

FOR QUESTIONS, CALL THE
Central CA
Region 91
PHONE: (415) 956 - 2200
EMAIL: reg91@captiveaire.com

PATENT NUMBERS
AC-PSP (UNITED STATES) - US PATENT 7963630 B2
AC-PSP WALL (CANADA) - CA PATENT 2520309
AC-PSP ISLAND (CANADA) - CA PATENT 2520330

HOOD INFORMATION - JOB#6805013

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	MIN CFM	EXHAUST PLENUM (RISERS)				TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG			
											WIDTH	LENG	HEIGHT	DIA			CFM	VEL	SP	END TO END
1	H-1	5424 ND-2-PSP-F	CAPTIVEAIRE	14' 9"	600 DEG	I	HEAVY	225	3319	2655		4'	18'	3319	1878	-1.112'	2987	430 SS WHERE EXPOSED	ALONE	FRONT
2	H-2	5424 ND-2-PSP-F	CAPTIVEAIRE	14' 9"	600 DEG	I	HEAVY	225	3319	2655		4'	18'	3319	1878	-1.112'	2987	430 SS WHERE EXPOSED	ALONE	BACK

HOOD INFORMATION

HOOD NO	TAG	TYPE	FILTER(S)			EFFICIENCY @ 7 MICRONS	QTY	LIGHT(S)			UTILITY CABINET(S)			FIRE SYSTEM PIPING	HOOD HANGING WEIGHT		
			QTY	HEIGHT	LENGTH			TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE			ELECTRICAL MODEL #	SWITCHES QUANTITY
1	H-1	CAPTRATE SOLID FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0/4.0	DCV-2111	1 LIGHT 1 FAN	YES	1178 LBS
2	H-2	CAPTRATE SOLID FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0/4.0	DCV-2111	1 LIGHT 1 FAN	YES	1122 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	H-1	FIELD WRAPPER 16.00" HIGH FRONT, LEFT, RIGHT. BACKSPASH 80.00" HIGH X 189.00" LONG 430 SS VERTICAL. STRUCTURAL FRONT PANEL.
2	H-2	FIELD WRAPPER 16.00" HIGH FRONT, LEFT, RIGHT. BACKSPASH 80.00" HIGH X 189.00" LONG 430 SS VERTICAL. STRUCTURAL FRONT PANEL.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISERS			
							WIDTH	LENG	DIA	CFM
1	H-1	Front	189'	18'	6'	MJA	18"	24"	746	0.244"
							12"	24"	746	0.244"
							12"	24"	746	0.244"
							12"	24"	746	0.244"
2	H-2	Front	189'	18'	6'	MJA	18"	24"	745	0.243"
							12"	24"	745	0.243"
							12"	24"	745	0.243"
							12"	24"	745	0.243"

CLEARANCE TO COMBUSTIBLES

HOODS #	SURFACE	■ CLEARANCE
1	TOP	18"
	FRONT	0"
	BACK	18"
	LEFT	0"
2	TOP	18"
	FRONT	0"
	BACK	18"
	LEFT	18"

- 18" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

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 MANUFACTURERS INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURERS 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

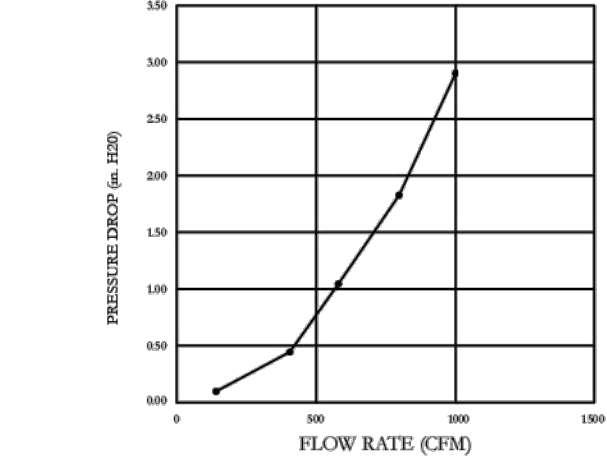
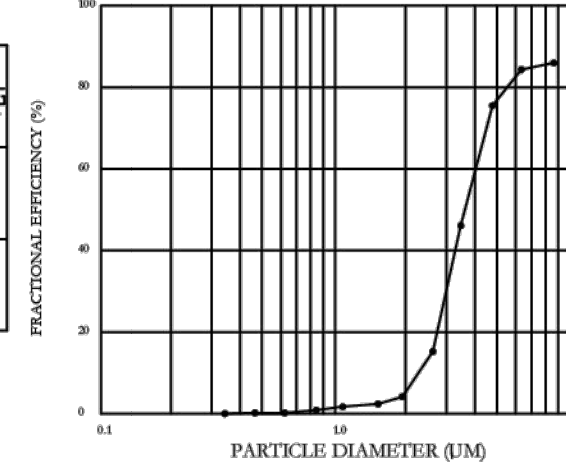
HVAC DISTRIBUTION NOTE
HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT
____' - ____"
HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

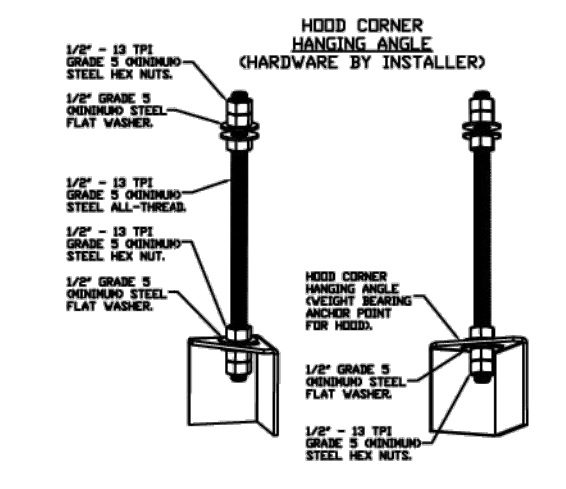
CUSTOMER APPROVAL TO MANUFACTURE:
APPROVED AS NOTED
APPROVED WITH NO EXCEPTION TAKEN
REVISE AND RESUBMIT
SIGNATURE _____ DATE _____
YOUR TITLE _____

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER

THE CAPTRATE GREASE-STOP SOLID 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 CHANNELS.
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 95% 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 SOLID WAS TESTED TO ASTM STANDARD ASTM F2619-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.
EFFICIENCY VS. PARTICLE DIAMETER
PRESSURE DROP VS. FLOW RATE

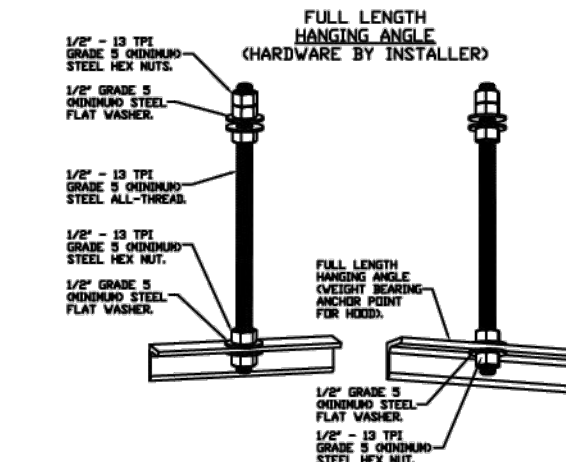


CAPTIVEAIRE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFA #96.
NSF STANDARD #2
UL STANDARD #1046.
INT. MECH. CODE (M.C).
ULC-S649.



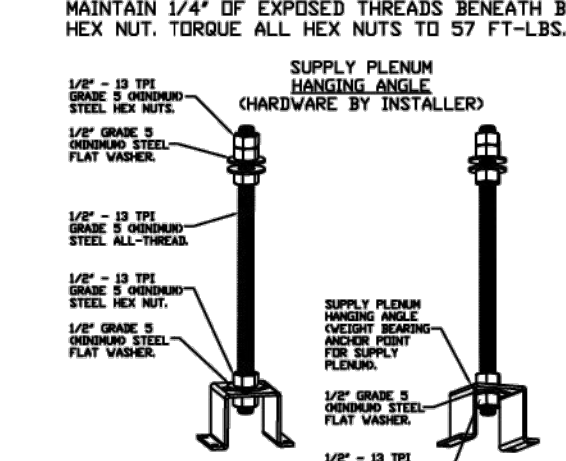
ASSEMBLY INSTRUCTIONS

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



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REVISIONS

NO.	DESCRIPTION	DATE
1		
2		
3		
4		

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Chavez Supermarket - Newark, CA
5453 Thornton Avenue,
Newark, CA, 94560

DATE: 5/20/2024
DWG.#: 6805013
DRAWN BY: T.Thai
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 1

FOR QUESTIONS, CALL THE
CAPTIVEAIRE SYSTEMS
CENTRAL CALIFORNIA OFFICE
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EMAIL: REG91@CAPTIVEAIRE.COM

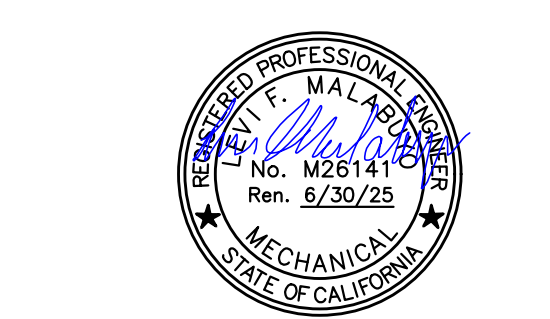
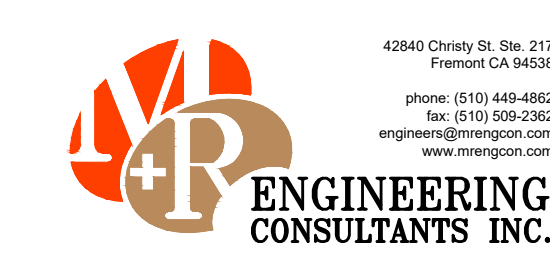
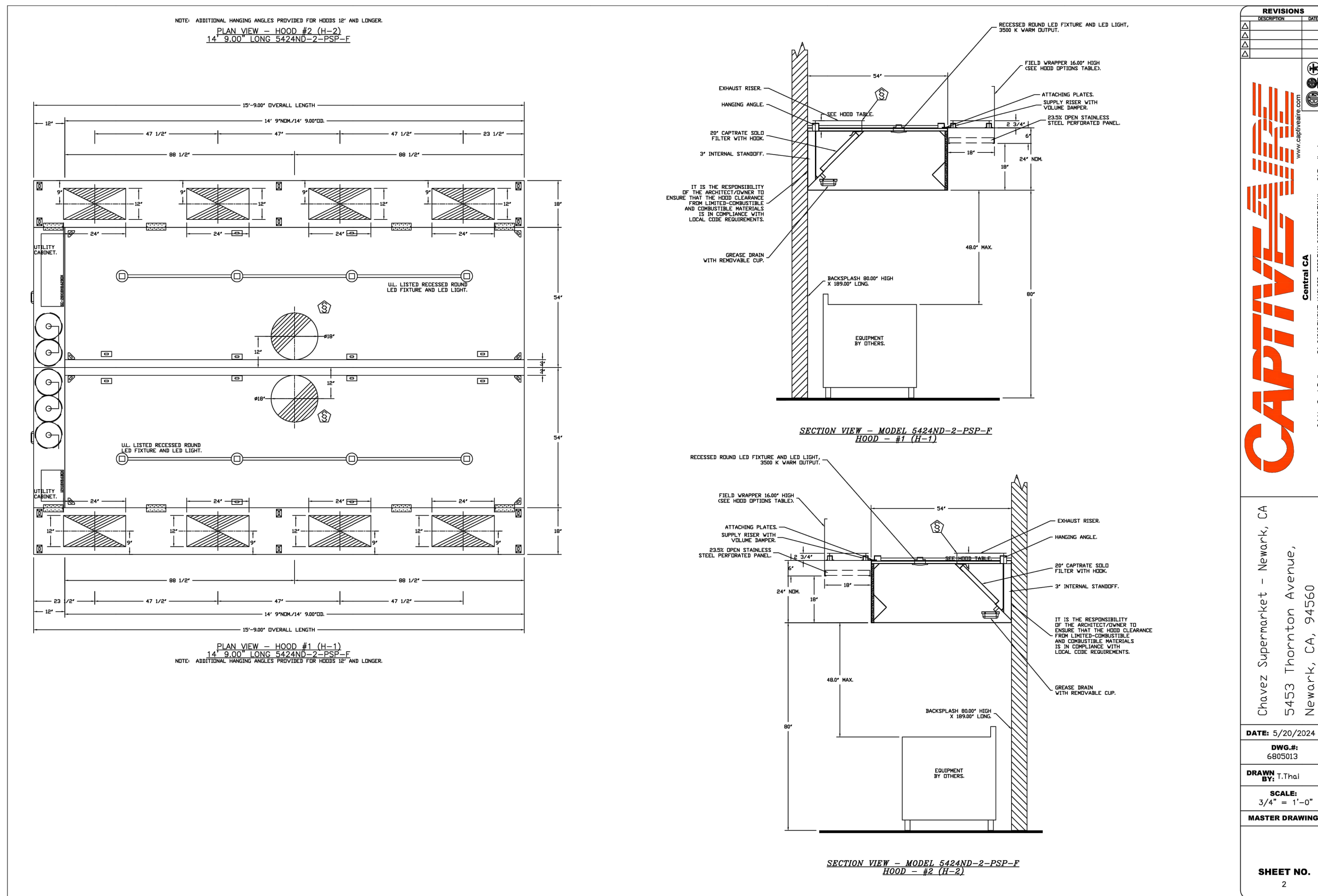
CAPTIVEAIRE HOODS ARE
BUILT IN COMPLIANCE WITH

NFA #96
UL 710 & UL 710 STANDARDS
E.T.L. LISTED 30484-001

CAPTIVEAIRE KLEEN-GARD FILTERS
ARE BUILT IN COMPLIANCE WITH

NFA #96
NSF STANDARD #2
UL STANDARD #1046
INT. MECH. CODE (M.C)

REV	DATE	DESCRIPTION
1	10.27.24	AHJ COMMENTS



REV	DATE	DESCRIPTION
1	10.27.24	AHJ COMMENTS

MECHANICAL HOOD DETAILS

EXHAUST FAN INFORMATION - JOB#6805013

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	KEF-1	1	DJ240HFA	CAPTIVEAIRE	3319	2,000	976	DDP-PREMIUM	5.000	2.4450	3	208	15.2	754 FPM	358	19.1
2	KEF-2	1	DJ240HFA	CAPTIVEAIRE	3319	2,000	976	DDP-PREMIUM	5.000	2.4450	3	208	15.2	754 FPM	358	19.1

MUA FAN INFORMATION - JOB#6805013

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	MCA	MDCP	EVAP FLOW RATE (GAL/HR)	EVAP COOLER ENTERING DB TEMP	EVAP COOLER LEAVING DB TEMP	EVAP COOLER ENTERING WB TEMP	EVAP COOLER LEAVING WB TEMP	WEIGHT (LBS)	SONES
3	MAU-1	1	A3-24D	24MF-3-MDD	A3	3000	5974	0.750	1349	DDP-PREMIUM	7.500	4.8680	3	208	21.1	26.4A	45A	5.27	90.0°F	65.0°F	71.0°F	65.0°F	1184	21.3

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF-1	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DJ/DR240HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
2	KEF-2	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DJ/DR240HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
3	MAU-1	1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	EVAPORATIVE COOLER WIRING HARNESS
		1	2 YEAR PARTS WARRANTY

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST	SUPPLY
1	KEF-1	GREASE CUP	GRAVITY DAMPER
2	KEF-2	GRAVITY DAMPER	GRAVITY DAMPER
3	MAU-1	GRAVITY DAMPER	MOTORIZED DAMPER

CURB ASSEMBLIES

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-1	48 LBS	CURB	31.500"W X 31.500"L X 20.000"H VENTED HINGED.
2	# 2	KEF-2	48 LBS	CURB	31.500"W X 31.500"L X 20.000"H VENTED HINGED.
3	# 3	MAU-1	68 LBS	CURB	35.000"W X 35.000"L X 20.000"H
	# 3			RAIL	4.000"W X 4.000"L X 36.000"H
	# 3			RAIL	4.000"W X 4.000"L X 36.000"H

FAN SOUND DATA

FAN UNIT NO	TAG	MOTOR	SOUND DATA				OCTAVE BAND SOUND DATA							
			LWA	SONES @ 5 FT	DBA @ 5 FT	DISTANCE (FT)	63 HZ	125 HZ	250 HZ	500 HZ	1 KHZ	2 KHZ	4 KHZ	8 KHZ
1	KEF-1	EXHAUST	82	19.0598940399802	70.5	5	77.9	87.7	87.8	77.3	72.8	70	65.6	61.3
2	KEF-2	EXHAUST	82	19.0598940399802	70.5	5	77.9	87.7	87.8	77.3	72.8	70	65.6	61.3
3	MAU-1	SUPPLY	83.6	21.296746087746	72.1	5	81.5	88.3	84.5	80.3	77.7	74.6	72.2	69.3

GREASE BOX INSTALLATION

GREASE BOX FIELD INSTALLATION

STEP 1) ATTACH GREASE BOX COVER TO THE CURB. HOLD 9" DIMENSION AS SHOWN ON PIC. 1. SCREW GREASE BOX COVER TO CURB USING (3) LONG (3/4" LG) SCREWS AS SHOWN ON PIC. 2.

STEP 2) ATTACH GREASE BOX TO GREASE BOX COVER, SLIDE AND DROP AS SHOWN ON PIC. 3.

STEP 3) INSTALL GREASE PIPE AS SHOWN ON PIC. 4.

TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL766 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (150°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

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.

DEFINITIONS:

- GREASE BOX - FAN BASE CERAMIC SEAL - DJ/DR240HFA - INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.

REVISIONS

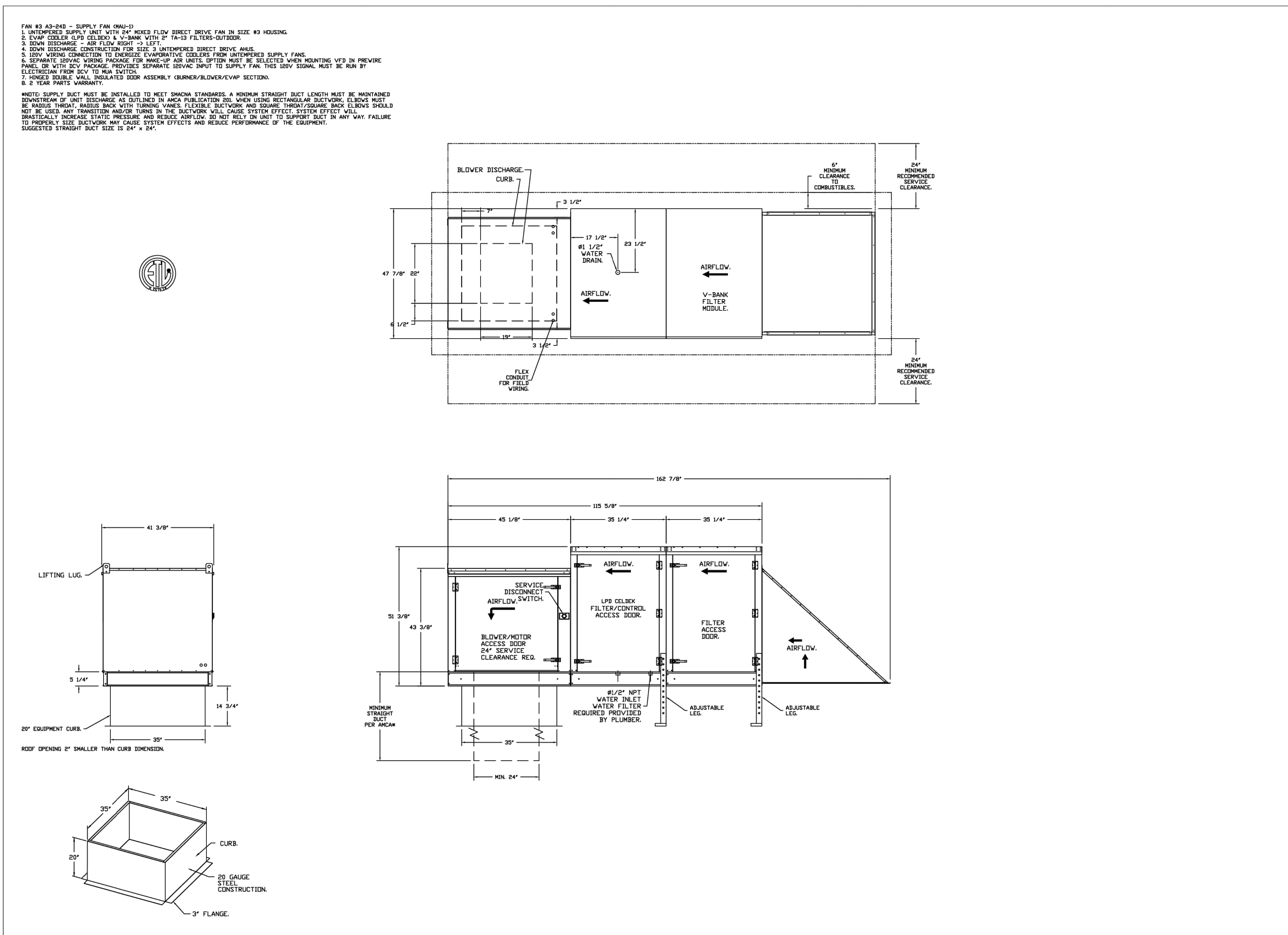
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CAPTIVE
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8 Adair Court, Burlingame, CA 94010 PHONE: (415) 359-2200 FAX: 9162727946 EMAIL: info@captivewire.com

Chavez Supermarket - Newark, CA
5453 Thornton Avenue,
Newark, CA, 94560

DATE: 5/20/2024
DWG.#: 6805013
DRAWN BY: T.Thai
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 3



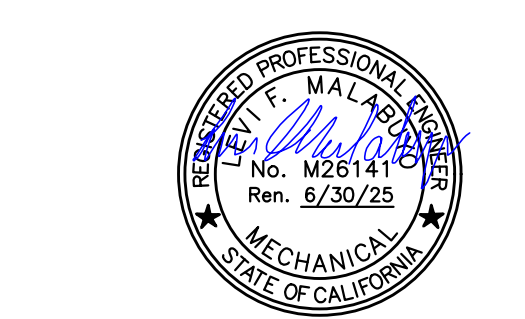
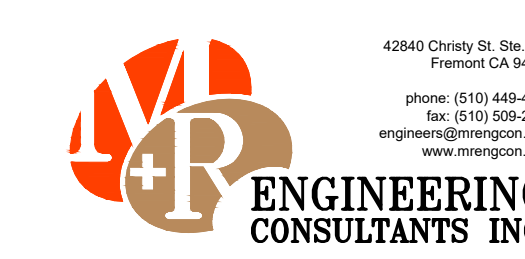
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SHEET NO. 4

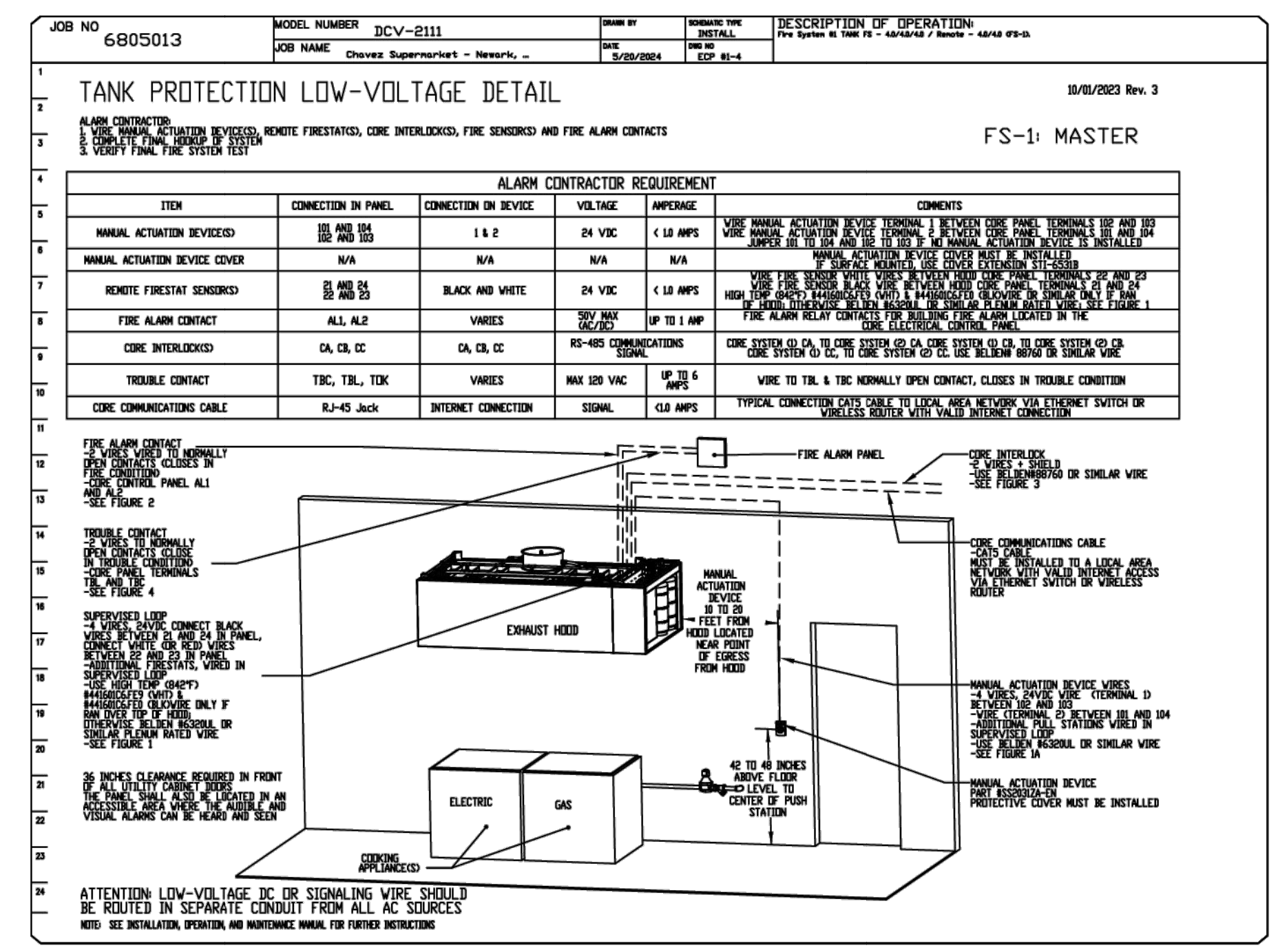
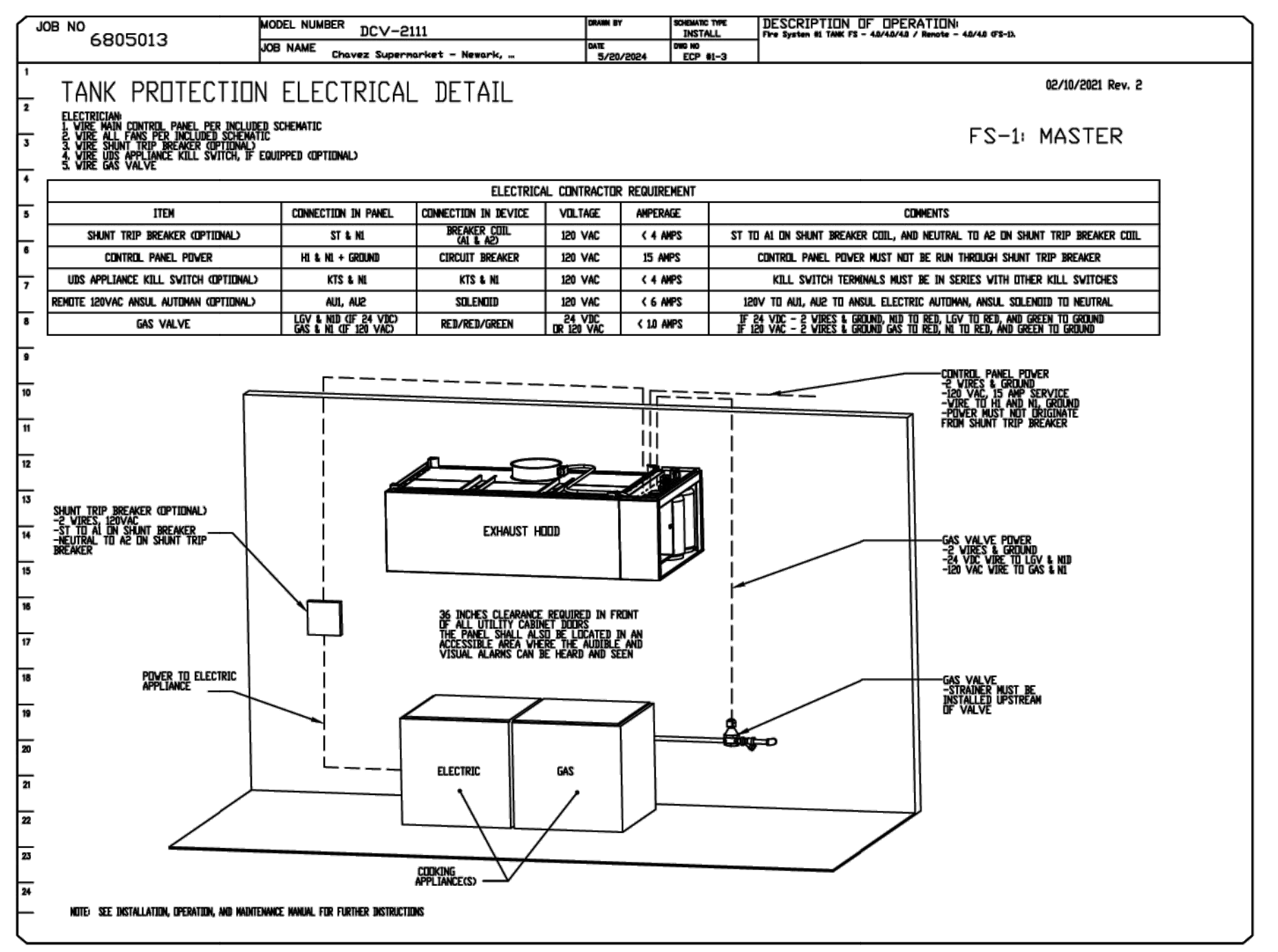
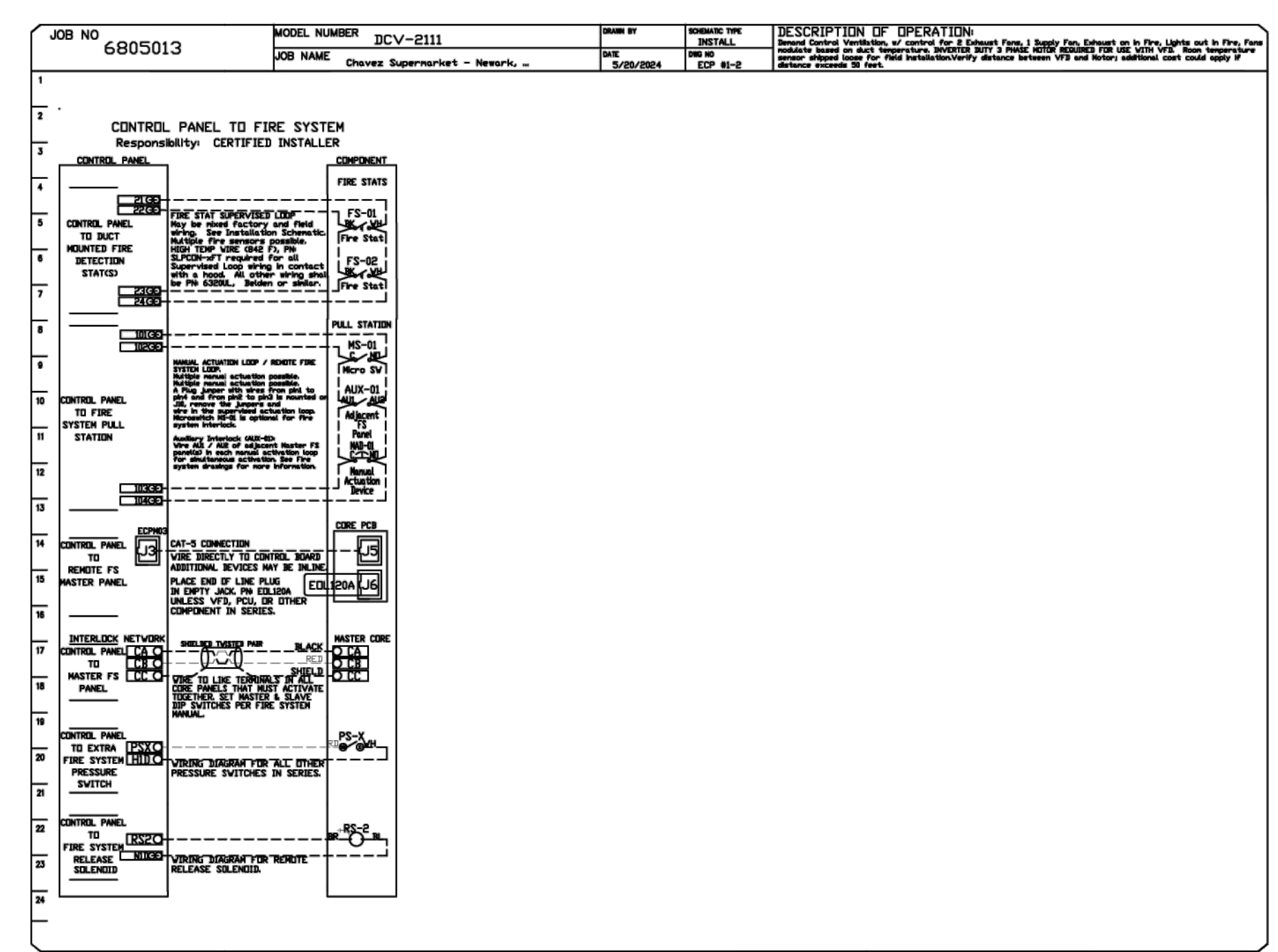
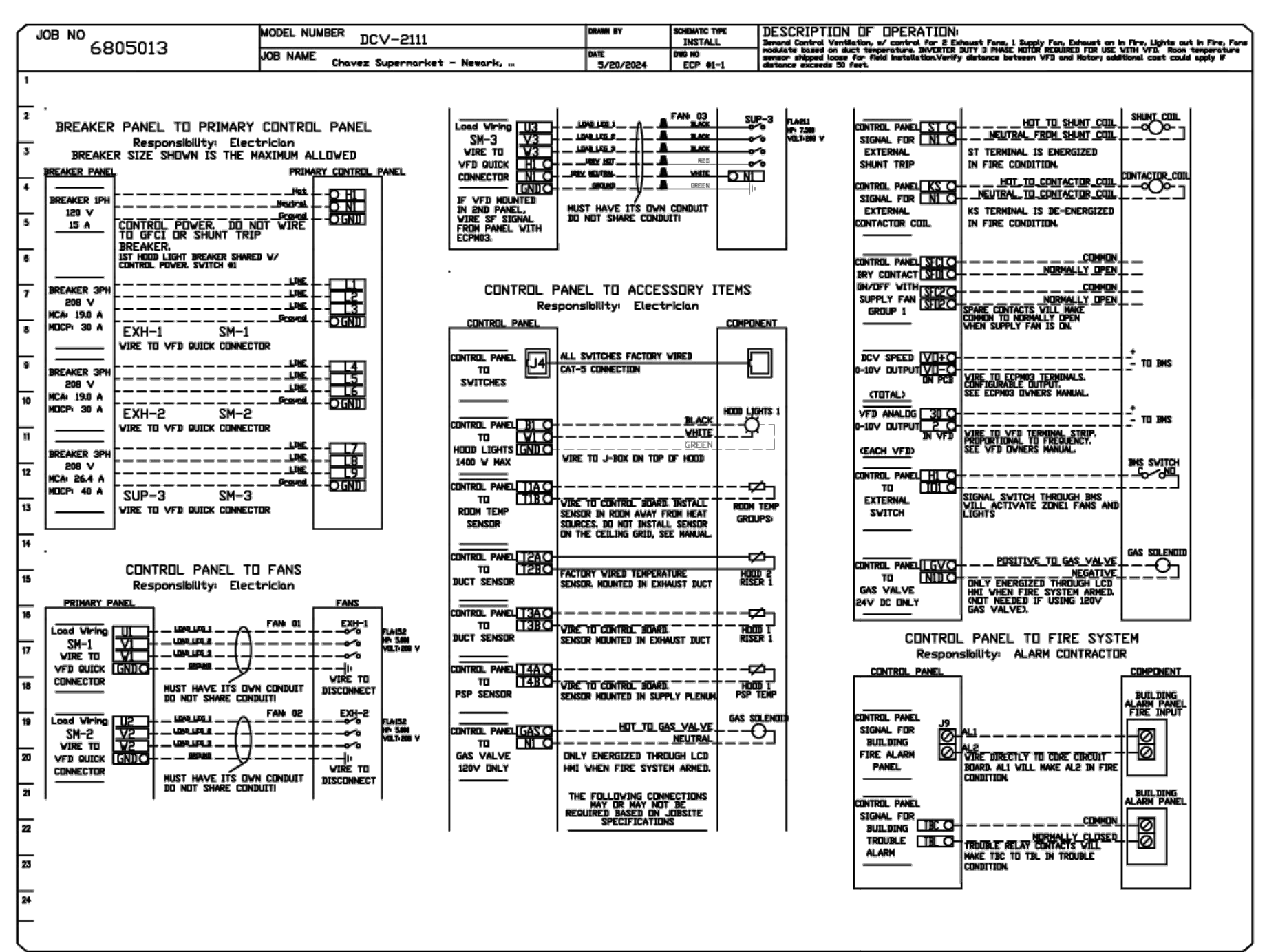


REV	DATE	DESCRIPTION
Δ	10.27.24	AHJ COMMENTS

MECHANICAL HOOD
DETAILS

ELECTRICAL PACKAGE - JOB#6805013

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLTS FLA		
1		DCV-211	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS DCV	KEF-1	EXHAUST	3	5000	208	15.0
				HOOD # 2	1 FAN		KEF-2	EXHAUST	3	5000	208	15.0
							MAU-1	SUPPLY	3	7500	208	11.1



REVISIONS

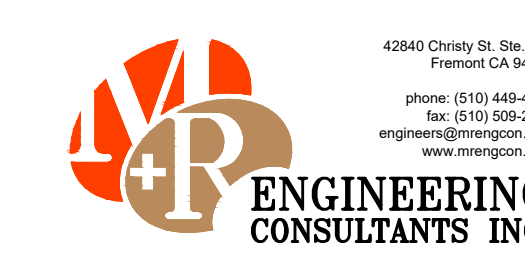
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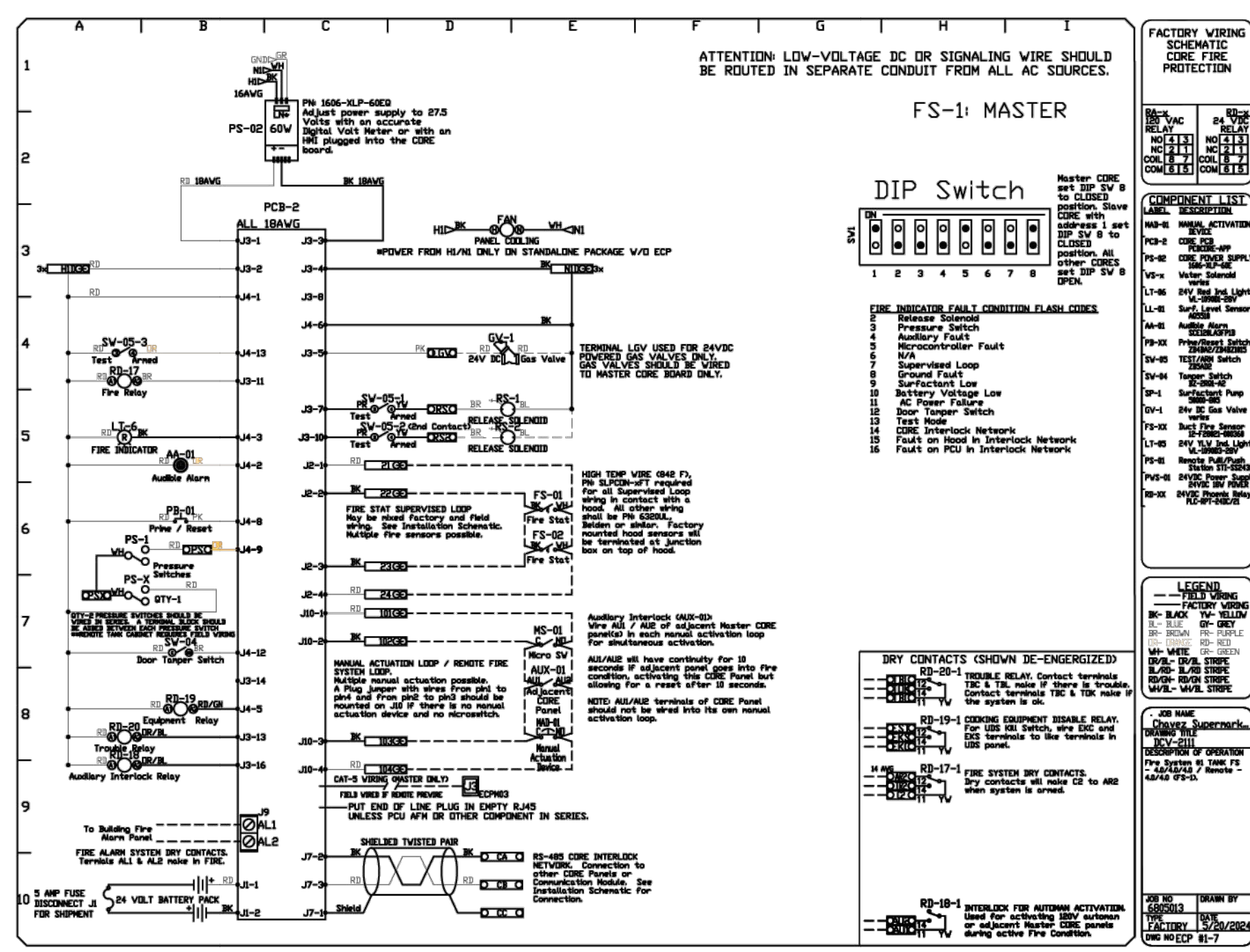
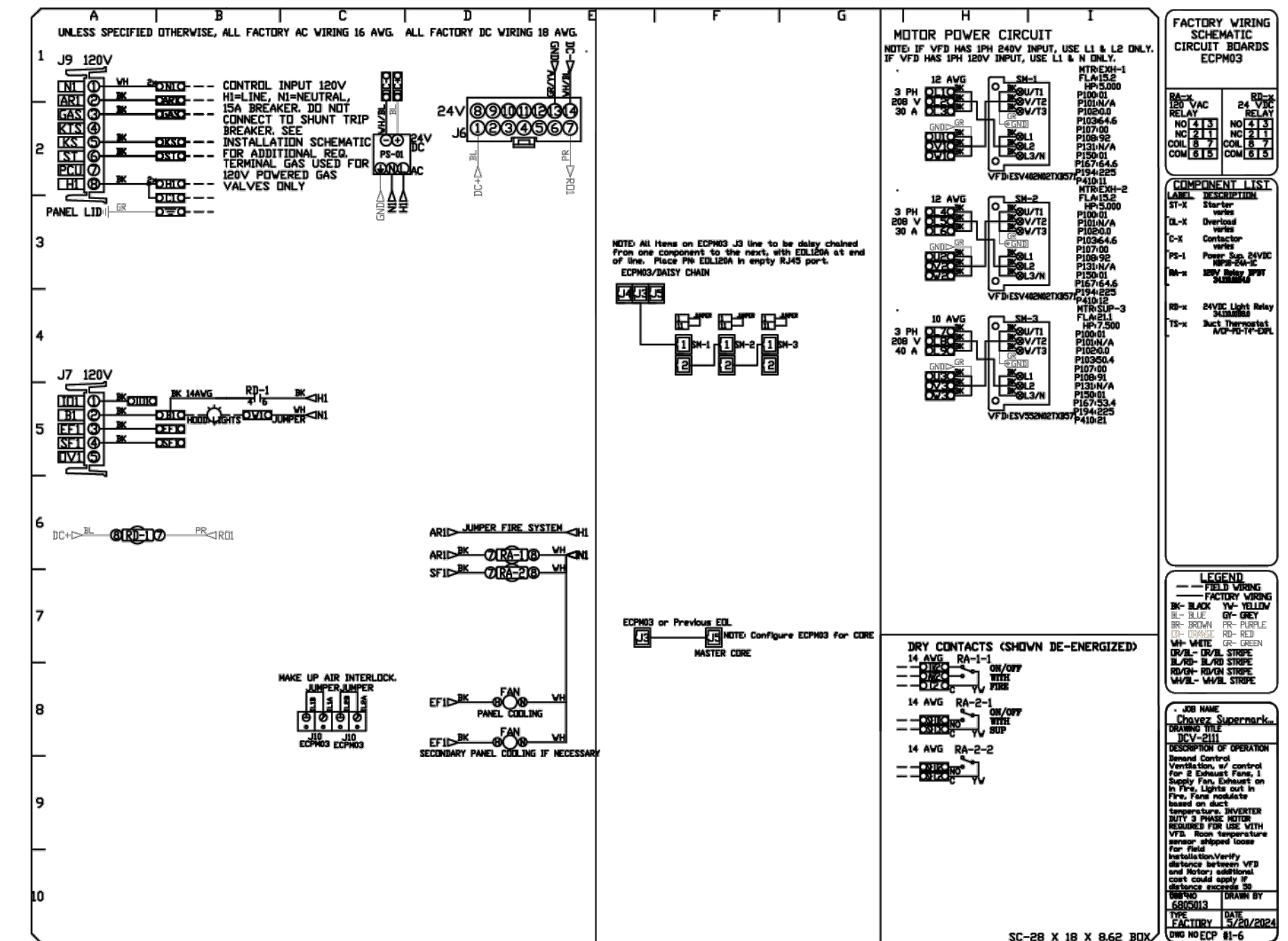
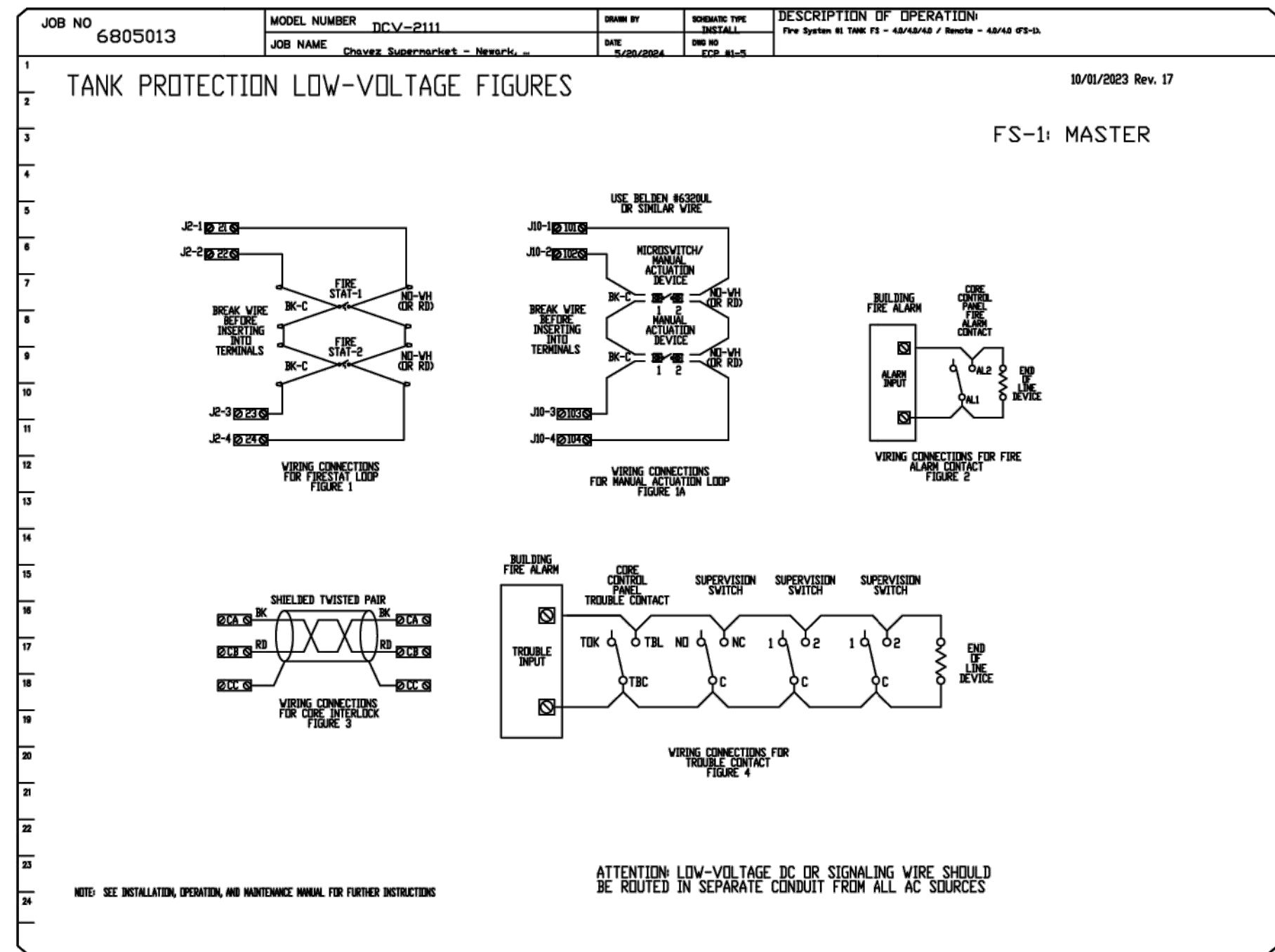
Chavez Supermarket T.I.
5453 THORNTON AVENUE
NEWARK, CA 95121

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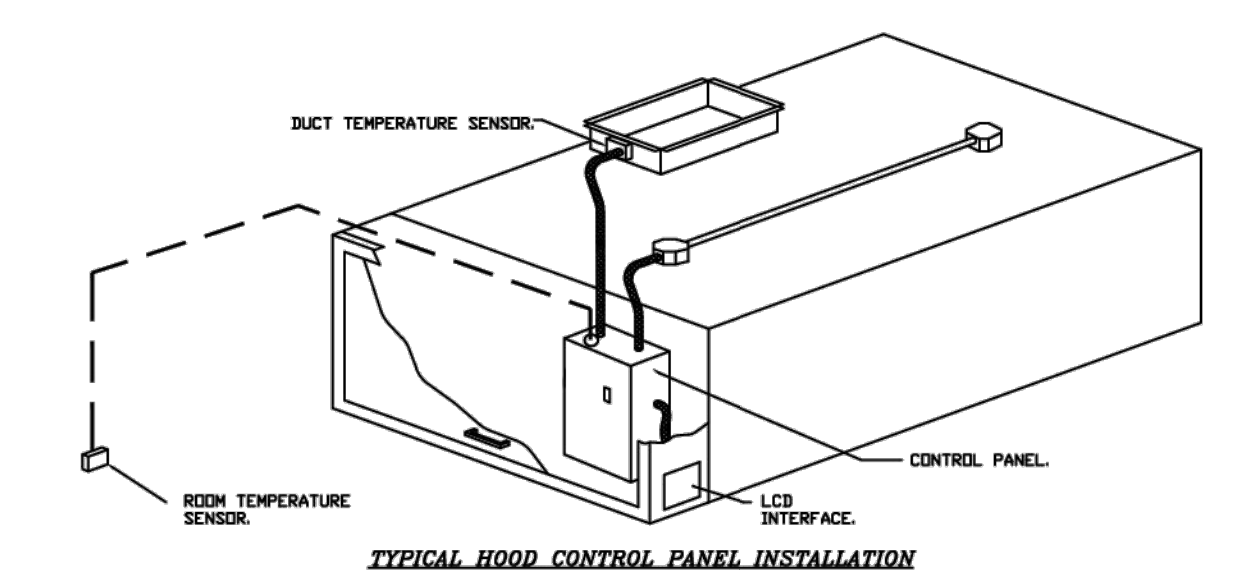
MECHANICAL HOOD DETAILS

DRAWN BY: JKS SCALE: NONE
CHECKED: HC PROJECT: A2404-AD669

DATE: OCT. 17, 2024 **M4.5**



- DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:**
- CONTROLS SHALL BE LISTED BY ETL, UL 508A AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TUNINGDOWN 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 PROBES LOCATED IN THE EXHAUST DUCT RISERS 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 TEMPERATURE 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 INPUTS 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 PROP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH OF 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 FANS, ACTIVATE THE EXHAUST FANS, 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 IMS 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:
 - ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
 - INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
 - VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
 - AN ENERGY SAVING INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDs.



- SEQUENCE OF OPERATIONS:**
THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:
- AUTOMATIC:** 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).
 - MANUAL:** THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
 - SCHEDULE:** 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 UNWANTED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
 - OTHER:** THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (CODE, IMS OR HARD-WIRED INTERLOCK).
 - FIRE:** UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO RUN. THE HOOD MAKEUP AIR WILL SHUTDOWN AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICAL. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTIVATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

REVISIONS

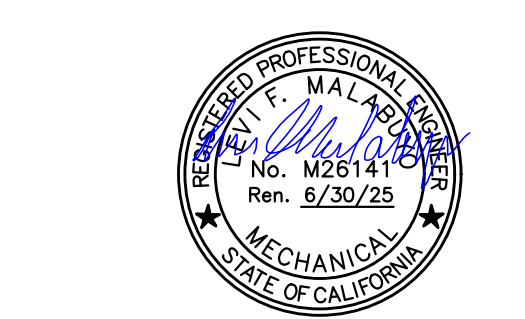
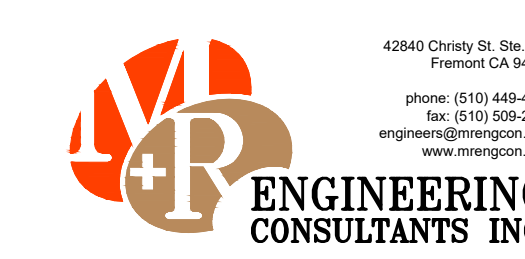
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CAPTIVE
www.captivecorp.com
Central CA
8 Adair Court, Burlingame, CA, 94010 PHONE: (415) 359-2200 FAX: 9162729442 EMAIL: nsg@captivewire.com

Chavez Supermarket - Newark, CA
5453 Thornton Avenue,
Newark, CA, 94560

DATE: 5/20/2024
DWG.#: 6805013
DRAWN BY: T.Thai
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 6



Chavez Supermarket
SUPERMARKET
T.I.
5453 THORNTON AVENUE
NEWARK, CA 95121

REV	DATE	DESCRIPTION
Δ	10.27.24	AHJ COMMENTS

Additional information including installation manual available at www.captiveaire.com.

FACTORY BUILT DOUBLE WALL GREASE DUCT MODEL DW-2R SPECIFICATION:

FURNISH DOUBLE 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 AND UL-2221 FOR VENTING AIR AND GREASE VAPORS FROM COMMERCIAL COOKING OPERATION. TESTING HAS BEEN EXTENDED TO RECOGNIZE ASTM E2336 AND AC101 DUE TO SIMILAR TESTING CRITERIA. MODELS DW-2R, 3R AND 3Z ARE USED FOR GREASE DUCT APPLICATIONS WHEN INSTALLED IN ACCORDANCE WITH THESE INSTRUCTIONS AND NFPA 96; STANDARD FOR VENTILATION CONTROL AND FIRE PROTECTION OF COMMERCIAL COOKING OPERATIONS. DOUBLE WALL GREASE DUCTS ARE LISTED FOR A CONTINUOUS INTERNAL TEMPERATURE OF 500 DEGREES F AND INTERMITTENT TEMPERATURES OF 2000 DEGREES F.

THE DUCT SECTIONS SHALL BE CONSTRUCTED OF AN INNER DUCT WALL AND AN OUTER WALL WITH INSULATION IN BETWEEN. THE INNER DUCT WALL SHALL BE CONSTRUCTED OF .036 INCH THICK, 430 TYPE STAINLESS STEEL AND BE AVAILABLE IN DIAMETERS 8" THROUGH 24". THE OUTER WALL SHALL BE CONSTRUCTED OF STAINLESS STEEL AT A MINIMUM OF .024 INCH THICKNESS. THE DUCT, BASED ON MODEL NUMBER, SHALL INCLUDE LAYERS OF SUPER WOOL 607 PLUS INSULATION BETWEEN THE INNER AND OUTER WALL. GREASE DUCT JOINTS SHALL BE HELD TOGETHER BY MEANS OF FORMED V CLAMPS AND SEALED WITH 3M FIRE BARRIER 2000+. THE DUCT WALL ASSEMBLY SHALL BE TESTED AT 3/4" OR ZERO INCH CLEARANCE, ACCORDING TO CLASSIFICATIONS.

CLASSIFICATIONS AND CLEARANCES

UL 2221: STANDARD FOR FIRE RESISTIVE GREASE DUCT ENCLOSURE ASSEMBLIES. CHAPTER 7 OF THIS STANDARD REFERENCES A TEST LABELED INTERNAL FIRE TEST. SECTION 7.1.1 REFERENCES TWO INSTALLATION CONDITIONS, CONDITION A AND CONDITION B. CONDITION A REPRESENTS ALL INSTALLATION CONDITION EXCEPT FOR INSTALLATION WITHIN NON-VENTILATED COMBUSTIBLE ENCLOSURES. CONDITION B REPRESENTS INSTALLATION WITHIN A NON-VENTILATED COMBUSTIBLE ENCLOSURE.

MODEL DW-2R IS CLASSIFIED UNDER UL2221 AS AN ALTERNATE TO 2-HR FIRE RESISTIVE SHAFT ENCLOSURES WITH A REDUCED CLEARANCE TO COMBUSTIBLES (SIZES 8" TO 16" DIAMETER). MODEL 2R IS LISTED IN ACCORDANCE WITH THE REQUIREMENTS FOR DUCT ENCLOSURE CONDITION B.

MODEL DW-2R: 3/4" CLEARANCE TO COMBUSTIBLES FROM THE SURFACE OF THE DUCT OUTER SHELL; ZERO INCH CLEARANCE FROM COMBUSTIBLES FROM THE TIP OF THE OUTER V BAND.

DOUBLE WALL GREASE DUCT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S "INSTALLATION, OPERATION AND MAINTENANCE MANUAL," ETL LISTING, STATE AND LOCAL CODES. FANS SHALL BE SUPPORTED INDEPENDENTLY FROM THE GREASE DUCT SECTIONS. PROTECT GREASE DUCT FROM TWISTING OR MOVEMENT CAUSED BY FAN TORQUE OR VIBRATION.

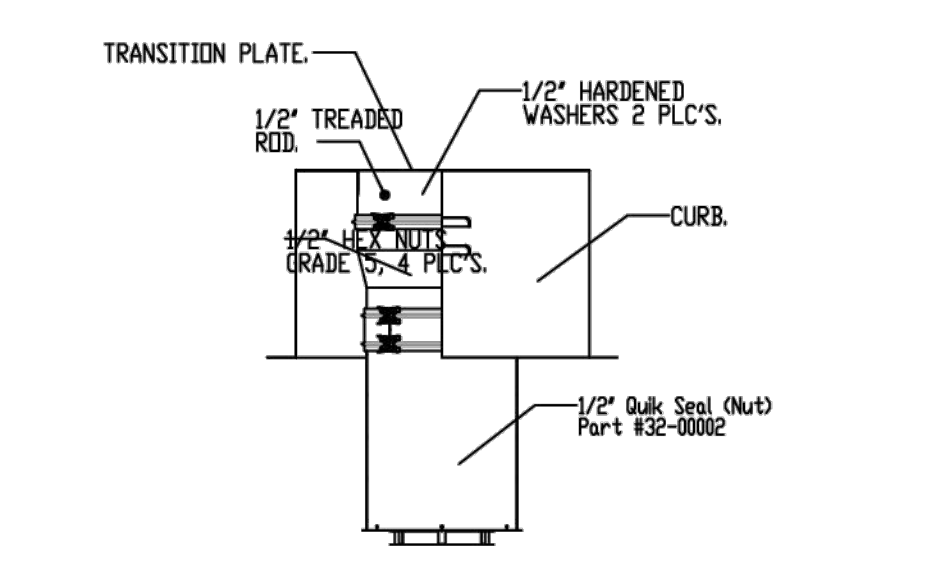
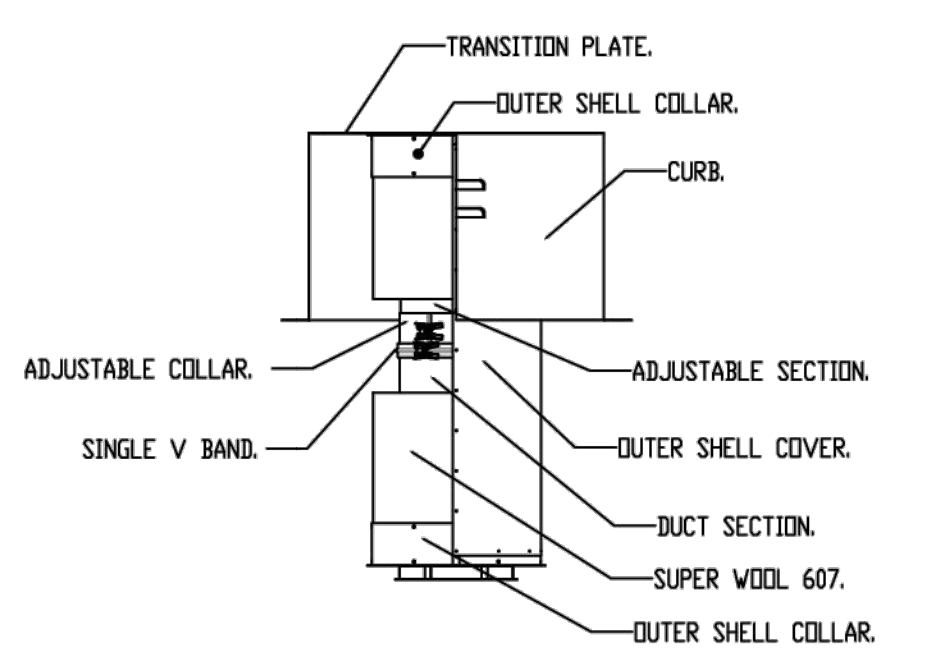
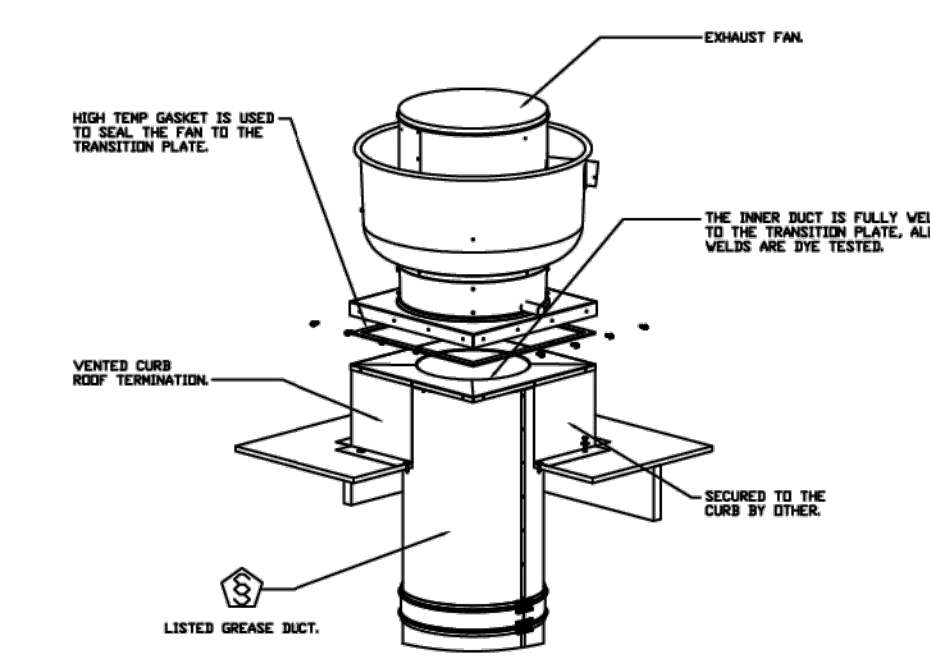
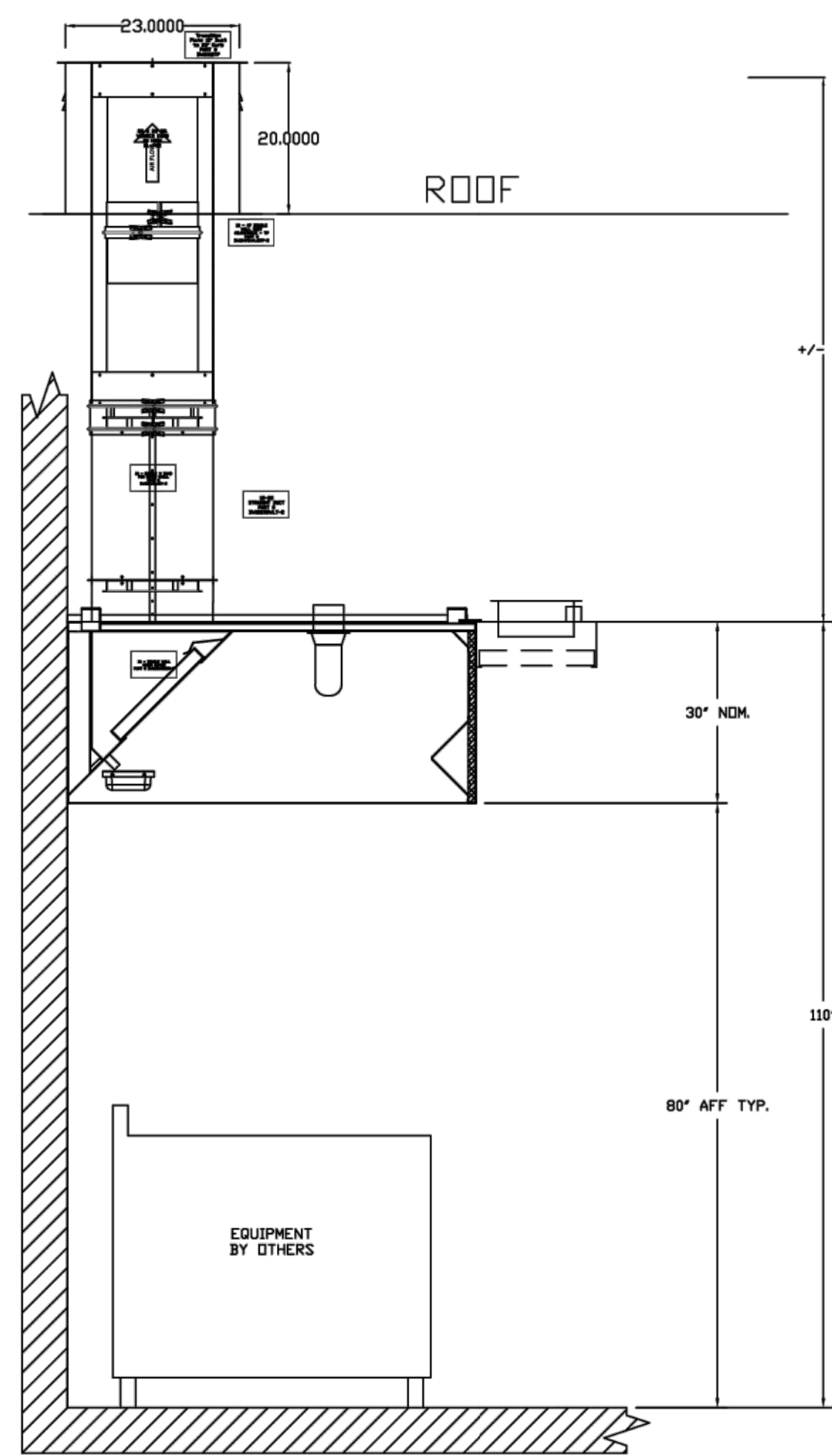
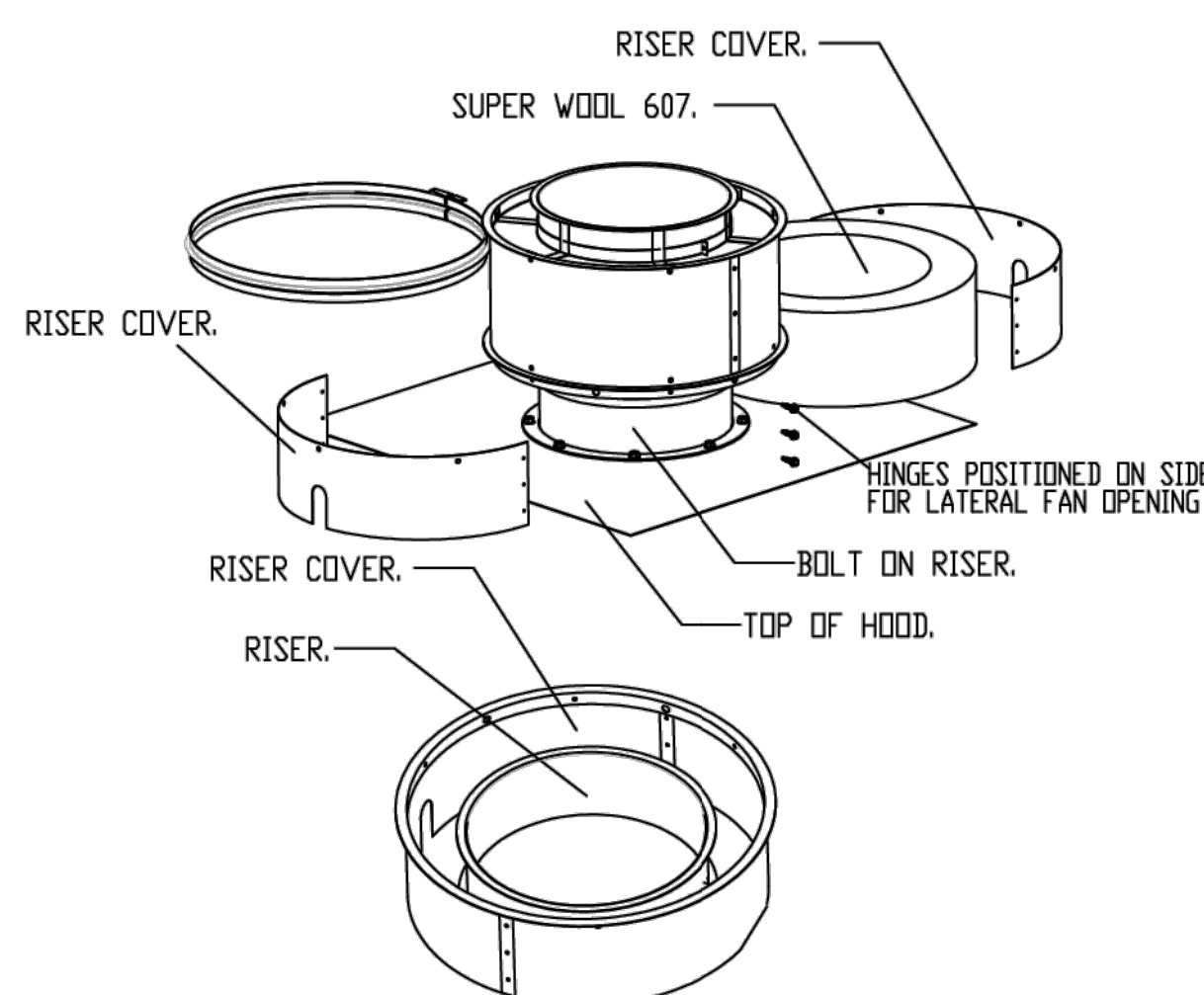
CERTIFICATIONS:

THE DW-2R SERIES HAS BEEN CERTIFIED BY ITS. THIS CERTIFICATION MARK INDICATES THAT THE PRODUCT HAS BEEN TESTED TO AND HAS MET THE MINIMUM REQUIREMENTS OF A WIDELY RECOGNIZED (CONSENSUS) U.S. AND CANADIAN PRODUCTS SAFETY STANDARD, THAT THE MANUFACTURING SITE HAS BEEN AUDITED, AND THAT THE APPLICANT HAS AGREED TO A PROGRAM OF PERIODIC FACTORY FOLLOW-UP INSPECTIONS TO VERIFY CONTINUED PERFORMANCE.

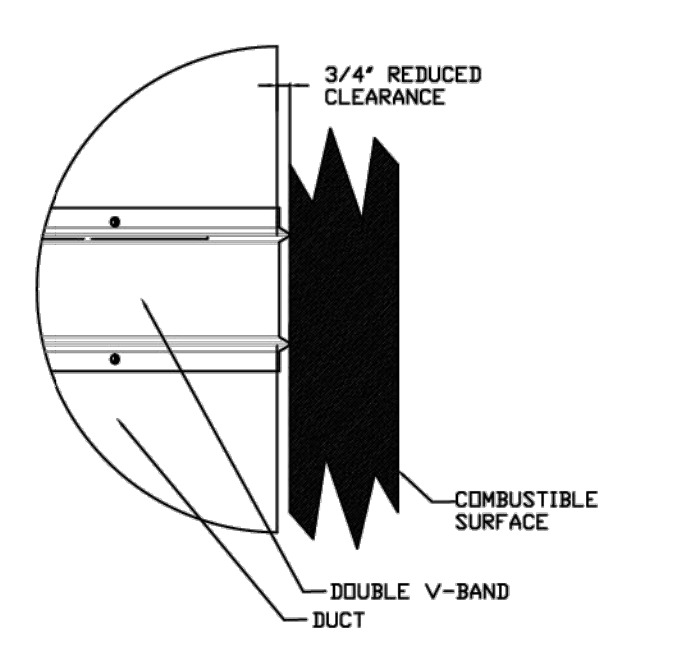
FOR QUESTIONS, CALL THE
Central CA
Thomas Thai
PHONE: (415) 956-2200
EMAIL: reg918@captiveaire.com

FOR REFERENCE ONLY
(ONCE DUCT RUN HAS BEEN
DETERMINED, ACCURATE DUCT DESIGN
WILL BE PRODUCED)

DOUBLE WALL DUCT RISER COVER



REDUCED CLEARANCE DETAIL



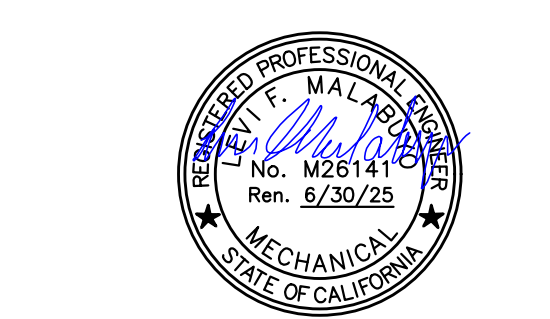
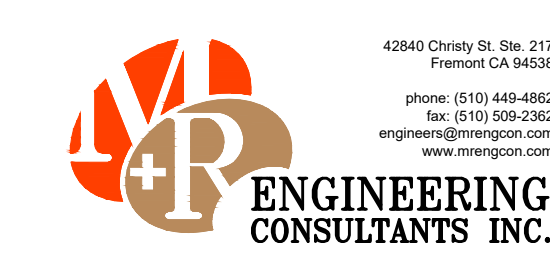
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SHEET NO. 7



REV	DATE	DESCRIPTION
Δ	10.27.24	AHJ COMMENTS

MECHANICAL HOOD DETAILS

DRAWN BY: JKS SCALE: NONE
CHECKED: HC PROJECT: A2404-AD669