	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

REVISIONS

	DESCRIPTION	DATE
△		
△		
△		
△		

CAPTIVEAIRE
Maryland Office
www.captiveaire.com
8120 Woodmont Avenue, Suite 720, Bethesda, MD 20814 PHONE: (800) 988 - 0881 FAX: 9192275931 EMAIL: reg32@captiveaire.com

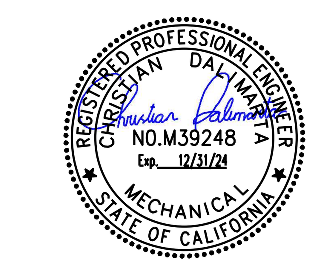
CAVA - La Habra, CA
1360 South Beach Boulevard,Suite D
La Habra, CA, 90631

DATE: 12/7/2023
DWG.#: 6393219
DRAWN BY: AS-32
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 8

valerio
5858 Wilshire Blvd #200 T:323.954.8996
Los Angeles, CA 90036
381 Park Ave South #823 T:212.252.8996
New York, NY 10016
www.valerioinc.com info@valerioinc.com

CONSULTANT:
ACIES ENGINEERING
400 N McCarthy Blvd Suite250,
Milpitas, CA 95035
(408)522-5255

SEAL



PROJECT

CAVA
LOCATION
1360 S BEACH BLVD SUITE D
LA HABRA, CA 90631

△	DATE	DESCRIPTION
1	02/23/24	PC COMMENTS

MECHANICAL DETAILS VIII

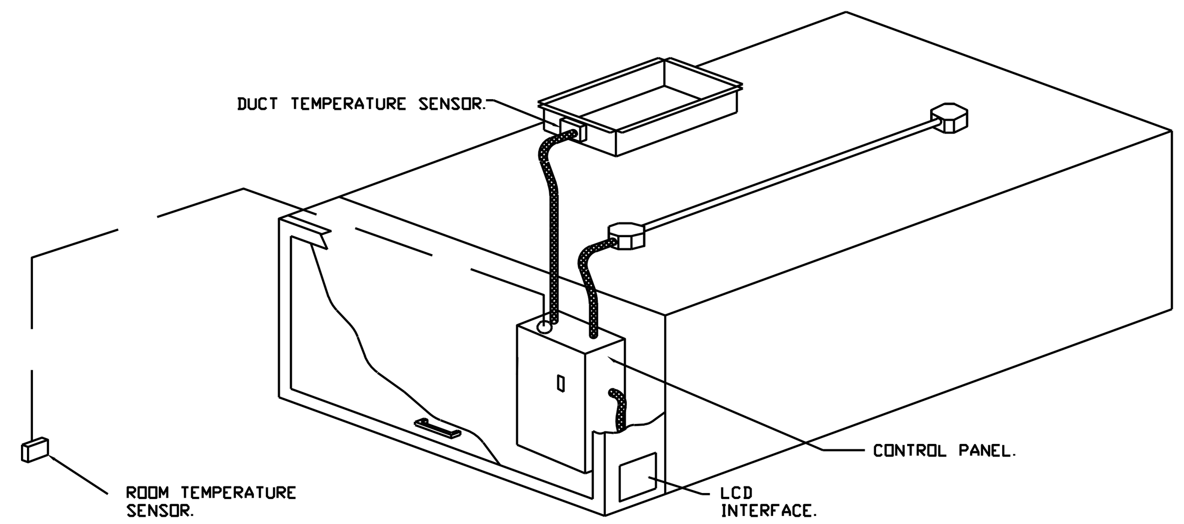
Date Modified:
Date Created:
Scale: AS INDICATED
Project No.: 3388-23-133
Drawn By: MA
CAD File:

HOOD DETAILS (FOR REFERENCE ONLY) | SCALE NOT TO SCALE | 1

M6.8

<u>DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:</u>

- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.



<u>TYPICAL HOOD CONTROL PANEL INSTALLATION</u>

<u>SEQUENCE OF OPERATIONS:</u>

THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

- <u>AUTOMATIC:</u> THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- <u>MANUAL:</u> THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- <u>SCHEDULE:</u> A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- <u>OTHER:</u> THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
- <u>FIRE:</u> UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

<u>SYSTEM DESIGN VERIFICATION (SDV)</u>

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

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

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

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE ______________________
Your Title ______________ Date ________

SEQUENCE OF OPERATION – HOOD CONTROLS

ELECTRICAL PACKAGE: FP SERIES

ALL POWER, LIGHTING, MICROSWITCH AND TEMPERATURE PROBE CONNECTIONS AND INTERLOCKS TO BE COMPLETED BY ELECTRICAL CONTRACTOR PER SCHEMATICS PROVIDED WITH EQUIPMENT.

TWO METHODS TO ACTIVATE EXHAUST SYSTEM:

Manual activation:
Operator presses the fan button to energize contactor(s) and start the exhaust fan(s). Supply fan(s), if present, will be activated by factory pre-wired interlock.

Automatic activation:
Turn on cooking appliances. Exhaust fan(s) [and supply fan(s), if present] will automatically energize when duct temperature exceeds pre-set differential with respect to ambient room temperature (factory setpoint differential = 10 degrees F; adjustable). At the end of the day, after cooking operations have ceased, the fan(s) will shut off when the duct temperature falls below the setpoint differential.

FIRE CONDITION
IN THE EVENT OF A FIRE, A SIGNAL IS SENT ACROSS THE NORMALLY OPEN DRY CONTACT OF THE FIRE SUPPRESSION SYSTEM MICROSWITCH (INTERLOCKED WITH HOOD CONTROL PANEL BY ELECTRICIAN). EXHAUST FAN(S) TO REMAIN RUNNING, SUPPLY FAN(S) TO DE-ENERGIZE, LIGHTING CIRCUIT(S) TO DE-ENERGIZE. MICROSWITCH MUST BE RESET PRIOR TO RESUMPTION OF NORMAL OPERATION.

NOTE TO ELECTRICAL CONTRACTOR

CAPTIVEAIRE HOOD CONTROL PACKAGE IS FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR AND SHOWN ON ELECTRICAL DRAWINGS FOR COORDINATION PURPOSES ONLY. ALL FIELD WIRING AND INTERLOCKS TO BE COMPLETED BY ELECTRICAL CONTRACTOR. CONTACT CAPTIVEAIRE WITH QUESTIONS REGARDING SCOPE OF WORK: (800) 988-0881

HOOD CONTROL DETAILS

REVISIONS

DESCRIPTION	DATE:
△	
△	
△	
△	

CAPTIVEAIRE
www.captiveaire.com
Maryland Office
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988 - 0881 FAX: 9192275931 EMAIL: reg32@captiveaire.com

CAVA - La Habra, CA
1360 South Beach Boulevard,Suite D
La Habra, CA, 90631

DATE: 12/7/2023
DWG.#: 6393219
DRAWN BY: AS-32
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 10

valerio
5858 Wilshire Blvd #200 T:323.954.8996
Los Angeles, CA 90036
381 Park Ave South #823 T:212.252.8996
New York, NY 10016
www.valerioinc.com info@valerioinc.com

CONSULTANT:
ACIES ENGINEERING
400 N McCarthy Blvd Suite250,
Milpitas, CA 95035
(408)522-5255

SEAL

REGISTERED PROFESSIONAL ENGINEER CHRISTIAN DALIMARTA NO.M39248 Exp. 12/31/24 MECHANICAL STATE OF CALIFORNIA

PROJECT

CAVA

CAVA
LOCATION
1360 S BEACH BLVD SUITE D
LA HABRA, CA 90631

△	DATE	DESCRIPTION
1	02/23/24	PC COMMENTS

MECHANICAL
DETAILS IX

Date Modified:
Date Created:
Scale: AS INDICATED
Project No.: 3388-23-133
Drawn By: MA
CAD File:

M6.9