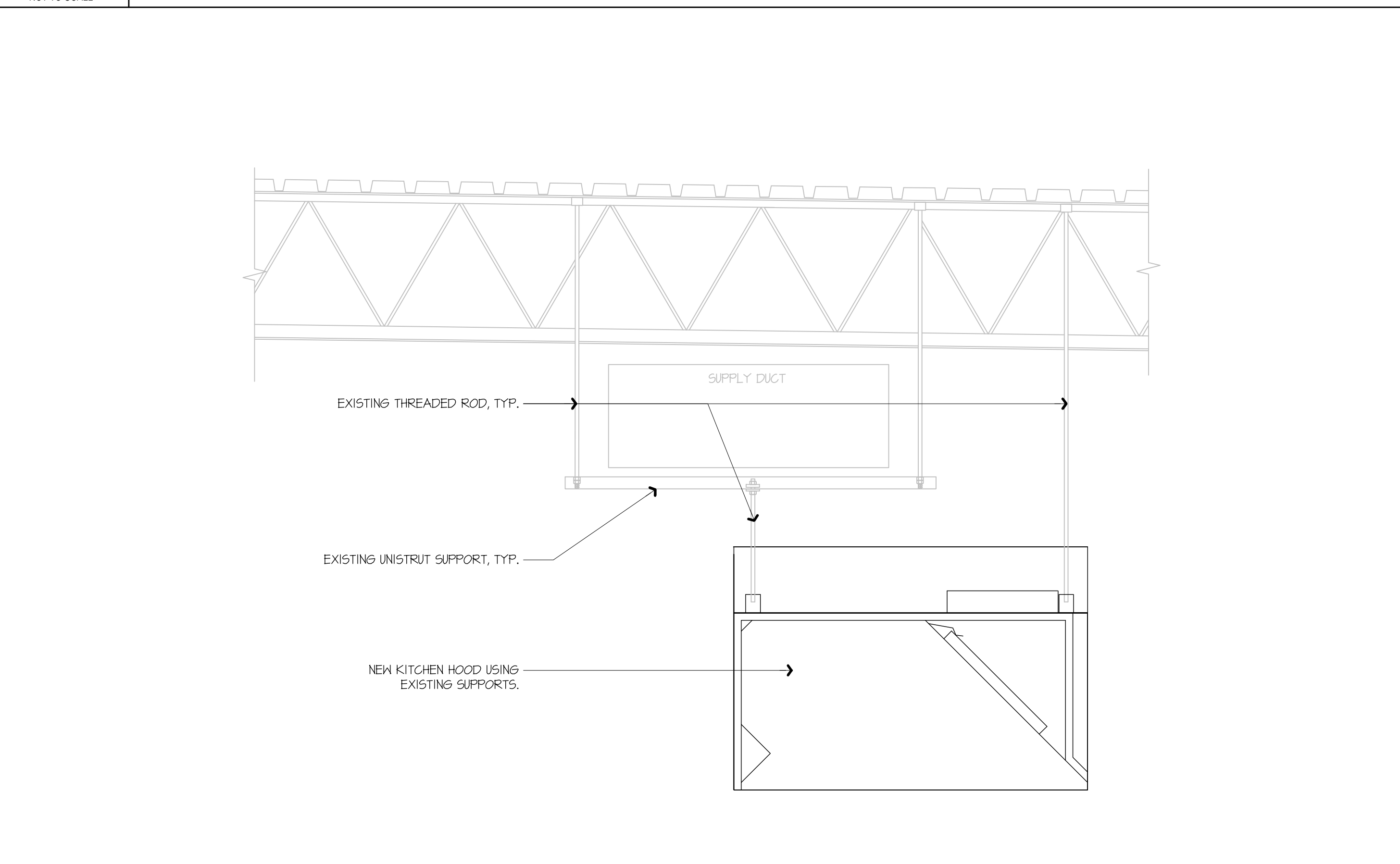


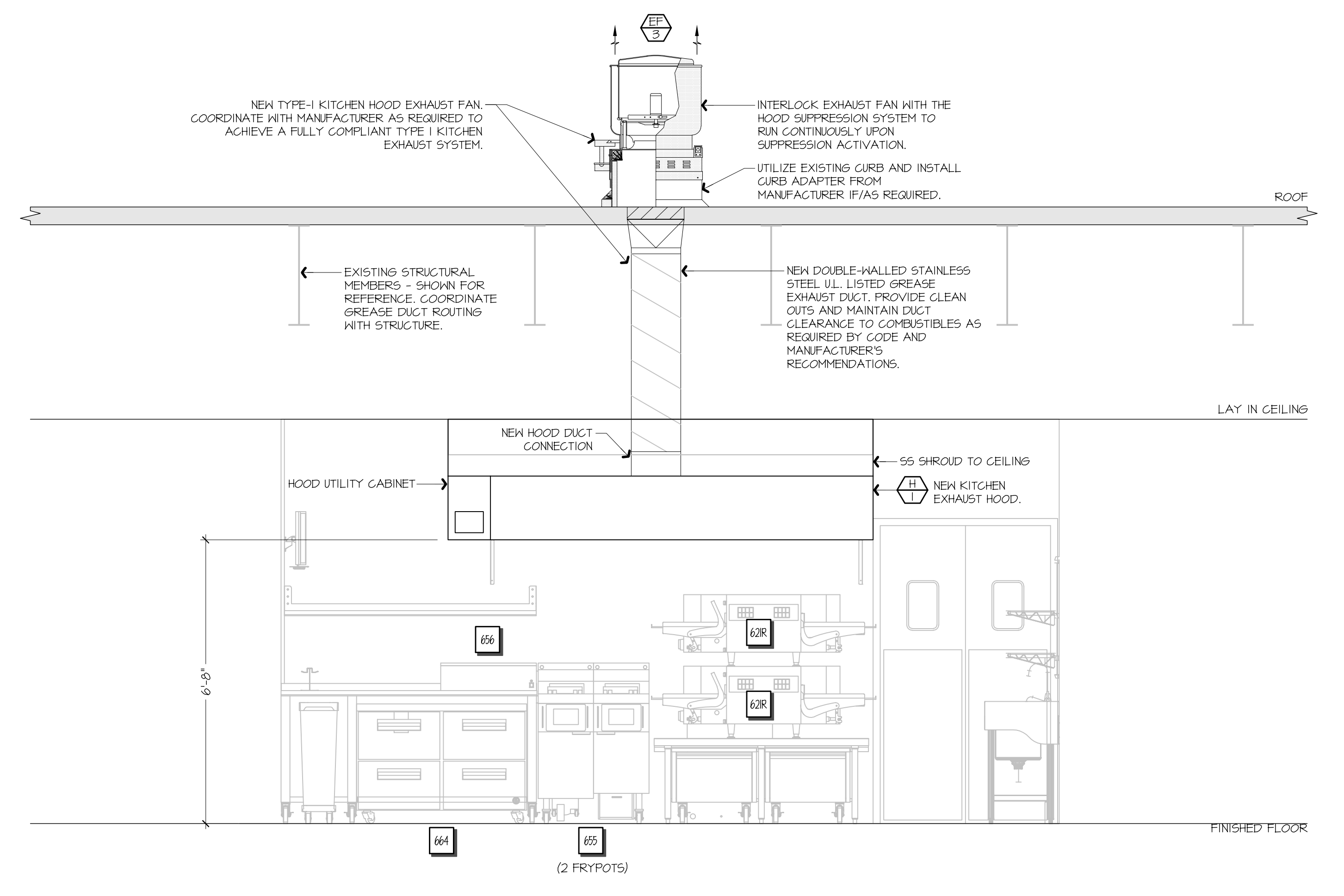
H1 KITCHEN EXHAUST HOOD SUPPORT DETAIL

NOT TO SCALE



A1 KITCHEN EXHAUST HOOD SUPPORT DETAIL (ALTERNATE EXISTING CONDITION)

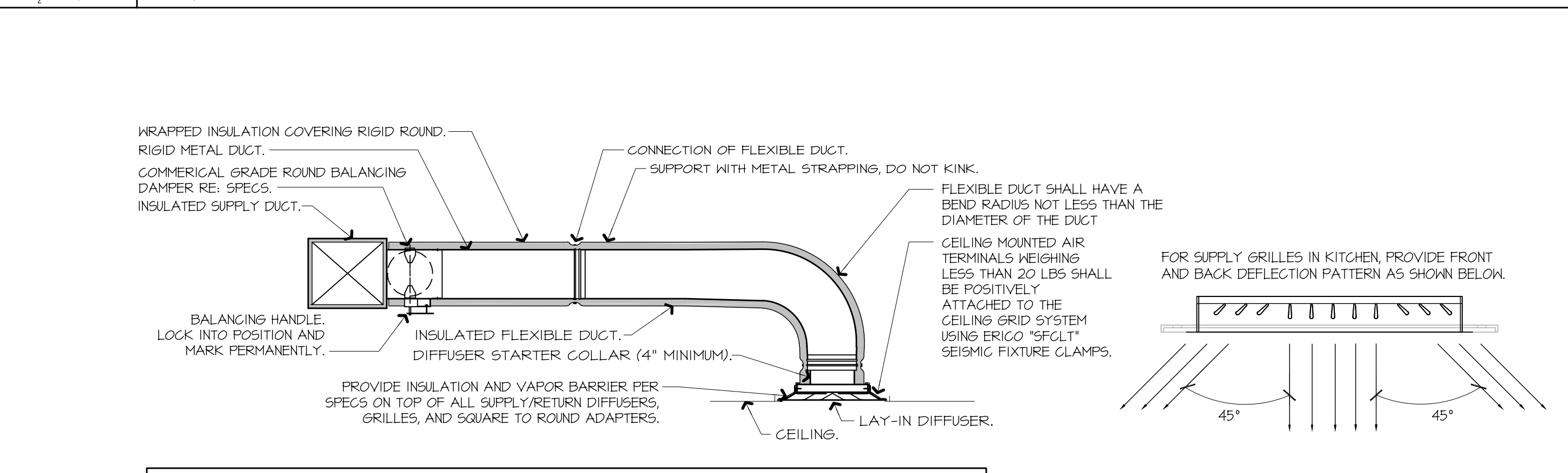
GENERAL NOTES:
 KITCHEN EXHAUST HOOD SHALL BE TYPE-I RATED FOR MEDIUM DUTY COOKING APPLIANCES THAT PRODUCE GREASE OR SMOKE AS A RESULT OF THE COOKING PROCESS. HOOD SHALL BE PROVIDED WITH AUTOMATIC FIRE SUPPRESSION SYSTEM INTERLOCKED WITH EQUIPMENT SHUTDOWN CONTROLS. HOOD SHALL BE PROVIDED WITH UL 1046 GREASE FILTERS. HOOD SHALL BE LISTED IN ACCORDANCE WITH UL10. HOOD SHALL BE LISTED AND LABELED FOR 0" CLEARANCE REQUIREMENTS TO COMBUSTIBLES.
 HEAT AND MOISTURE LOADS FOR APPLIANCES THAT DO NOT PRODUCE GREASE OR SMOKE AS A RESULT OF THE COOKING PROCESS AND ARE NOT LOCATED UNDER THE HOOD, HAVE BEEN INCORPORATED INTO THE HVAC SYSTEM CAPACITY SERVING THE KITCHEN.
 ALL OVENS NOT LOCATED UNDERNEATH A HOOD ARE UL100B LISTED FOR VENTLESS OPERATION.
SEQUENCE OF OPERATION:
 THE FOLLOWING KITCHEN EQUIPMENT SHALL BE INTERLOCKED WITH CURRENT TRANSFORMERS THAT AUTOMATICALLY ACTIVATE THE HOOD EXHAUST FAN UPON THE KITCHEN EQUIPMENT BEING ENERGIZED: [621] PIZZA OVENS, [640] COMBI OVENS, [647] STEAM DRAWER, [655] FRYER, [656] FRY HOLDING STATION.
 AS HOOD EXHAUST FAN ENERGIZES, RTUS SHALL MODULATE OUTSIDE AIR TO MAINTAIN BUILDING PRESSURIZATION. RE: M601.
 HEAT SENSORS SHALL BE PROVIDED WITHIN HOOD CANOPY FOR TEMPERATURE AND HUMIDITY MONITORING. RE: MANUFACTURER DRAWINGS.
 UPON ACTIVATION OF THE FIRE SUPPRESSION SYSTEM, ALL EQUIPMENT LOCATED UNDER THE HOOD SHALL BE SHUTDOWN VIA CONTACTORS LOCATED WITHIN THE HOOD UTILITY CABINET, AND RTU SERVING KITCHEN SPACE SHALL BE AUTOMATICALLY SHUTDOWN. RE: A13-E601.



F9 FSC REAR WALL ELEVATION - NEW

1/2" = 1'-0"

A1-M102



NOTES:
 1. PROVIDE AT FLEXIBLE DUCT CONNECTION METAL OR "PANCAKE" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX. SECURE THE INSULATION OVER THE DRAWBAND WITH AN ADDITIONAL DRAWBAND.
 2. PROVIDE BEADING ON ROUND METAL DUCT 12" OR LARGER IN DIAMETER.
 3. PROVIDE MINIMUM 4" COLLARS FOR ATTACHMENT OF THE FLEX DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
 4. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE FIBER REINFORCED FOIL BACKED TAPE FOR INSULATION OVERLAP.

A9 DIFFUSER CONNECTION DETAIL

NOT TO SCALE

Bowie Tigras Engineering Inc.
 Consulting Engineers
 Phone: 602.982.2800
 Fax: 602.982.1541
 24820 N 167th Ave, Ste 170
 Phoenix, AZ 85085
 Email: Just@BowieTigras.com
 RTE # 25367
 KDF JOB #: 24010

QuikTrip No. 1410
 400 N 75TH AVE
 PHOENIX, AZ



PROTOTYPE	FRYER ADDITION
DIVISION	PHOENIX
VERSION	TCM
DATE	06/30/25

REV	DATE	DESCRIPTION

SHEET TITLE:
 MECHANICAL SECTIONS & DETAILS

SHEET NUMBER:
M501

EXHAUST FAN INFORMATION - JOB#7284466

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	EF-3 (TYPE I)	1	DU50HFA	CAPTIVEAIRE	1350	0.750	1543	TEAO-ECM	0.500	0.310	1	208	3.8	513 FPM	74	16.6
2	EF-1 - RR FAN	1	DR33HFA	CAPTIVEAIRE	600	0.500	1304	TEAO-ECM	0.333	0.150	1	115	4.3	247 FPM	58	8.8
3	TF-1 - TRANS FAN	1	GFA 500CA	CAPTIVEAIRE	350	0.500	725	GENERAL PURPOSE	0.310	0.220	1	115	2.2		35	N/A
4	VF-1 - CO2 FAN	1	DFA-300-CA	CAPTIVEAIRE	600	0.100	1846	GENERAL PURPOSE	0.333	0.148	1	115	2.6		12	12.9

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST				SUPPLY		
		GREASE CUP	GRAVITY DAMPER	HALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	HALL MOUNT
1	EF-3 (TYPE I)	YES						
2	EF-1 - RR FAN		YES					
3	TF-1 - TRANS FAN							
4	VF-1 - CO2 FAN							

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-3 (TYPE I)	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR50HFA - SHIP LOOSE - FOR GREASE DUCTS
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCO), CCM ROTATION
		1	2 YEAR PARTS WARRANTY
2	EF-1 - RR FAN	1	1 1/2-BDD DAMPER
		1	ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCM ROTATION
		1	2 YEAR PARTS WARRANTY
		1	2 YEAR PARTS WARRANTY
3	TF-1 - TRANS FAN	1	FAN CONTROL - 3 AMP FAN MOUNTED SPEED CONTROL FOR GFA CEILING FANS
		1	2 YEAR PARTS WARRANTY
4	VF-1 - CO2 FAN	1	FAN CONTROL - 3 AMP WHITE SPEED CONTROL FOR GFA CEILING FAN
		1	2 YEAR PARTS WARRANTY

CURB ASSEMBLIES

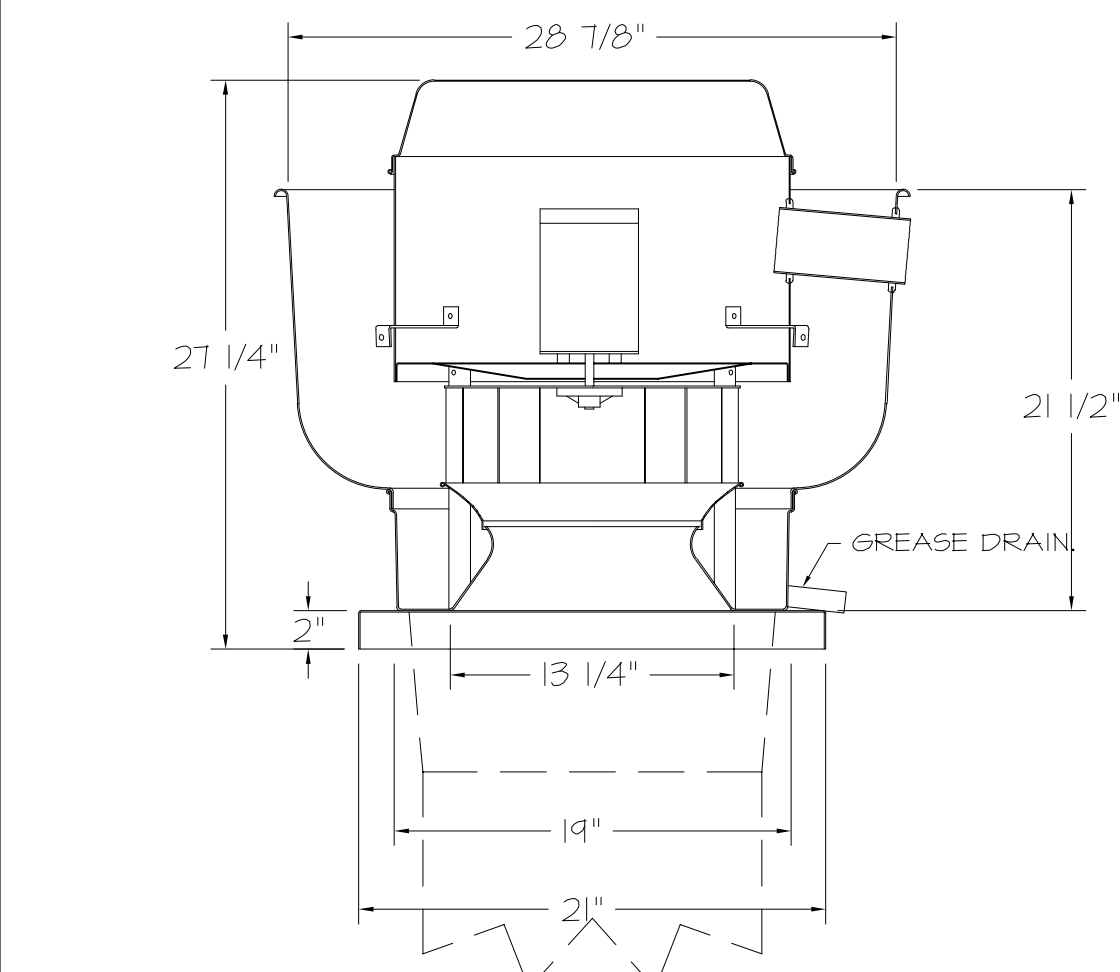
NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF-3 (TYPE I)	34 LBS	CURB	14.500"W X 14.500"L X 24.000"H VENTED HINGED.
2	# 2	EF-1 - RR FAN	31 LBS	CURB	14.500"W X 14.500"L X 20.000"H HINGED.

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	EF-3 (TYPE I)	EXHAUST	80	16.5	1126568875544	68.5	5	76.6	78	85	76.5	71.9	69.8	66	57
2	EF-1 - RR FAN	EXHAUST	70.9	8.8	2634034427191	54.4	5	68.3	75.1	73.9	67.5	64.2	62.8	55.9	44.9
4	VF-1 - CO2 FAN	EXHAUST	76.4	12.9	254533071313557	64.9	5	65.8	74	74	72.2	69.8	68.5	68	68.2

FAN #3 GFA 500CA - EXHAUST FAN (TF-1 - TRANS FAN)

FAN #1 DU50HFA - EXHAUST FAN (EF-3 (TYPE I))



FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND UL-C-5645
- 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.

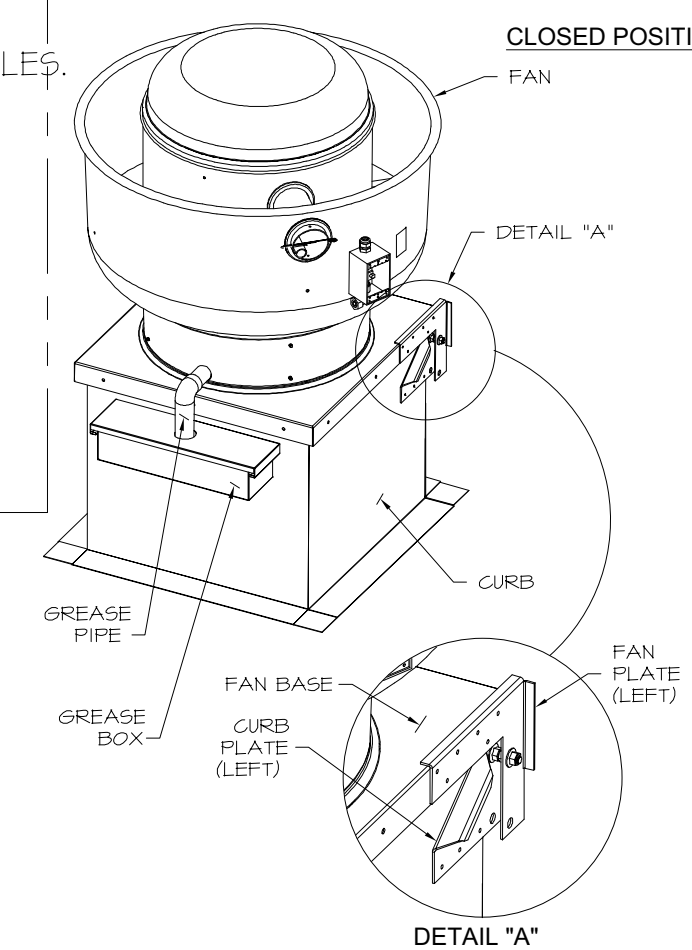
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.

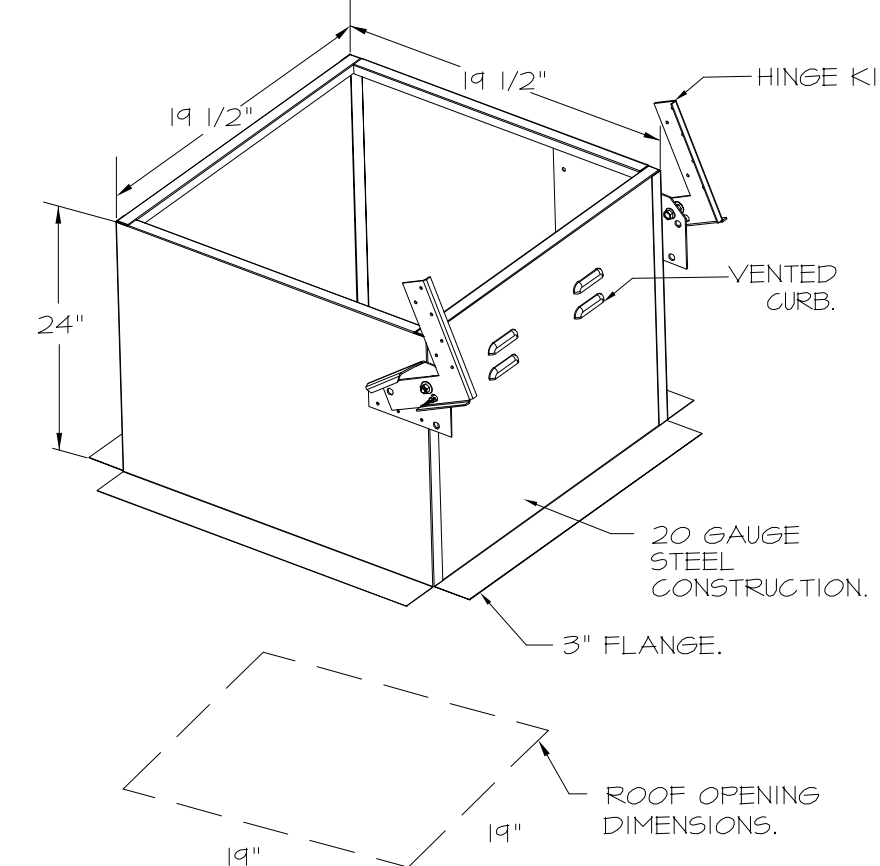
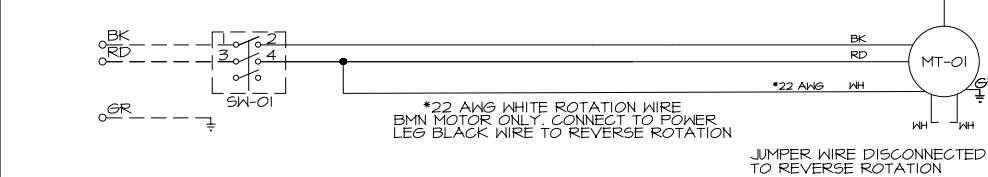
OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR50HFA
- SHIP LOOSE - FOR GREASE DUCTS.
- ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCO), CCM ROTATION
- 2 YEAR PARTS WARRANTY.

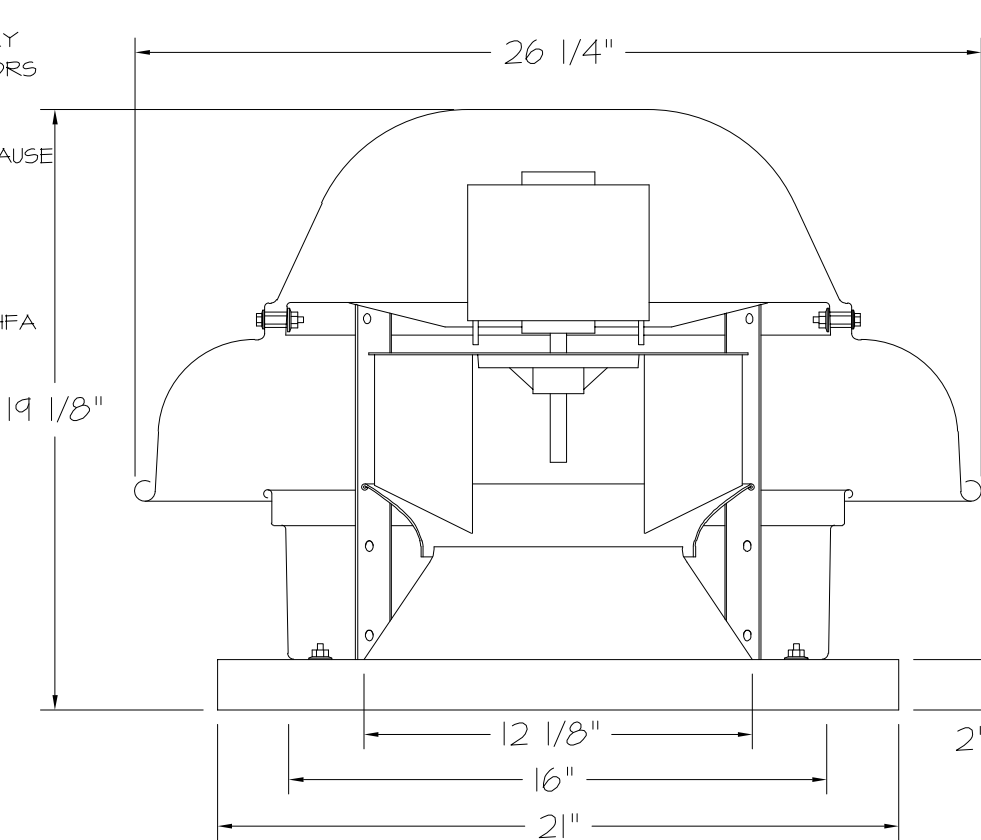
HINGE KIT INSTALLATION



J5 FROM ECPM03 TO J7



FAN #2 DR33HFA - EXHAUST FAN (EF-1 - RR FAN)



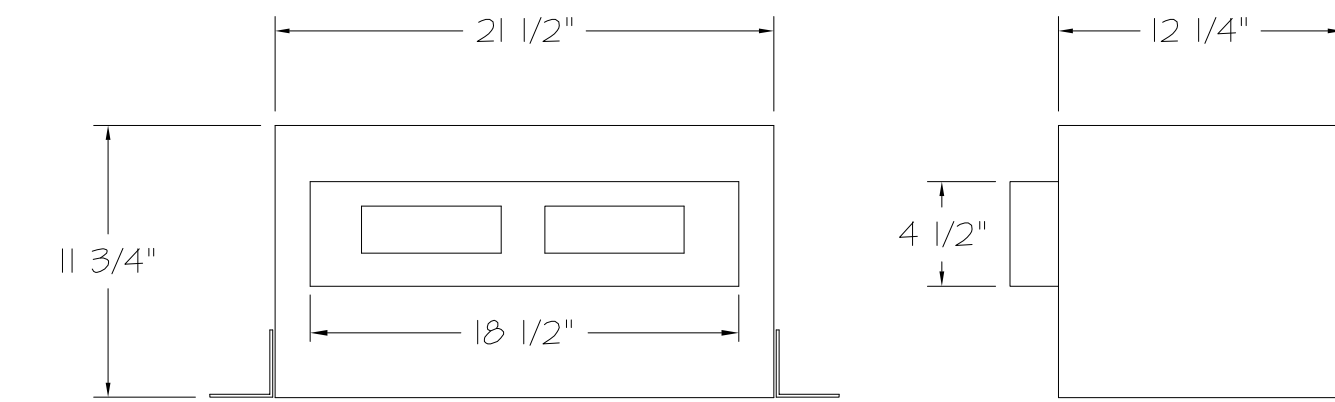
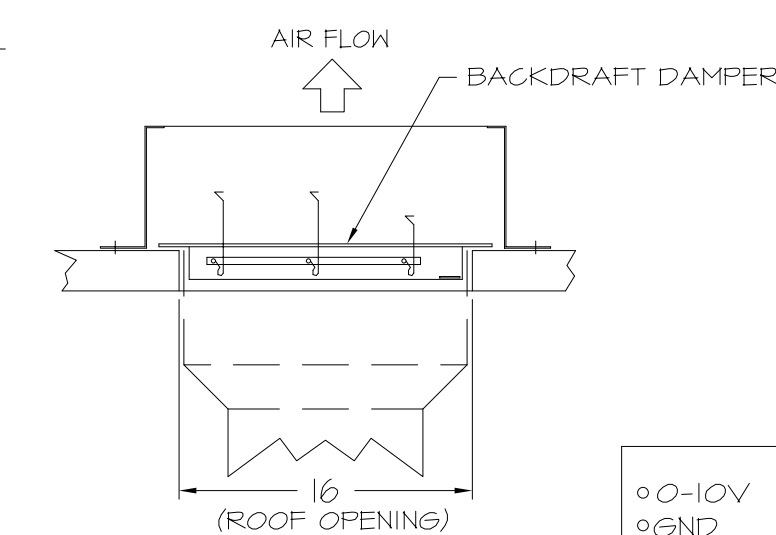
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).

OPTIONS

- 1 1/2-BDD DAMPER.
- ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCM ROTATION.
- 2 YEAR PARTS WARRANTY.

BACKDRAFT DAMPER INSTALLATION

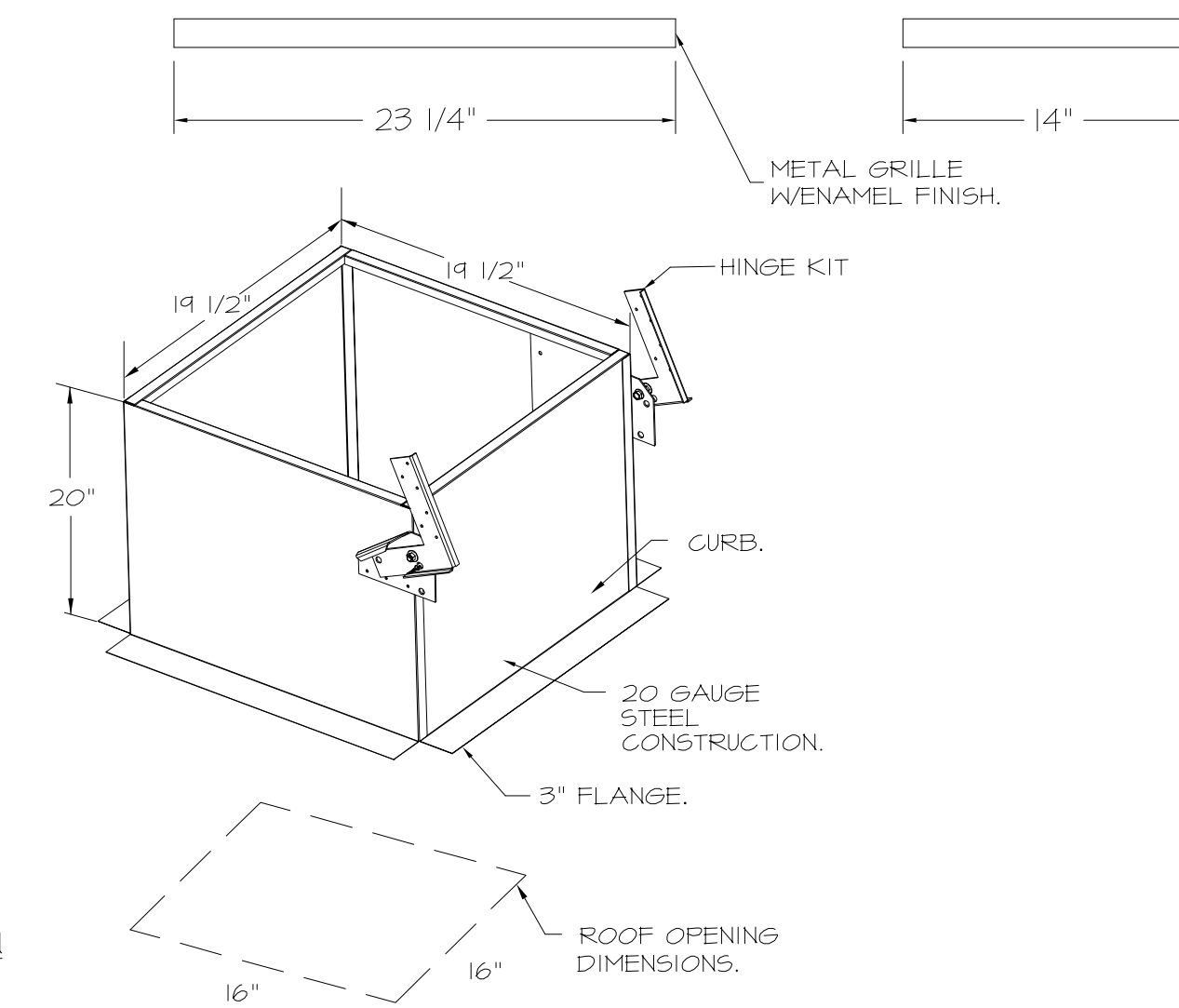


FEATURES:

- 1/2" ACOUSTIC HOUSING INSULATION.
- 20 GA. GALVANIZED STEEL HOUSING.
- PLUG TYPE DISCONNECT.
- BUILD IN AUTOMATIC BACKDRAFT DAMPER.
- AMCA SOUND 4 AIR CERTIFIED.
- UL LISTED.
- CAN BE INSTALLED IN CEILING OR WALL.
- 8 POSITION MOUNTING BRACKETS.

OPTIONS

- FAN CONTROL - 3 AMP FAN MOUNTED SPEED CONTROL FOR GFA CEILING FANS.
- 2 YEAR PARTS WARRANTY.



REVISIONS

NO	DESCRIPTION	DATE



www.captiveaire.com

12101 East 51st Street, Suite 101A, Tulsa, OK 74146 PHONE: (918) 258-0291 FAX: 9182275947 EMAIL: req80@captiveaire.com

QuikTrip No. 1410

400 N 75TH AVE PHOENIX, AZ

QT - 63 New Store Pkg Going Forward (DW) (450F) Various Locations, Tulsa, OK, 74136

DATE: 4/29/2025

DWG.#: 7284466

DRAWN BY: RJH-80

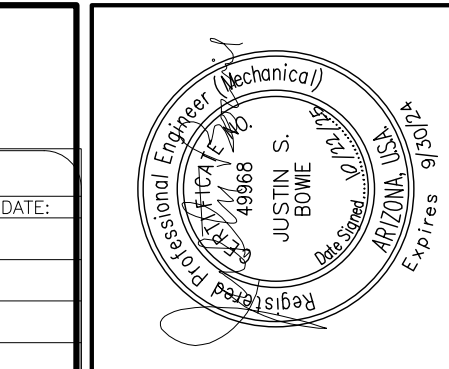
SCALE: 3/4" = 1'-0"

MASTER DRAWING

REV	DATE	DESCRIPTION

SHEET TITLE: MECHANICAL HOOD DETAILS

SHEET NUMBER: M511



Bowie Tigras Engineering Inc.
Consulting Engineers
Phone: 602.982.9900
Fax: 602.982.1541
4820 N 16TH AVE STE 170
PHOENIX, AZ 85016
BTE # 25367

KDF JOB #: 24010



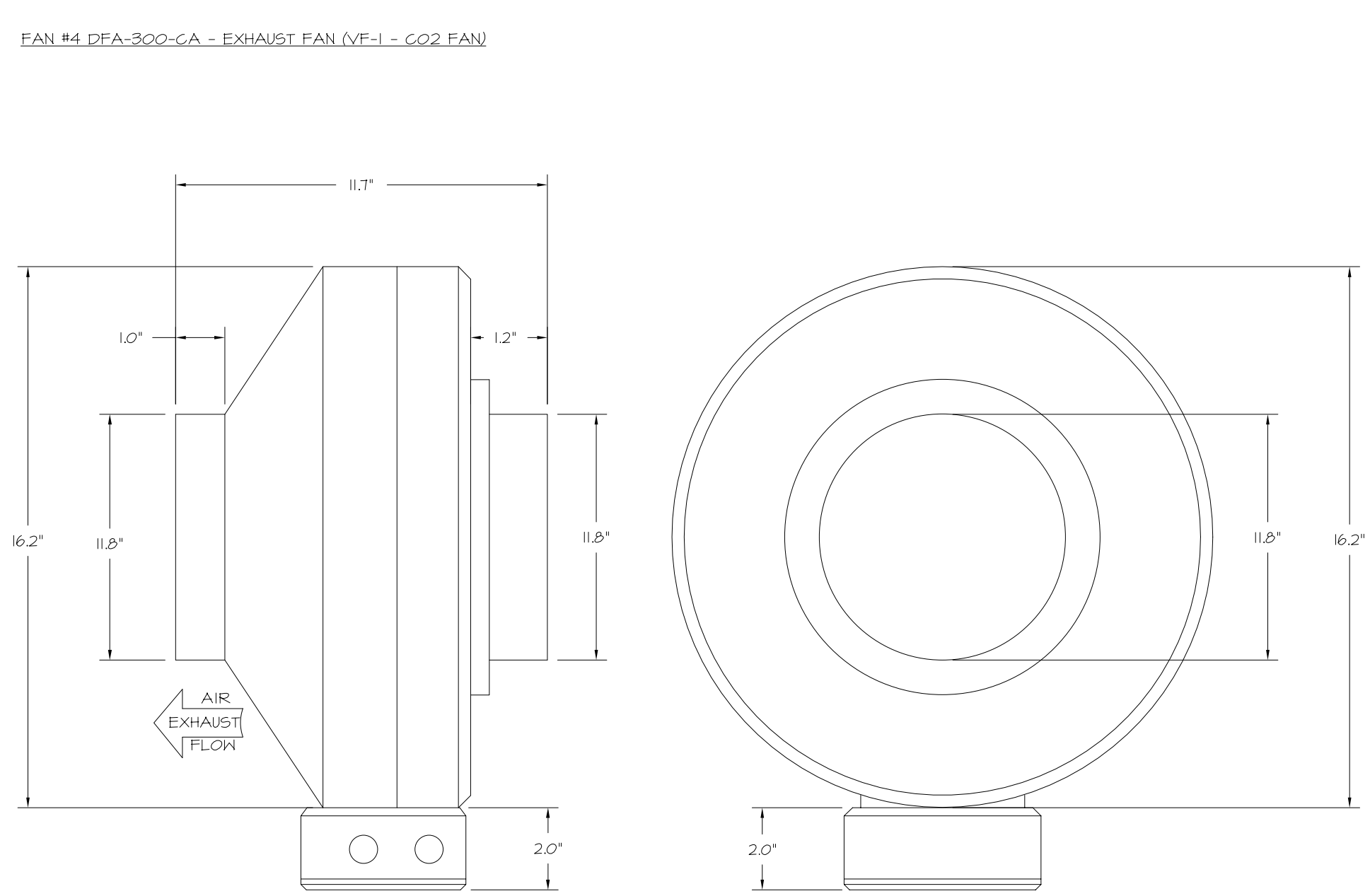
PROTOTYPE	RYER ADDITION

DIVISION	PHOENIX

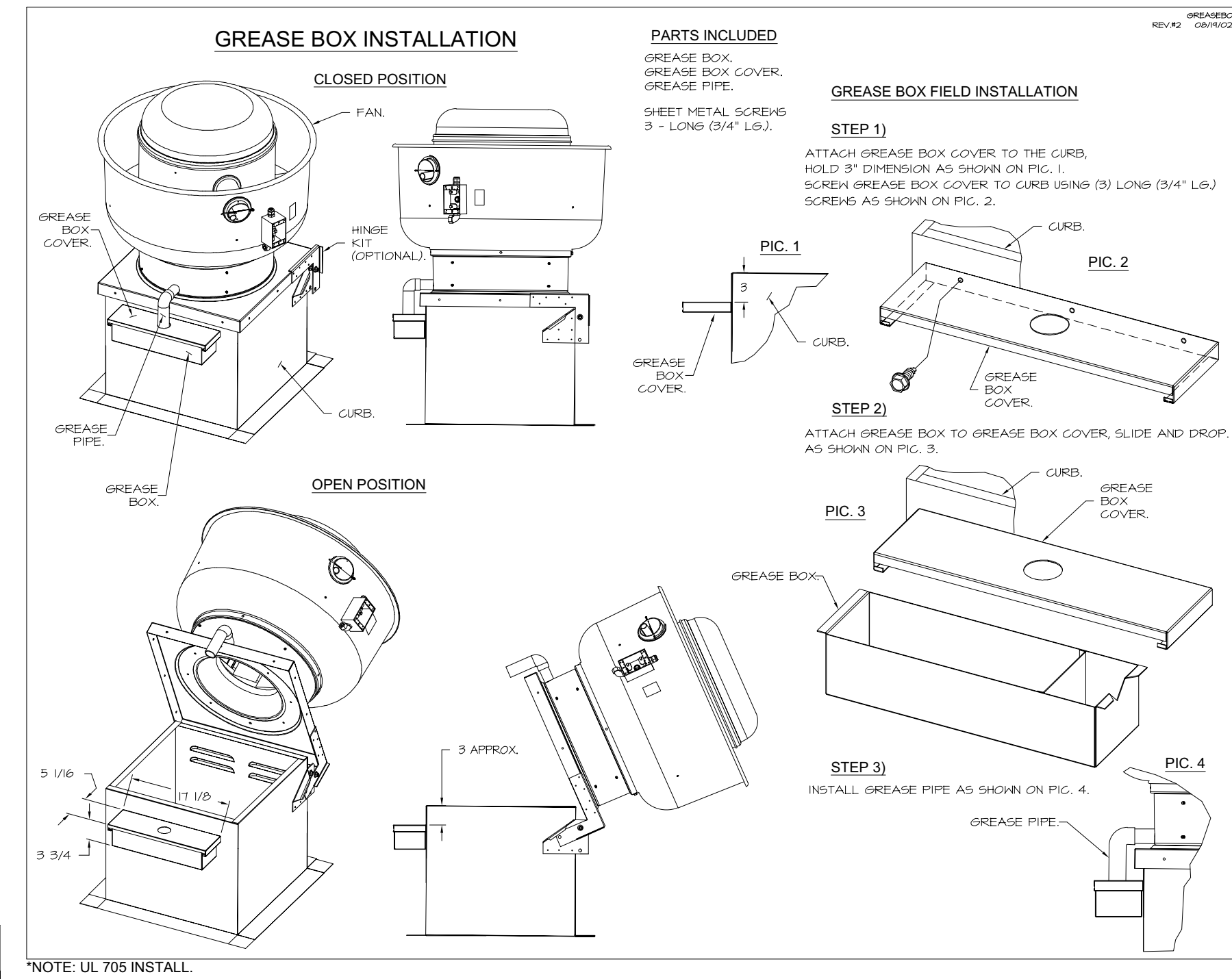
VERSION	TCM

DATE	06/30/25

ORIGINAL ISSUE DATE: 04/29/25

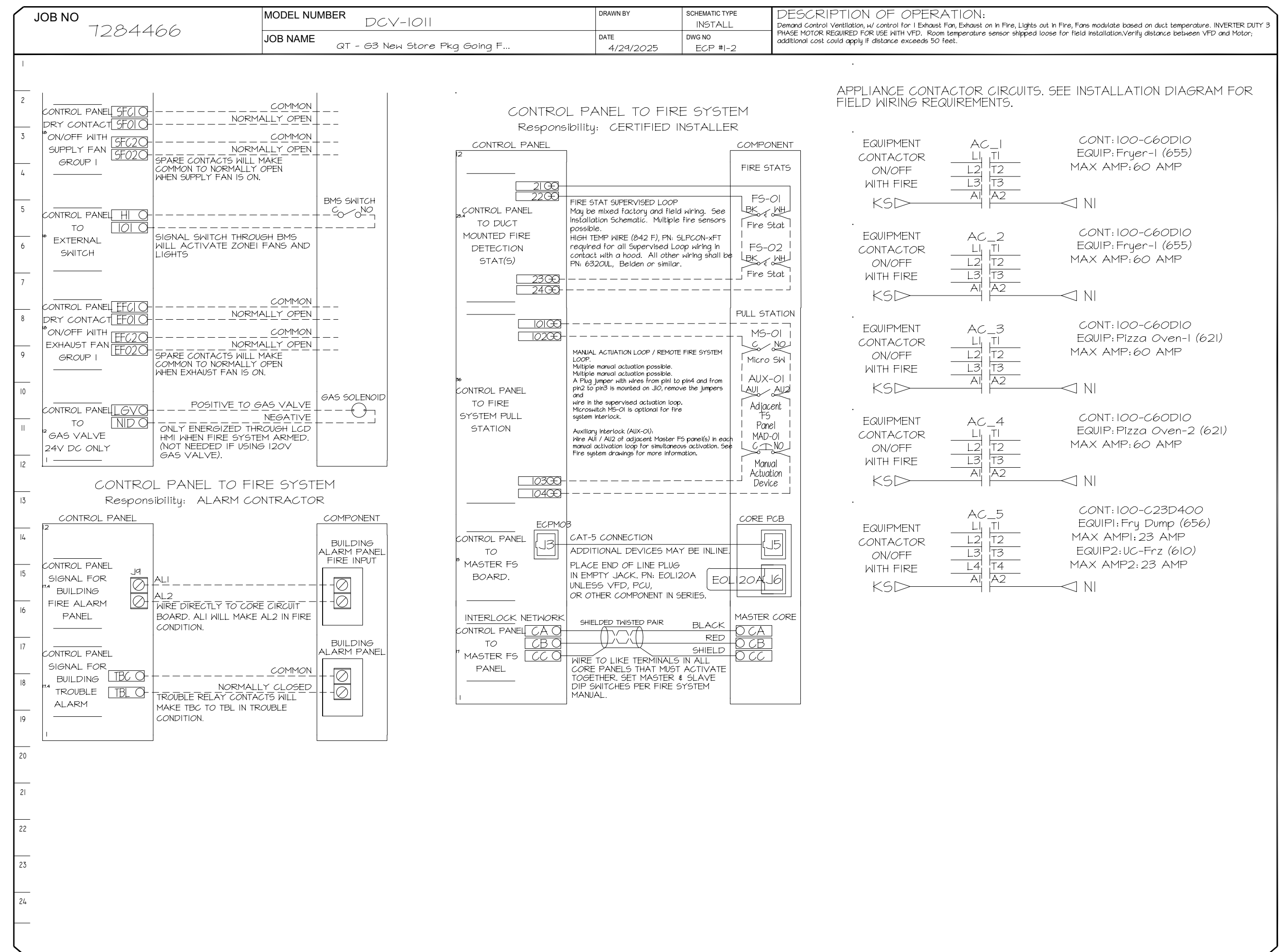
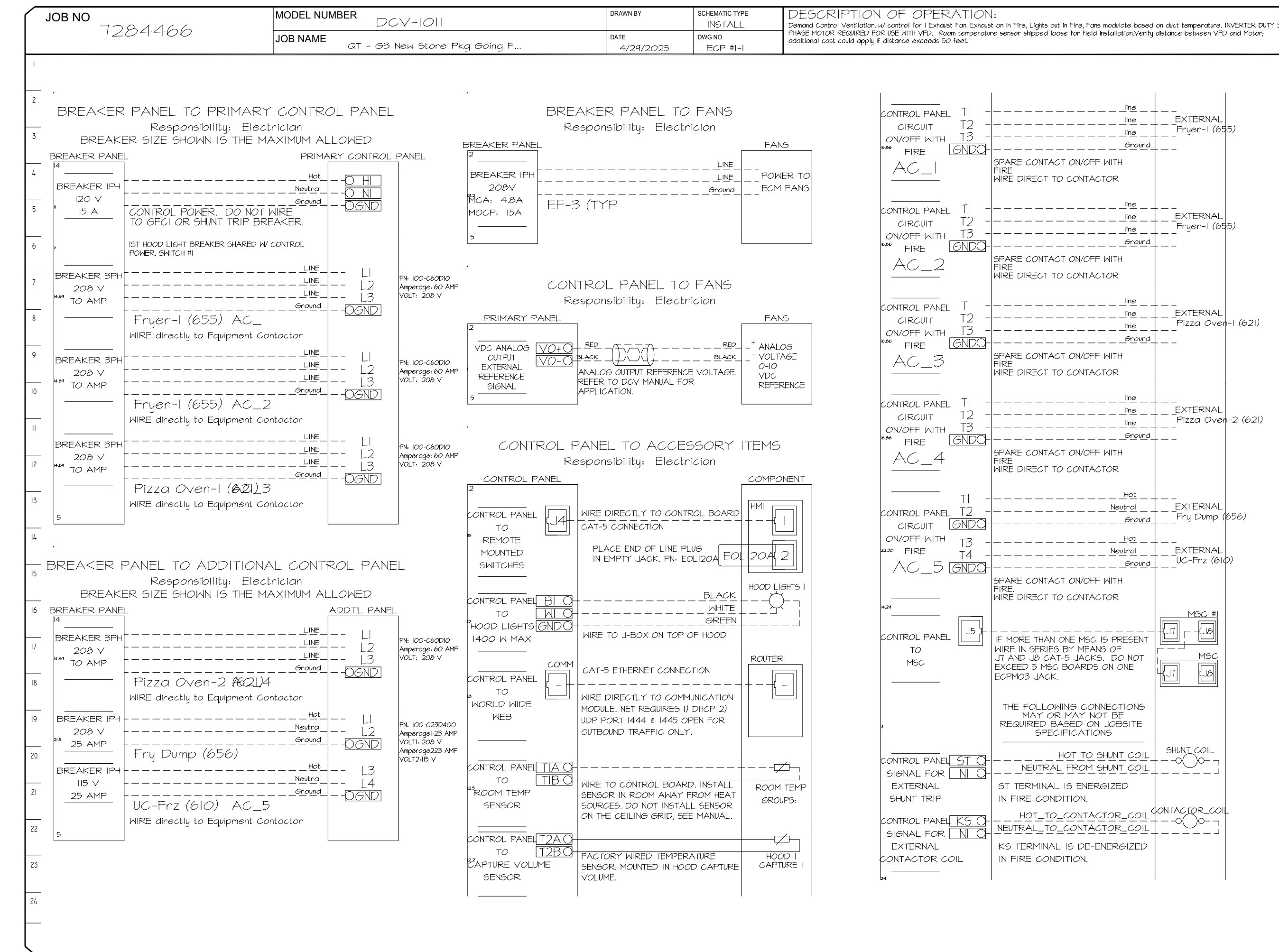


- FEATURES:**
- 20 GA. GALVANIZED STEEL HOUSING.
 - STANDARD 4" - 12" ROUND DUCT CONNECTIONS.
 - EASILY ACCESSIBLE J-BOX.
 - UL507 LISTED.
 - EXTREMELY QUIET OPERATION.
- OPTIONS:**
- FAN CONTROL - 3 AMP WHITE SPEED CONTROL FOR CFA CEILING FAN.
 - 2 YEAR PARTS WARRANTY.



ELECTRICAL PACKAGE - JOB#7284466

NO	TAG	PACKAGE	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLT	FLA	
1	TYPE I ECP	DCV-1011	UTILITY CABINET LEFT	SHIP LOOSE W/ PREWIRED	1 LIGHT 1 FAN	SMART CONTROLS DCV	EF-3 (TYPE 1)	EXHAUST	1	0.500	208	3.8



REVISIONS

NO.	DESCRIPTION	DATE

www.captive.com

Tulsa Office

12101 East 51st Street, Suite 101A, Tulsa, OK 74146 PHONE: (918) 258-0291 FAX: 918-272-7597

DATE: 4/29/2025

DWG.#: 7284466

DRAWN BY: RJH-80

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

MASTER DRAWING

SHEET NO. 3

Bowie Tiglas Engineering Inc.

Phone: 602.982.3900
Fax: 602.982.1541
24820 N 16TH AVE STE 170
PHOENIX, AZ 85025

RT # 25367

KDF JOB #: 24010

QuikTrip No. 1410

400 N 75TH AVE
PHOENIX, AZ

QT

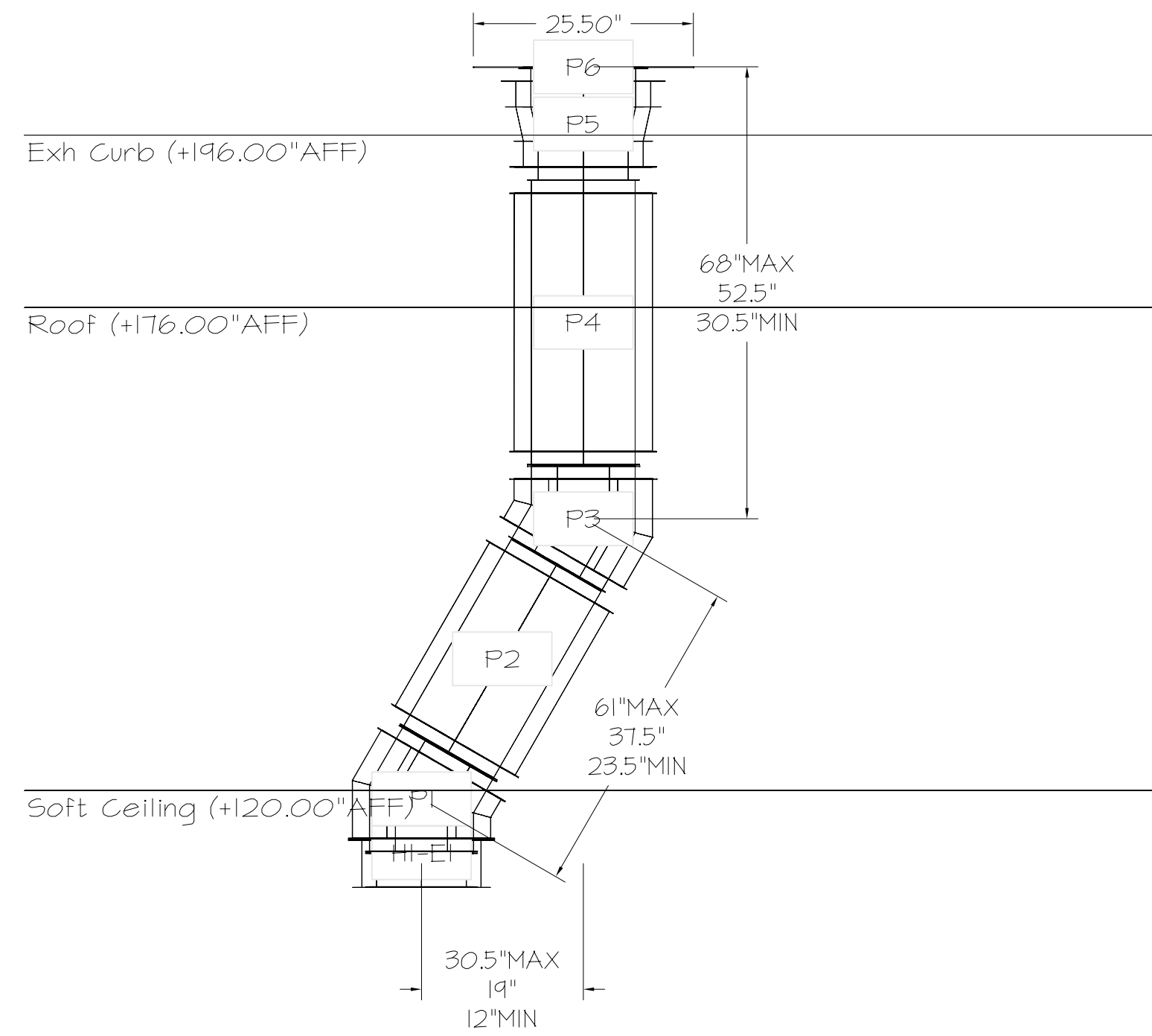
PROTOTYPE FRYER ADDITION
DIVISION PHOENIX
VERSION TCM
DATE 06/20/25

REV	DATE	DESCRIPTION

SHEET TITLE:
MECHANICAL HOOD DETAILS

SHEET NUMBER:
M512

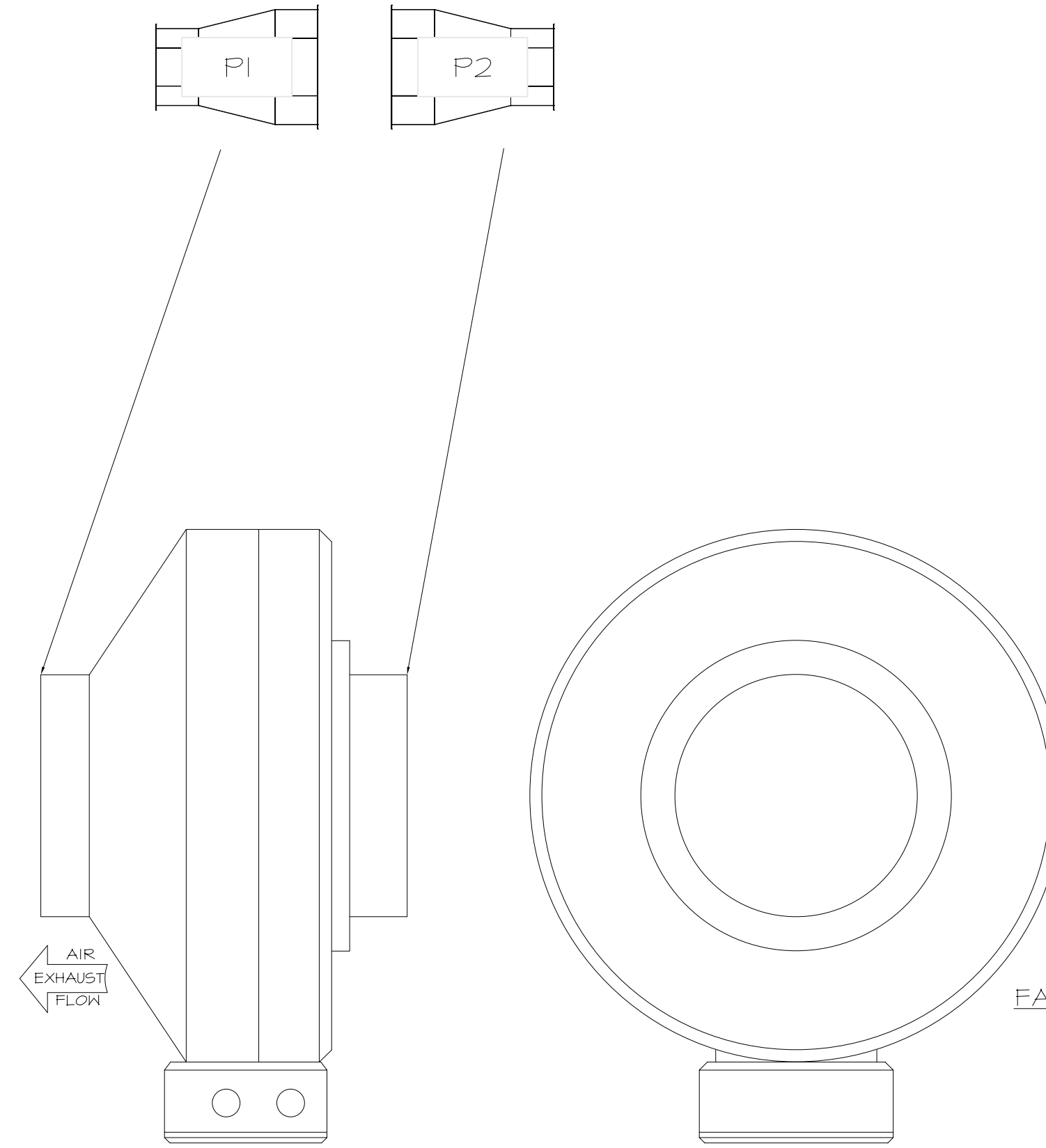
DUCTWORK #1 SIDE VIEW
OFFSET



DUCTWORK #2 PARTS - JOB#7284466

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	HEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW0012ADP11						6.14		1	SINGLE WALL DUCT ADAPTER, 8" DUCT DIA TO 12" DUCT DIA, ASSEMBLY - 430 STAINLESS STEEL.
P2	DW0012ADP11						6.14		1	SINGLE WALL DUCT ADAPTER, 8" DUCT DIA TO 12" DUCT DIA, ASSEMBLY - 430 STAINLESS STEEL.
TOTAL WEIGHT							13.48			

DUCTWORK #2 FRONT VIEW

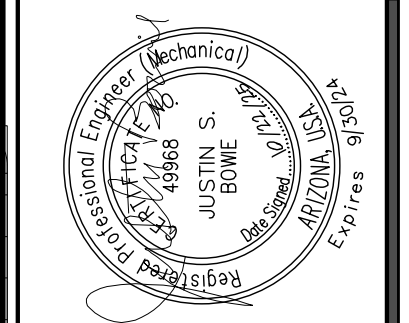


FAN #4 DFA-300-CA - EXHAUST FAN (VF-1 - CO2 FAN)

REVISIONS

DESCRIPTION	DATE

CAPTIVE
www.captiveinc.com
Tulsa Office
12101 East 51st Street, Suite 101A, Tulsa, OK 74146 PHONE: (918) 258-0291 FAX: 9192275947 EMAIL: reg@0@captiveinc.com



Bowie Tiglas Engineering Inc.
Consulting Engineers
Phone: 602.992.3900
Fax: 602.992.1541
Justin@BowieTiglas.com
24820 N 16TH AVE STE 170
PHOENIX, AZ 85065
BTE # 25367

KDF JOB #: 24010

QuikTrip No. 1410
400 N 75TH AVE
PHOENIX, AZ

QT - 63 New Store Pkg Going Forward (DW) (450F)
Various Locations,
Tulsa, OK, 74136



PROTOTYPE	RYER ADDITION
DIVISION	PHOENIX
VERSION	TCM
DATE	06/30/25

REV	DATE	DESCRIPTION

DATE: 4/29/2025
DWG.#: 7284466
DRAWN BY: RJH-80
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET TITLE:
MECHANICAL HOOD
DETAILS

SHEET NO.
5

SHEET NUMBER:
M514

SYSTEM DESIGN VERIFICATION (SDV)

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.

