

HOOD INFORMATION – Job#2642631

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM RISER(S)						TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG.		
					TOTAL EXH. CFM	WIDTH	LENG.	HEIGHT	DIA.	CFM			S.P.	END TO END	ROW
1	FRONT LEFT	5424 ND-2	13' 0.00"	600 Deg.	3250	14"	22"	4"		3250	-0.429'	0	430 SS Where Exposed	LEFT	ALONE
2	FRONT RIGHT	5424 VHB	13' 0.00"	700 Deg.	2275	16"	16"	4"		2275	-0.198'	0	430 SS 100%	RIGHT	ALONE
3	BACK	5424 ND-2	13' 0.00"	600 Deg.	2600	14"	16"	4"		2600	-0.402'	0	430 SS Where Exposed	ALONE	ALONE
4	SUPPLY PLENUM - F, L	206 MISC-PSP	13' 0.00"	300 Deg.	0					2450			430 SS Where Exposed	ALONE	ALONE
5	SUPPLY PLENUM - F, R	206 MISC-PSP	13' 0.00"	300 Deg.	0					2200			430 SS Where Exposed	ALONE	ALONE
6	SUPPLY PLENUM - BACK	206 MISC-PSP	14' 8.00"	300 Deg.	0					2400			430 SS Where Exposed	ALONE	ALONE

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WGT	
		TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 9 MICRONS	QTY.	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE			ELECTRICAL MODEL #
1	FRONT LEFT	SS Baffle with Handles	9	20"	16"	30%	4	L55 Series E26	ND						NO	606 LBS
2	FRONT RIGHT						4	L55 Series E26	ND						NO	340 LBS
3	BACK	SS Baffle with Handles	9	20"	16"	30%	4	L55 Series E26	ND	Right	20"x54"x24"		SC-331110FP	1 Light 1 Fan	NO	722 LBS

ND-2 Series Specification

The model ND-2 is an exhaust only canopy hood rated for all types of cooking equipment. The hood shall have the size, shape and performance specified on drawings.

Construction shall be type 430 stainless steel, with a #3 or #4 polish where exposed. The manufacturer, ETL and NSF shall determine the individual component construction. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints and penetrations of the hood enclosure to the lower outermost perimeter that directs and captures grease-laden vapor and exhaust gases shall have a liquid-tight continuous external weld in accordance with NFPA 96. The hood shall be wall type with a minimum of four connections for hanger rods. Connectors shall have 9/16" holes pre-punched in 1 1/2" x 1 1/2" angle iron at the factory to allow for hanger rod connection by others.

The hood shall be furnished with UL classified filters, supplied in size and quantity as required by ventilator. The filters shall extend the full length of the hood and the filler panels shall not be more than 6" in width.

The hood manufacturer shall supply complete computer generated submittal drawings including hood sections view(s) and hood plan view(s). These drawings must be available to the engineer, architect and owner for their use in construction, operation and maintenance.

Exhaust duct collar to be 4" high with 1" flange. Duct sizes, CFM and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

UL incandescent light fixtures and globes shall be installed and pre-wired to a junction box. The light fixtures shall be installed with a maximum of 4'0" spacing on center and allow up to a 100 watt standard light bulb.

- The hood shall have:
- A double wall insulated front to eliminate condensation and increase rigidity. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.
 - An integral front baffle to direct grease laden vapors toward the exhaust filter bank.
 - A built-in wiring chase provided for outlets and electrical controls on the hood face and shall not penetrate the capture area or require an external chase way.
 - Removable grease cup for easy cleaning.

The hood shall be ETL Listed as "Exhaust Hood Without Exhaust Damper", NSF Listed and built in accordance with NFPA 96.

The hood shall be listed for 450°F cooking surfaces at 150 CFM/ft, 600°F cooking surfaces at 200 CFM/ft, and 700°F cooking surfaces at 250 CFM/ft. The hood shall be ETL Listed as "Exhaust Hood Without Exhaust Damper".

Series with PSP Accessory Specification

The Series with PSP Accessory is a compensating wall canopy ventilator rated for all types of cooking equipment. Shall be capable of providing up to 80% make-up air through a front perforated stainless steel plenum. The hood shall have size, shape and performance specified on drawings.

Construction shall be type 430 stainless steel with a #3 or #4 polish where exposed. Individual component construction shall be determined by manufacturer and ETL. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints and penetrations of the hood enclosure to its lower outermost perimeter that directs and captures grease-laden vapor and exhaust gases shall have a liquid-tight continuous external weld in accordance with NFPA 96. Hood shall be wall type with a minimum of four connections for hanger rods. Connectors shall have 9/16" holes pre-punched in 1 1/2" x 1 1/2" angle iron at the factory to allow for hanger rod connection by others.

Ventilator shall be furnished with U.L. classified aluminum baffle filters, supplied in size and quantity as required by ventilator. The filters shall extend the full length of the hood and the filler panels shall not be more than 6".

Exhaust duct collar to be 4" high with 1" flange. Duct sizes, CFM and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

U.L. incandescent light fixtures and globes shall be installed and pre-wired to a junction box. The light fixtures shall be installed with a maximum of 4'0" spacing on center and allow up to a 100 watt standard light bulb.

The hood shall have:

- * A double wall insulated front to eliminate condensation and increase rigidity. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.
- * An integral front baffle to direct grease laden vapors toward the exhaust filter bank.
- * The grease drain system shall be an integral part of the hood back and have a minimum 1/8" per foot slope with an exposed, removable 1/2 pint grease cup to facilitate cleaning.

The front plenum shall provide make-up air through perforated stainless steel panels.

All seams shall be welded and have stainless steel on exposed surfaces. Unexposed surfaces shall be constructed of aluminized steel. Perforated diffuser plates shall be included in the design, to provide even air distribution.

The hood shall be Listed as "Exhaust Hood Without Exhaust Damper", ETL Sanitation Listed and built in accordance with NFPA 96. The hood shall be listed for 450° F cooking surfaces at 150 CFM/ft, 600° F cooking surfaces at 200 CFM/ft, and 700° F cooking surfaces at 250 CFM/ft.

VHB Series Specification

The VHB series heat/condensate hood is a single wall vent hood used in non-grease applications for the removal of heat, vapor etc. Hood shall have the size, shape and performance specified on the drawings.

Construction shall be type 430 stainless steel with a #3 or #4 polish where exposed. Hood shall be wall or island type with fully welded 10 gauge corner hanging angles. Corner hanging angles have a 625 x 1500 slot pre-punched at the factory, allowing hanging rods to be used for quick and safe installations. Hanging rod and connection is provided by and installed by others.

The hood manufacturer shall supply complete submittal drawings including hood section view(s) and hood plan view(s). These drawings must be made available to the engineer, architect and owner for their use in construction, operation and maintenance.

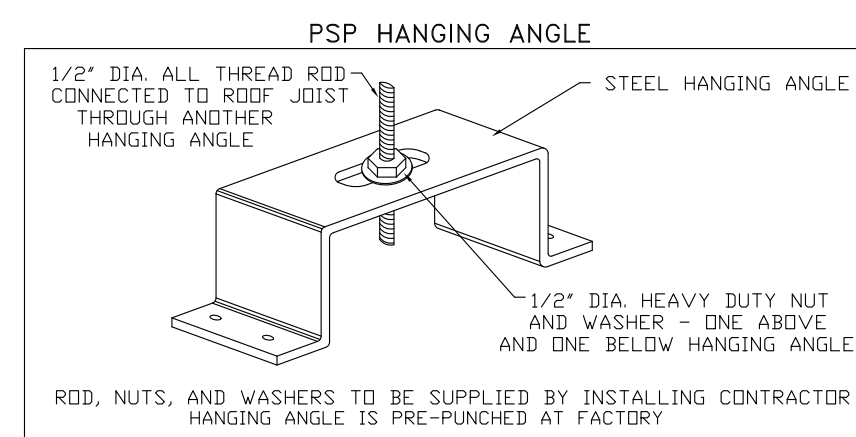
Exhaust duct collar to be 4" high with 1" flanges. Duct sizes, CFM and static pressure requirements shall be as shown on the drawings. Hood shall be ETL Sanitation listed.

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1	FRONT LEFT	BACKSPLASH 80.00" High X 312.00" Long 430 SS Vertical
		INSULATION FOR TOP OF HOOD
2	FRONT RIGHT	LEFT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 4" Legs 430 SS
		RIGHT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 4" Legs 430 SS
3	BACK	BACKSPLASH 80.00" High X 176.00" Long 430 SS Vertical
		INSULATION FOR TOP OF HOOD
		RIGHT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 4" Legs 430 SS
		LEFT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 4" Legs 430 SS

PERFORATED SUPPLY PLENUM(S)

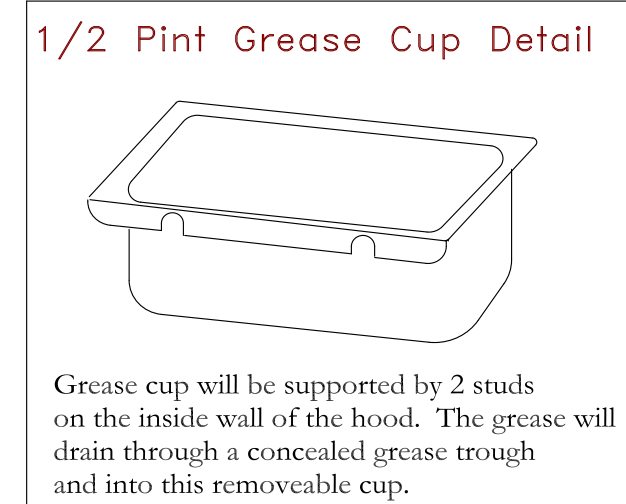
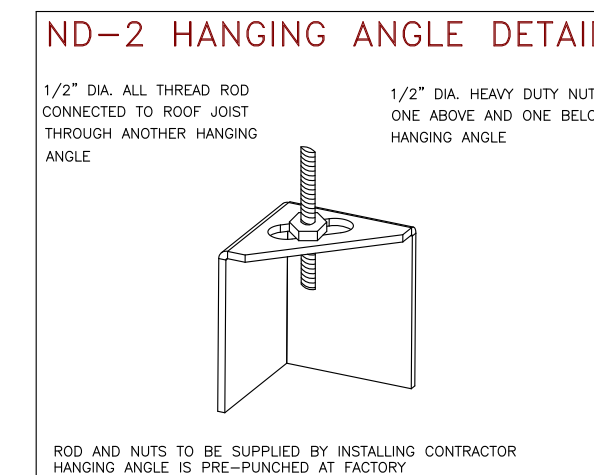
HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG.	DIA.	CFM	S.P.
4	SUPPLY PLENUM - F, L	Front	156'	20'	6'	MUA	12"	28"		816	0.247"
							12"	28"		816	0.247"
							12"	28"		816	0.247"
5	SUPPLY PLENUM - F, R	Front	156'	20'	6'	MUA	12"	28"		733	0.202"
							12"	28"		733	0.202"
							12"	28"		800	0.206"
6	SUPPLY PLENUM - BACK	Front	176'	20'	6'	MUA	12"	28"		800	0.206"
							12"	28"		800	0.206"
							12"	28"		800	0.206"



CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH

NSF
BUILT IN ACCORDANCE WITH NFPA 96

UL 710 & ULC710 STANDARDS
E.T.L. LISTED 3054804-001



REVISIONS

DESCRIPTION	DATE



Fork Food Lab r4 - 3-13ft
PORTLAND, ME, 04101

DATE: 4/29/2016

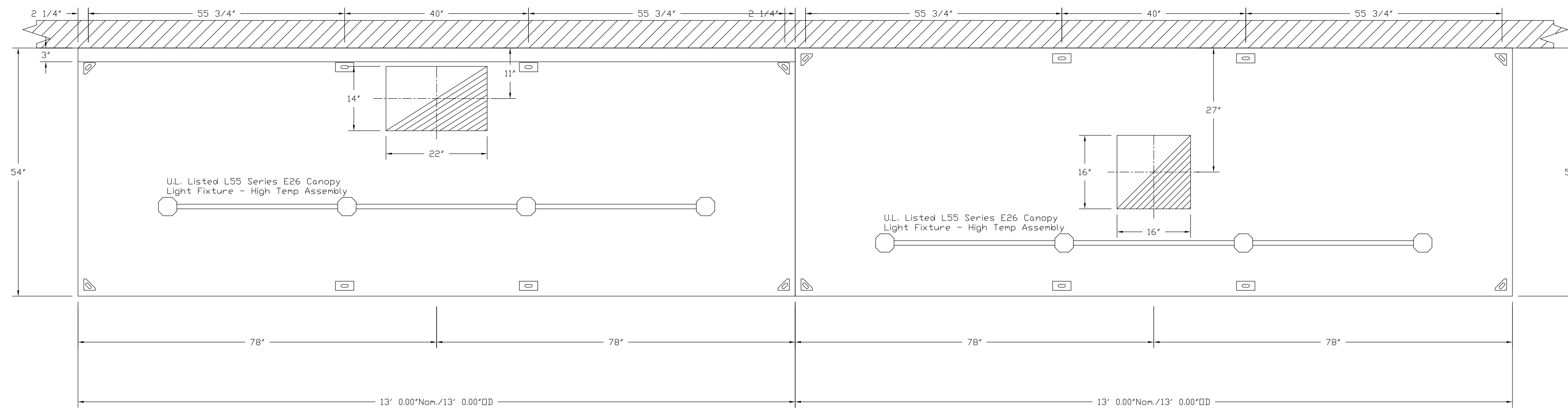
DWG.#: 2642631

DRAWN BY: BFC-21

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

MASTER DRAWING

SHEET NO.

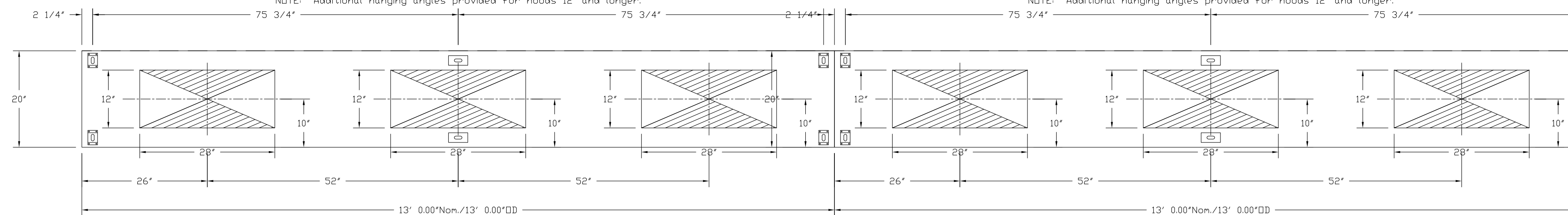


PLAN VIEW - Hood #1 (FRONT LEFT)
13' 0.00" LONG 5424ND-2

PLAN VIEW - Hood #2 (FRONT RIGHT)
13' 0.00" LONG 5424VHB

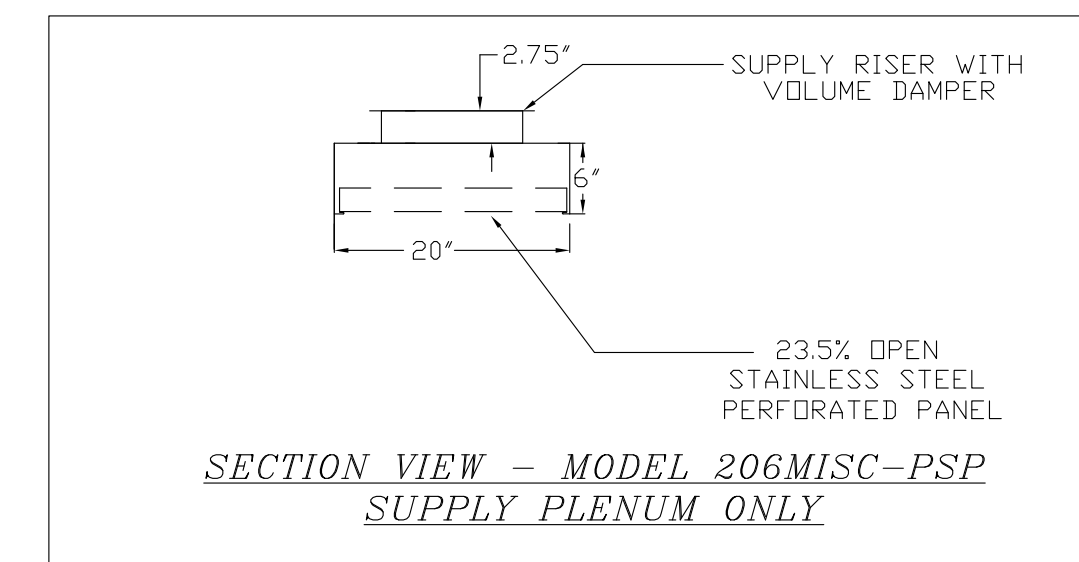
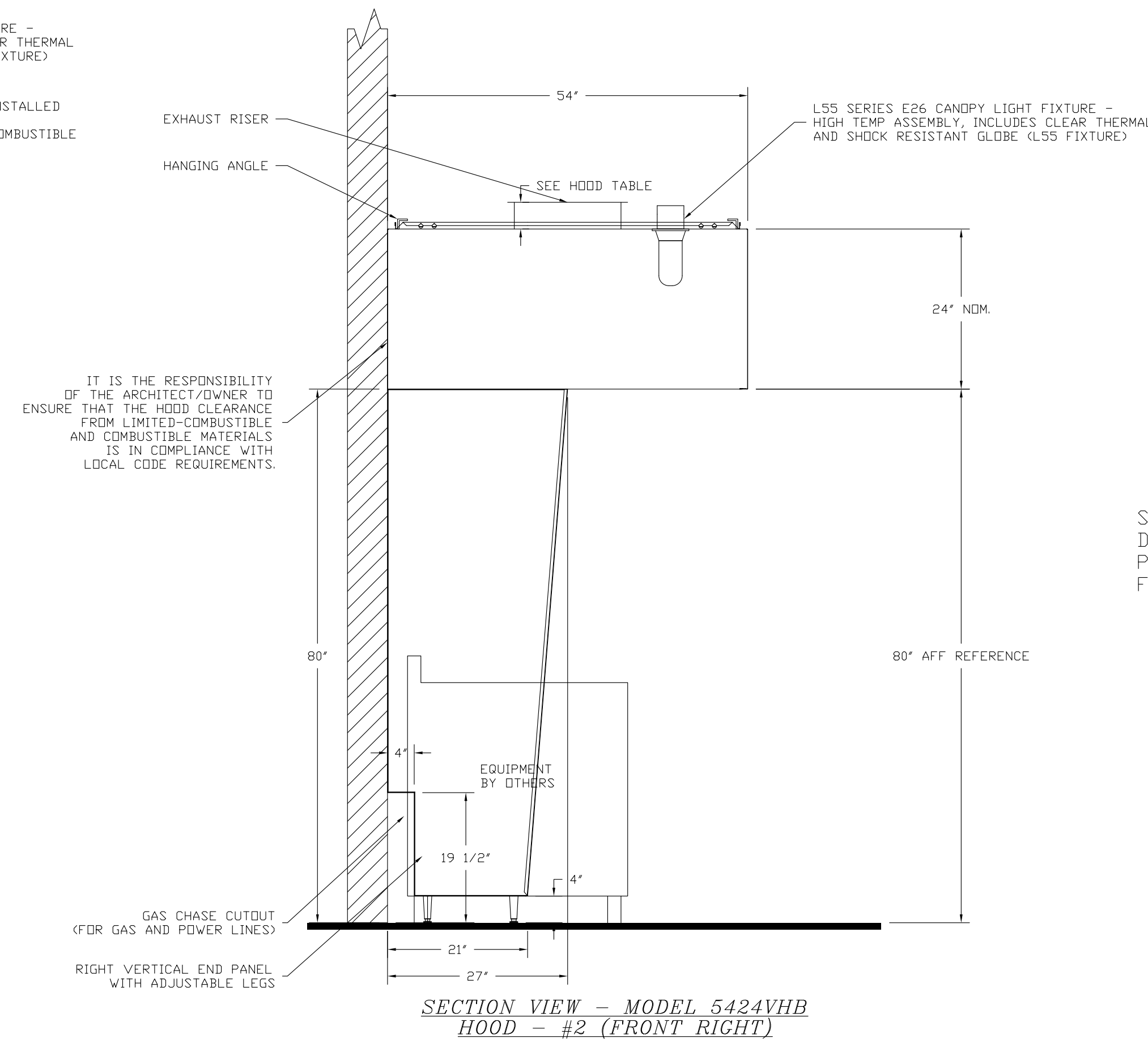
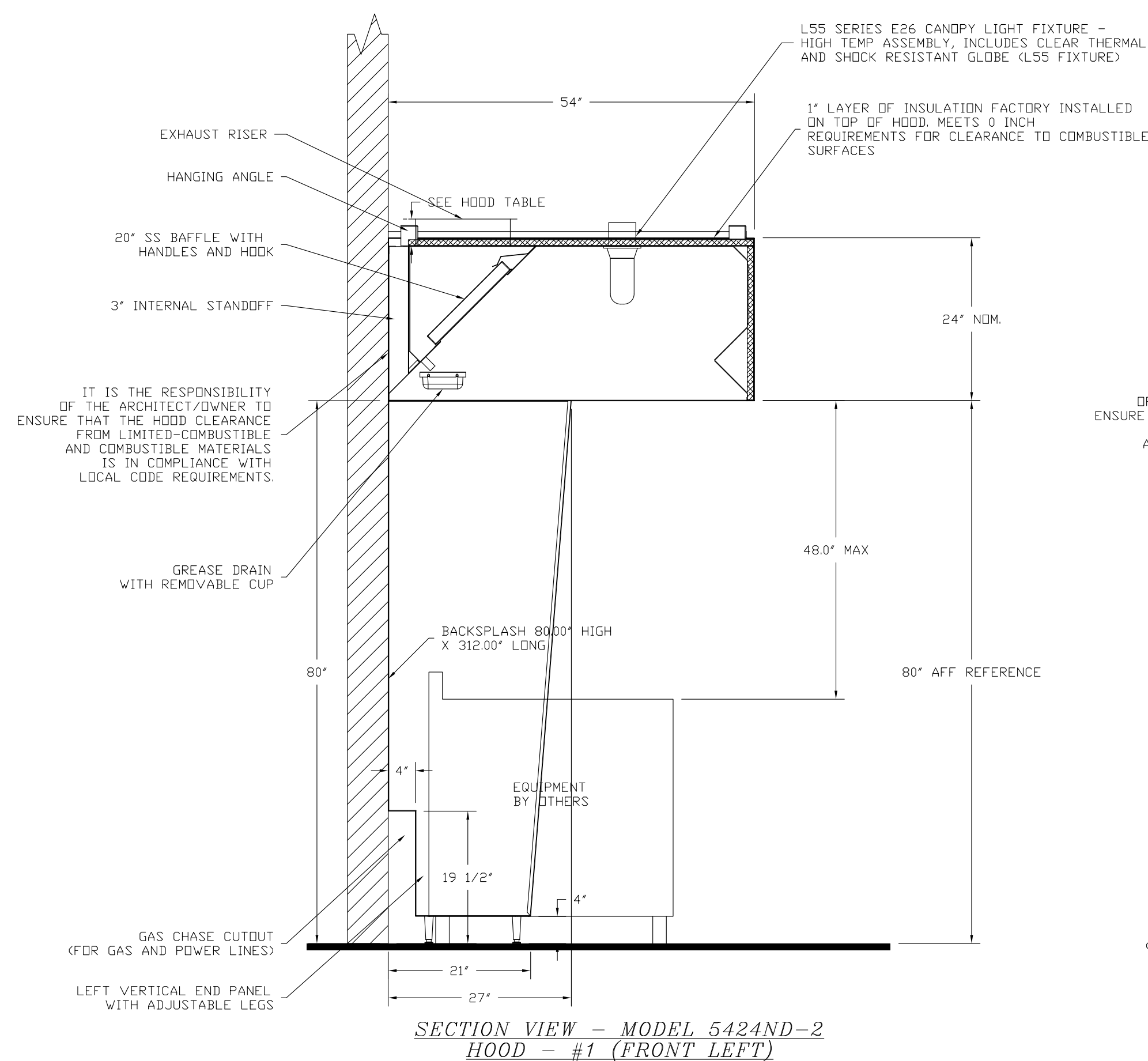
NOTE: Additional hanging angles provided for hoods 12' and longer.

NOTE: Additional hanging angles provided for hoods 12' and longer.



PLAN VIEW - Hood #4 (SUPPLY PLENUM - F, L)
13' 0.00" LONG 206MISC-PSP

PLAN VIEW - Hood #5 (SUPPLY PLENUM - F, R)
13' 0.00" LONG 206MISC-PSP



SUPPLY PLENUMS HAVE BEEN DESIGNED TO BE HUNG WITH DISCHARGE AT 91" ABOVE FINISHED FLOOR. SUPPLY PLENUMS SHALL BE HUNG AS CLOSE TO HOODS AS POSSIBLE FOR BEST PERFORMANCE.

REVISIONS	
DESCRIPTION	DATE

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MAINE OFFICE

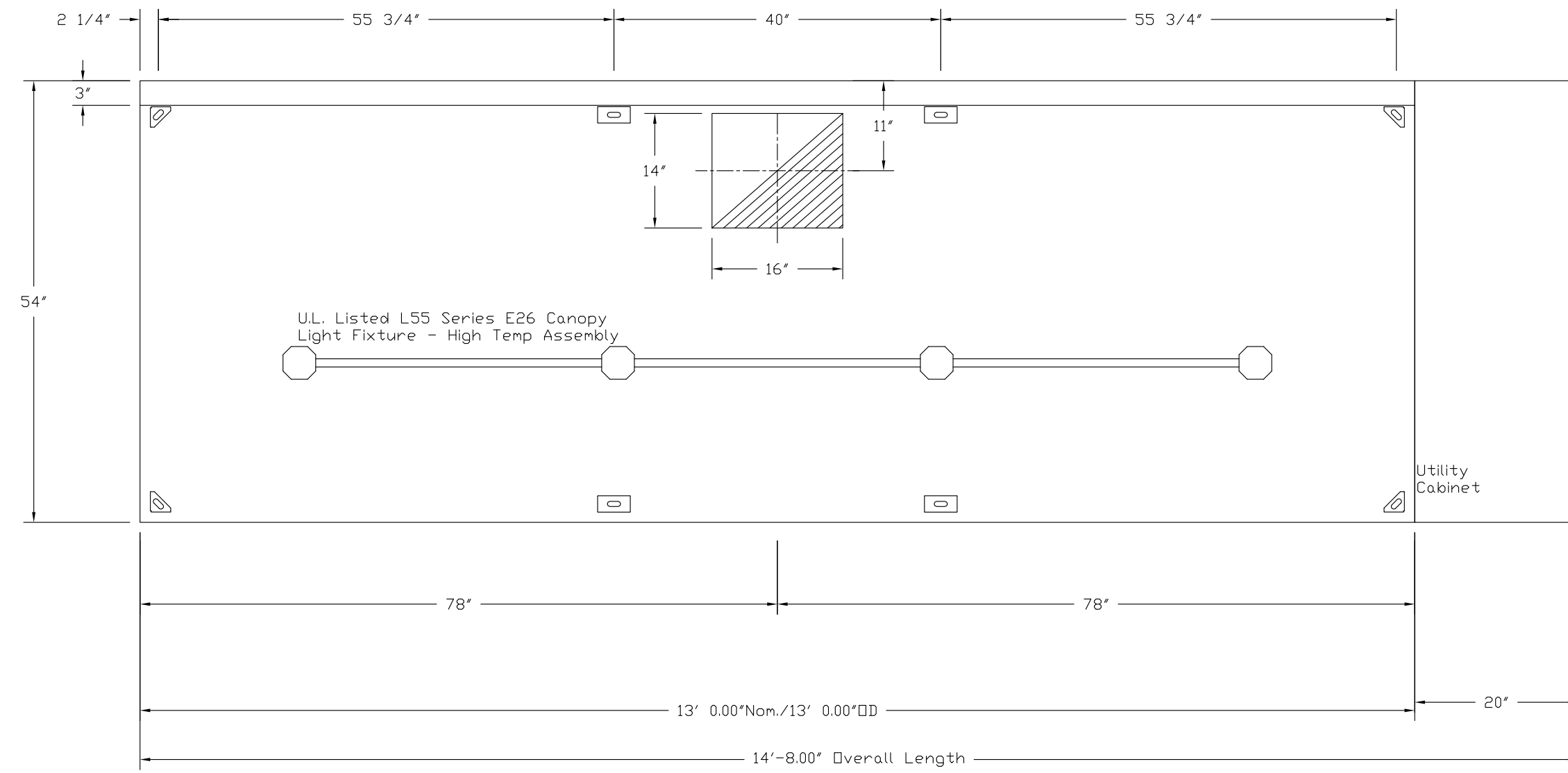
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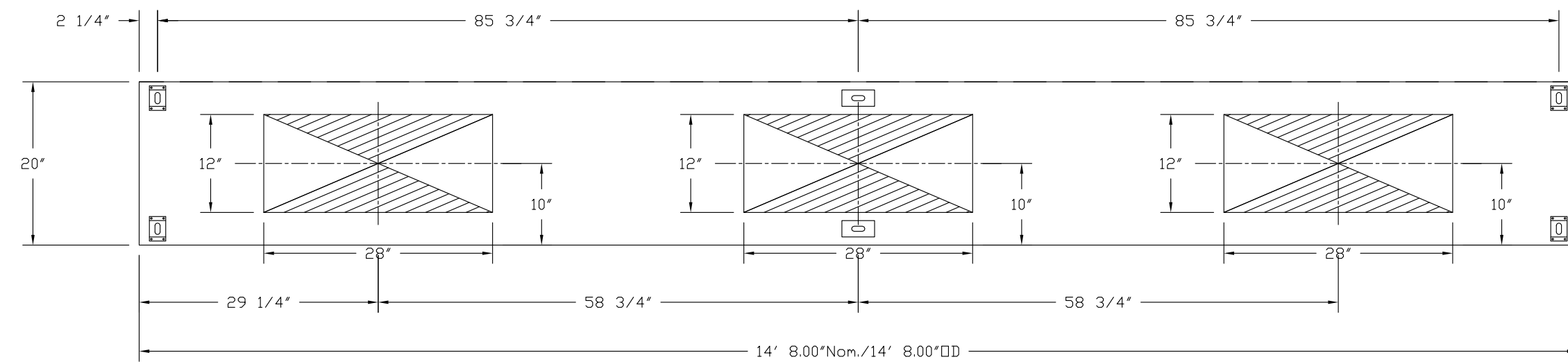
Fork Food Lab r4 - 3-13ft
PORTLAND, ME, 04101

DATE: 4/29/2016
DWG.#: 2642631
DRAWN BY: BFC-21
SCALE: 3/4" = 1'-0"
MASTER DRAWING

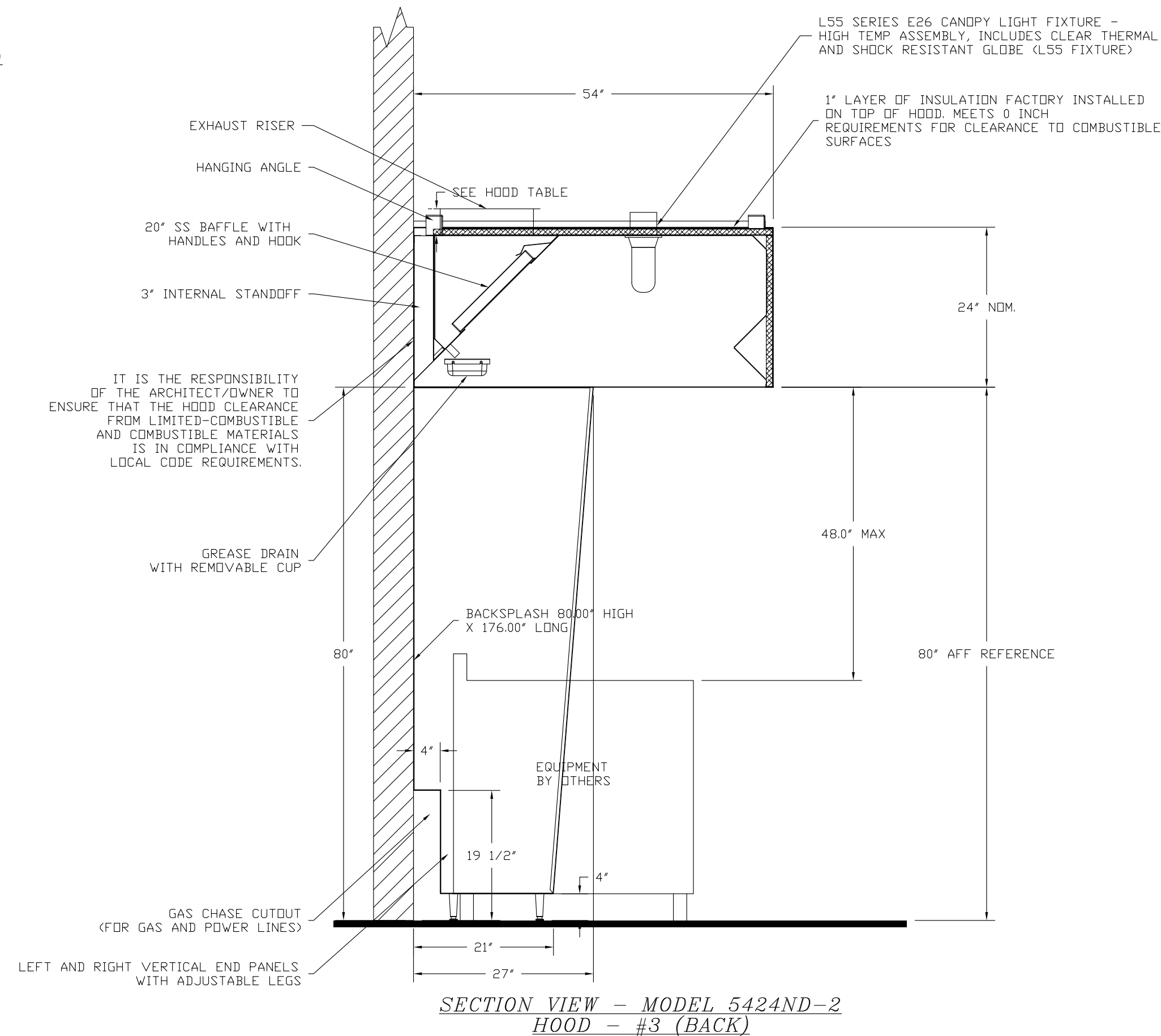
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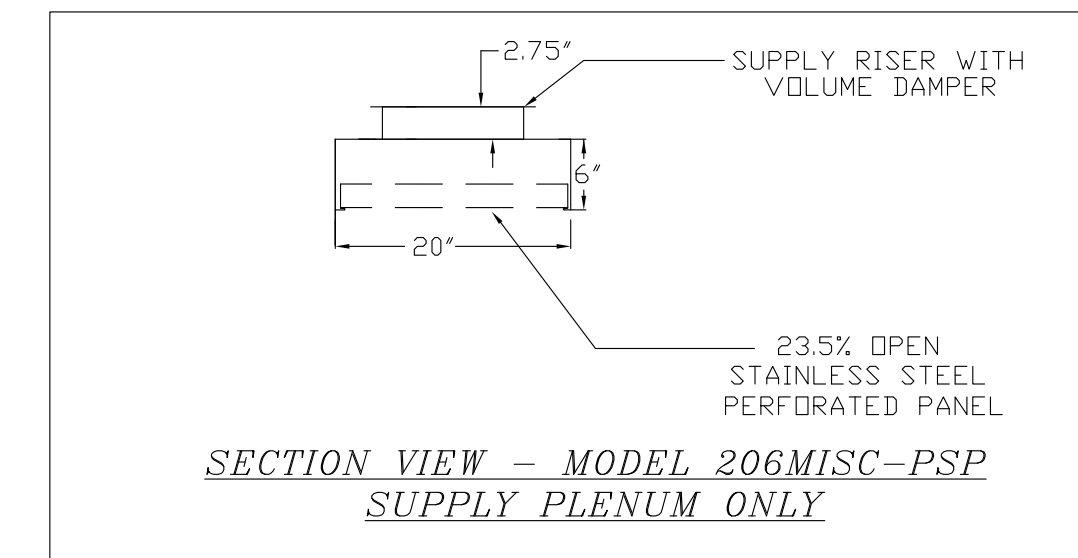
PLAN VIEW - Hood #3 (BACK)
13' 0.00" LONG 5424ND-2
NOTE: Additional hanging angles provided for hoods 12' and longer.



PLAN VIEW - Hood #6 (SUPPLY PLENUM - BACK)
14' 8.00" LONG 206MISC-PSP



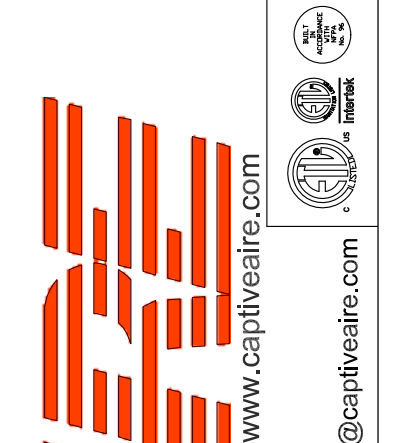
SECTION VIEW - MODEL 5424ND-2
HOOD - #3 (BACK)



SUPPLY PLENUMS HAVE BEEN DESIGNED TO BE HUNG WITH DISCHARGE AT 91" ABOVE FINISHED FLOOR. SUPPLY PLENUMS SHALL BE HUNG AS CLOSE TO HOODS AS POSSIBLE FOR BEST PERFORMANCE.

REVISIONS

DESCRIPTION	DATE



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

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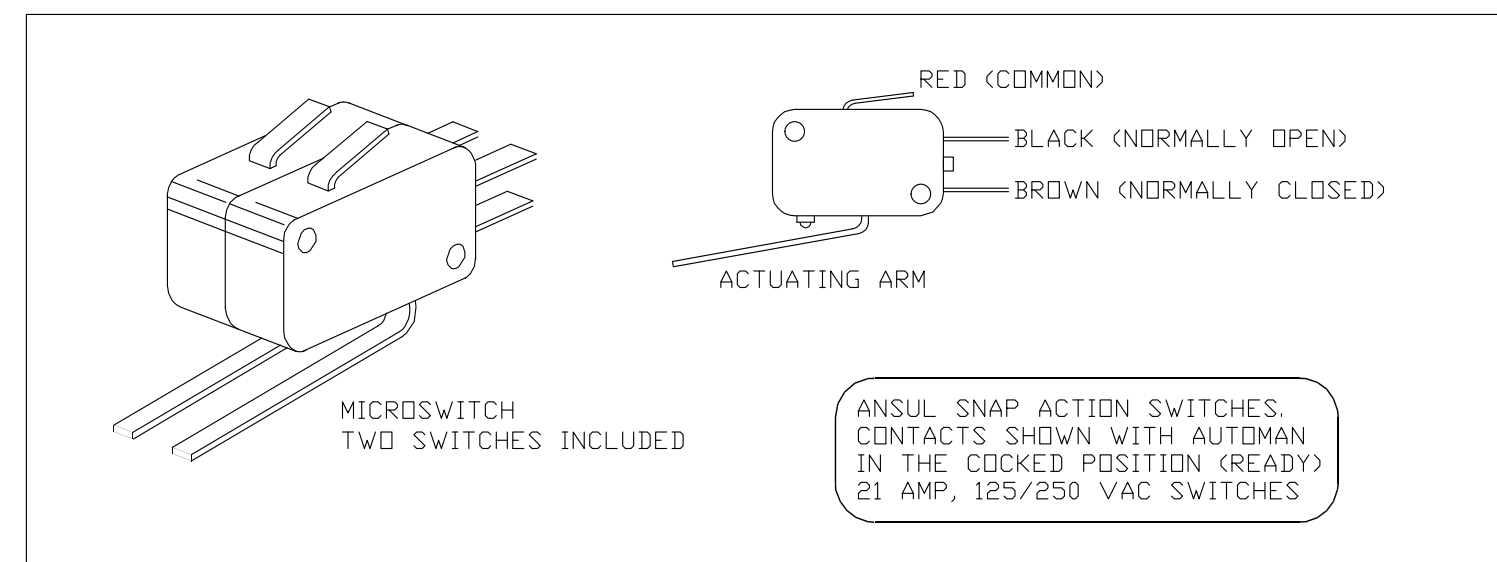
SHEET NO. 3

HOOD AND ANSUL SYSTEM SEQUENCE OF OPERATION

THE HOOD WILL BE EQUIPPED WITH AN ANSUL R-102 SYSTEM THAT HAS FUSEABLE LINKS FOR AUTOMATIC DETECTION OF A FIRE. THESE LINKS ARE SET TO MELT AT A PREDETERMINED TEMPERATURE AND WILL ACTIVATE THE ANSUL SYSTEM ONCE THAT TEMPERATURE IS EXCEEDED. THE ANSUL SYSTEM CAN ALSO BE ACTIVATED BY PULLING THE REMOTE PULL STATION HANDLE. ONCE ONE OF THESE TWO EVENTS HAVE OCCURRED, THE FOLLOWING SEQUENCE WILL TAKE PLACE.

1. TENSION IN THE WIRE CABLE THAT CONNECTS THE FUSEABLE LINKS, REMOTE PULL STATION, AND THE MECHANICAL GAS VALVE TO THE ANSUL REGULATED RELEASE ASSEMBLY WILL BE RELEASED. AT THIS TIME THE FOLLOWING WILL TAKE PLACE.
 - A. THE GAS VALVE WILL SHUT OFF THE FLOW OF GAS TO THE COOKING APPLIANCES
 - B. THE REGULATED RELEASE ASSEMBLY WILL ALLOW THE SYSTEM TO START SPRAYING THE ANSULEX LOW PH LIQUID FIRE SUPPRESSANT INTO THE PLENUM AREA, THE FILTERS, COOKING SURFACE, AND THE EXHAUST DUCT SYSTEM AT A PREDETERMINED FLOW RATE TO SUPPRESS THE FIRE.
 - C. THE REGULATED RELEASE ASSEMBLY WILL CHANGE THE STATE OF A SET OF MICRO SWITCHES THAT ARE WIRED TO THE HOODS ELECTRICAL CONTROL PACKAGE.
2. ONCE THE MICRO SWITCHES CHANGE STATE THE FOLLOWING EVENTS WILL TAKE PLACE.
 - A. THE EXHAUST FAN WILL TURN ON IF IT WAS OFF OR REMAIN RUNNING IF IT WAS ON AT THE TIME THE FIRE OCCURRED.
 - B. THE MAKE UP AIR FAN WILL SHUT DOWN
 - C. THE SHUNT TRIP DEVICE WIRED TO THE ELECTRICAL CONTROL PACKAGE WILL RECEIVE A SIGNAL TO SHUT DOWN THE APPLIANCES WIRED TO IT SO THAT THERE IS NO ELECTRICAL APPLIANCE UNDER THE HOOD RECEIVING POWER FROM THE BUILDING.
 - D. ADDITIONAL EVENTS MAY ALSO OCCUR AT THIS TIME DEPENDING ON LOCAL CODES SUCH AS A SIGNAL BEING SENT TO ACTIVATE THE BUILDING ALARM OR THE LIGHTS IN THE HOOD WILL TURN OFF.

ANSUL MICROSWITCH DETAIL



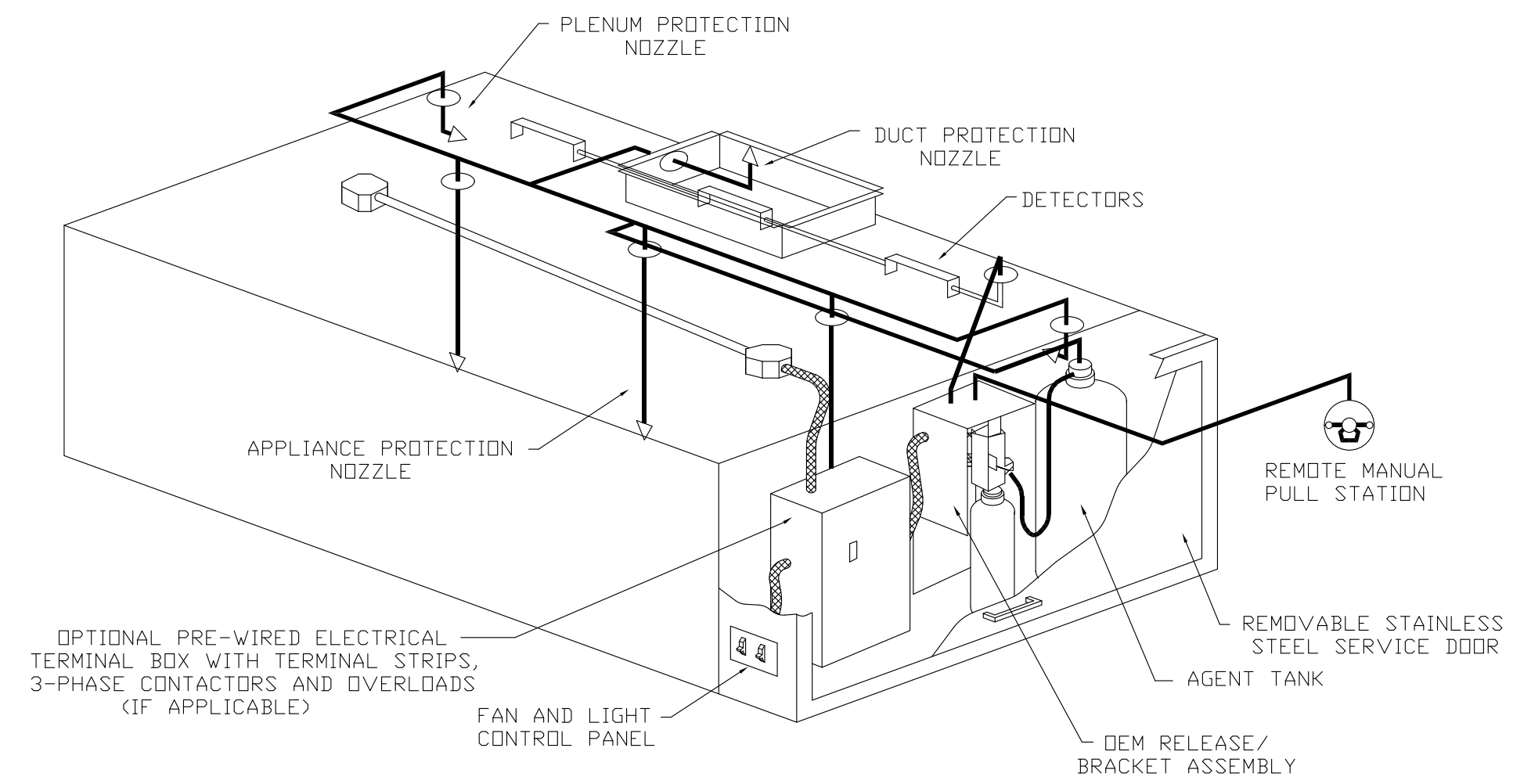
SPECIFICATIONS

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.

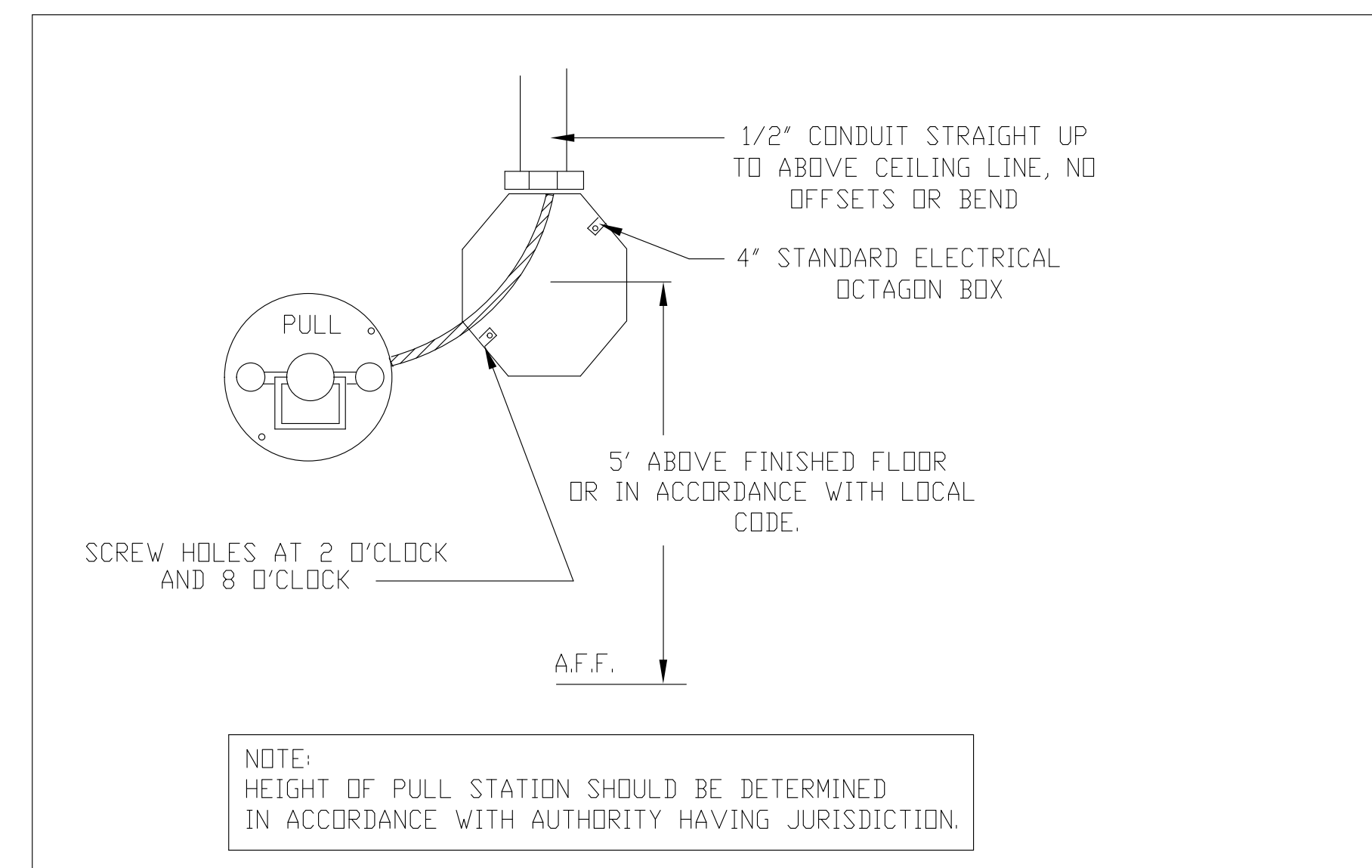
THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET/ LINKAGE ASSEMBLY.



TYPICAL ANSUL R-102 SYSTEM LAYOUT

ONE FIRE SUPPRESSION TO BE PROVIDED TO PROTECT HOODS #1 AND #3. SYSTEM TO BE LOCATED IN UTILITY CABINET ON HOOD #3.

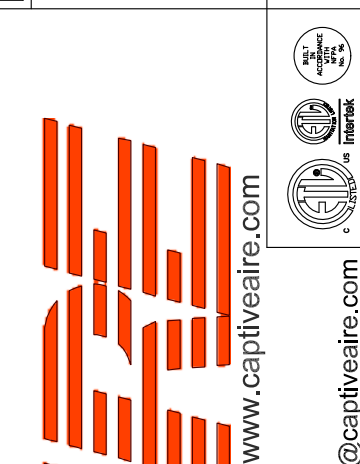
ANSUL PULL STATION DETAIL



NOTE:
HEIGHT OF PULL STATION SHOULD BE DETERMINED
IN ACCORDANCE WITH AUTHORITY HAVING JURISDICTION.

REVISIONS

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Fork Food Lab r4 - 3-13ft
 PORTLAND, ME, 04101

DATE: 4/29/2016

DWG.#:
2642631

DRAWN BY: BFC-21

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

MASTER DRAWING

SHEET NO.
4

EXHAUST FAN INFORMATION - Job#2642631

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SDNES
1	FRONT LEFT	NCA16FA	3250	0.500	993	1.500	0.7270	3	208	4.6	193	13.7
2	FRONT RIGHT	NCA16FA	2275	0.250	697	0.750	0.2620	3	208	2.5	186	7.7
3	BACK	NCA16FA	2600	0.400	820	1.000	0.4230	3	208	3.4	188	10.4

MUA FAN INFORMATION - Job#2642631

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SDNES	BURNER EFFICIENCY(%)
4		A3-D.750-G18	G18-PB	A3-D.750	7050	0.750	869	7.500	4.3710	3	208	21.1	1204	16	92

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO.	TAG	INPUT BTUs	OUTPUT BTUs	TEMP. RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE
4		587602	540594	71 deg F	7 in. w.c. - 14 in. w.c.	Natural

FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. - Descr.)
1	FRONT LEFT	1 - Grease Box
		1 - Full Crating For Exhaust Fans
		1 - Fan Base Ceramic Seal - For Grease Ducts
2	FRONT RIGHT	1 - Grease Box
		1 - Full Crating For Exhaust Fans
		1 - Fan Base Ceramic Seal - For Grease Ducts
3	BACK	1 - Grease Box
		1 - Full Crating For Exhaust Fans
		1 - Fan Base Ceramic Seal - For Grease Ducts
4		1 - AC Interlock Relay - 24VAC Coil
		1 - Motorized Backdraft Damper for A3-D Housing
		1 - Full Crating For Commercial Heater
		1 - Low Fire Start
		1 - Inlet Pressure Gauge, 0-35"
		1 - Manifold Pressure Gauge, -5 to 15" wc

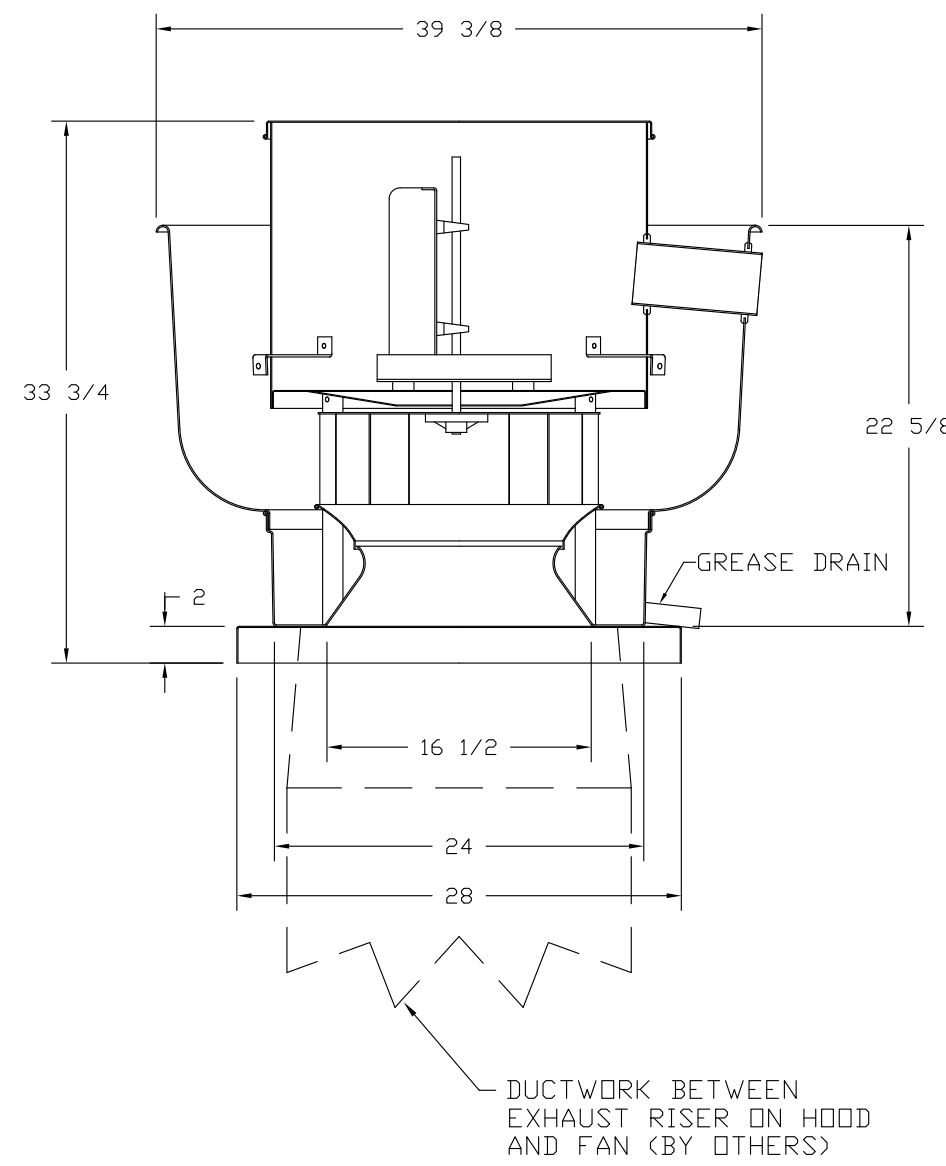
FAN ACCESSORIES

FAN UNIT NO.	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	FRONT LEFT	YES						
2	FRONT RIGHT	YES						
3	BACK	YES						
4					YES		YES	

CURB ASSEMBLIES

NO.	ON FAN	WEIGHT	ITEM	SIZE
1	# 1	34 LBS	Curb	26.500"W x 26.500"L x 24.000"H Vented Hinged
2	# 2	34 LBS	Curb	26.500"W x 26.500"L x 24.000"H Vented Hinged
3	# 3	34 LBS	Curb	26.500"W x 26.500"L x 24.000"H Vented Hinged
4	# 4	96 LBS	Curb	35.000"W x 84.000"L x 24.000"H Insulated

FANS #1 (FRONT LEFT), #2 (FRONT RIGHT), #3 (BACK) - NCA16FA EXHAUST FAN



FEATURES:

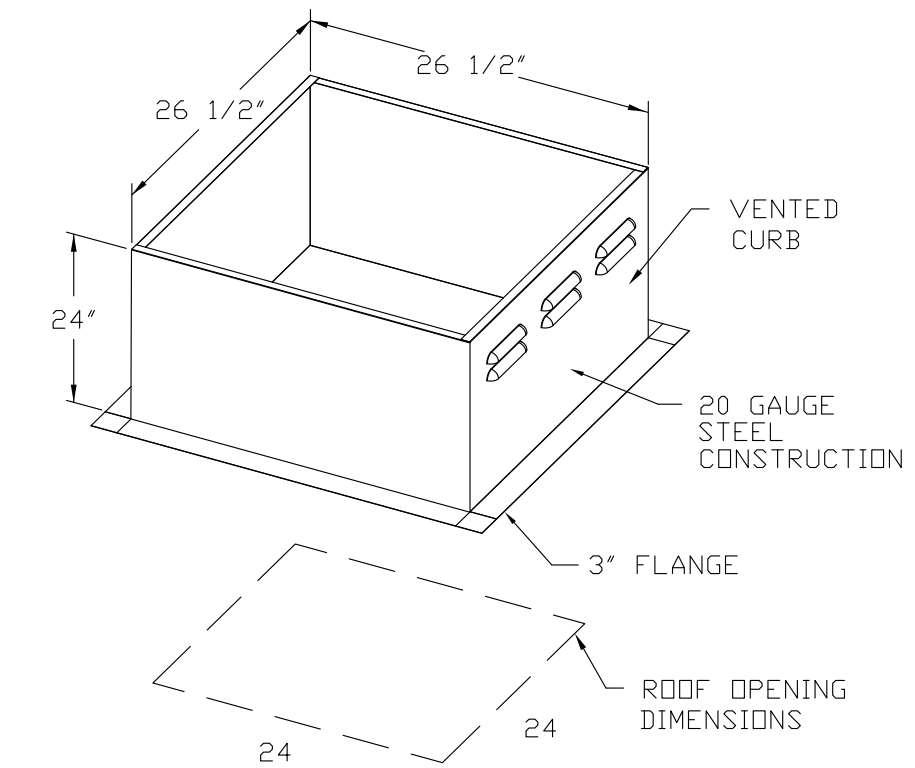
- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

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.

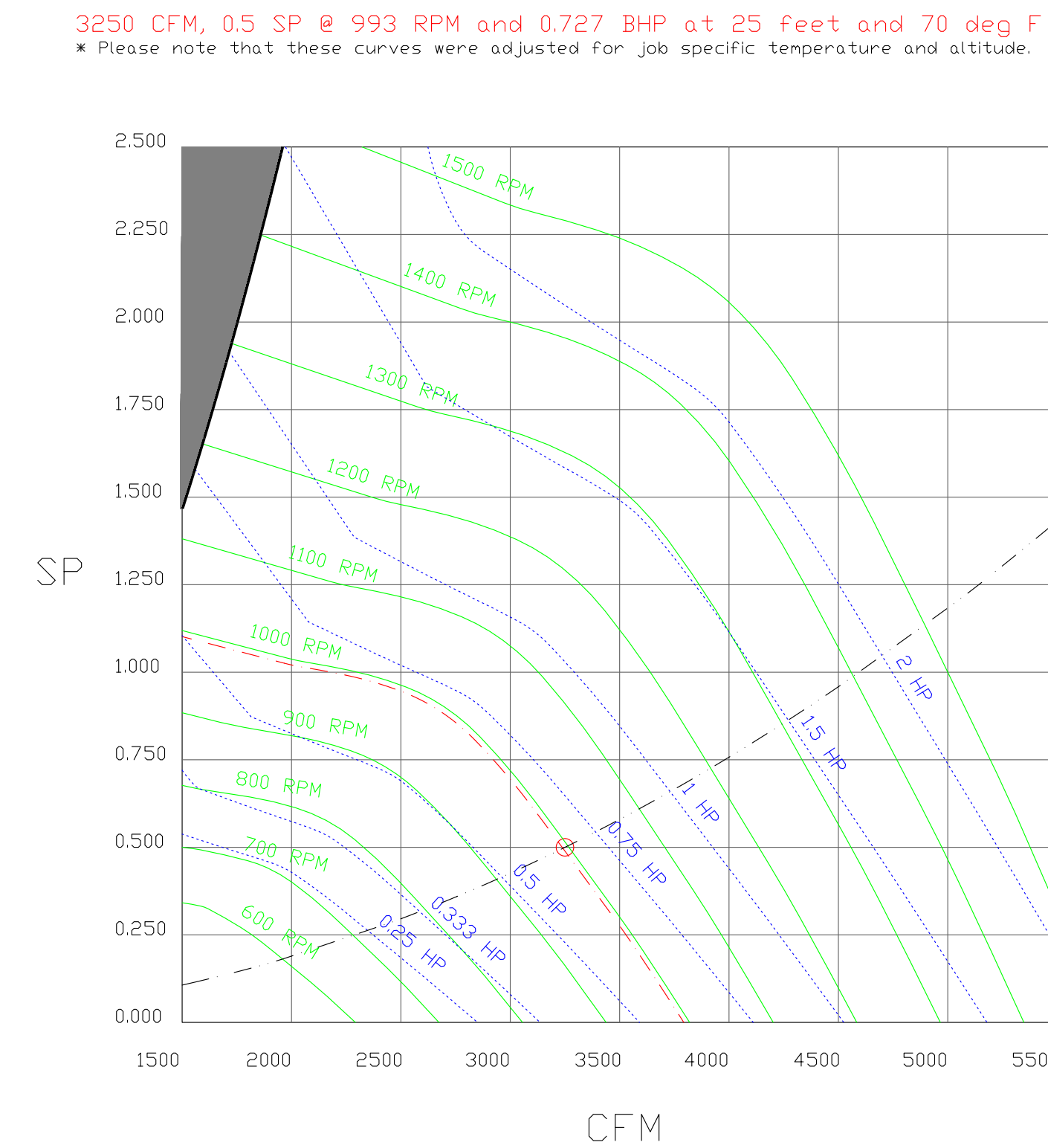
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX
- FULL CRATING FOR EXHAUST FANS
- FAN BASE CERAMIC SEAL - FOR GREASE DUCTS



FANS #1 (FRONT LEFT) #2 (FRONT RIGHT) #3 (BACK) - EXHAUST PERFORMANCE CURVES.



REVISIONS

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Fork Food Lab r4 - 3-13ft
PORTLAND, ME, 04101

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DWG.#: 2642631

DRAWN BY: BFC-21

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

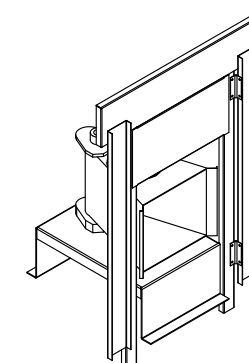
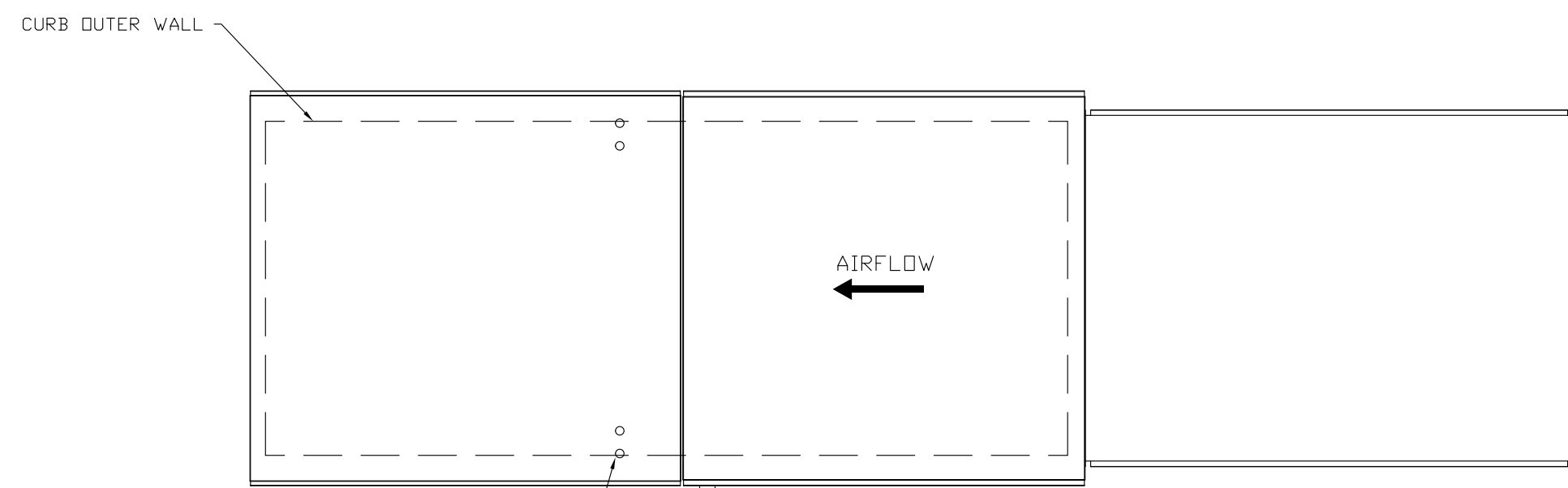
MASTER DRAWING

SHEET NO.
5

- FAN #4 A3-D750-G18 - HEATER
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 18" BLOWER AND 18" BURNER.
 2. INTAKE HOOD WITH EZ FILTERS
 3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT
 4. COOLING INTERLOCK RELAY, 24VAC COIL, 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.
 5. MOTORIZED BACK DRAFT DAMPER 30" X 30" FIBER SIZE 3 STANDARD & MODULAR DIRECT FIRED HEATERS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, NF8UP-S ACTUATOR INCLUDED
 6. FULL CRATING FOR COMMERCIAL HEATERS FOR SHIPPING.
 7. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
 8. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE
 9. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 41°. TEMP. RISE = 71°F.
 BTUS CALCULATED OFF STANDARD AIR DENSITY
 OUTPUT BTUS AT ALTITUDE OF 0.0 Ft. = 540594
 INPUT BTUS AT ALTITUDE OF 0.0 Ft. = 587602



Direct Fired (DF) Profile Plate Assembly

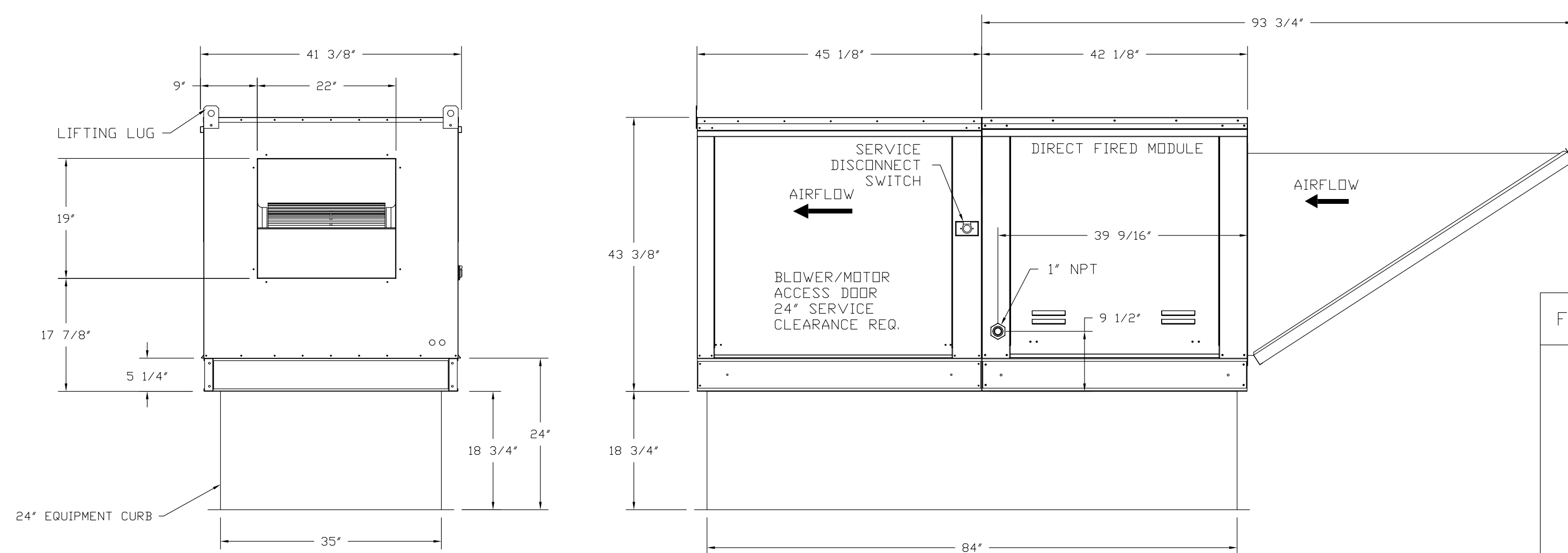
Direct Fired Profile Plate Specifications:

Description:
 Direct fired burners shall have patented (US Patent No. US6629523B2), self-adjusting profile plates designed to ensure proper air velocity and pressure drop across the burner. Profile plates shall allow burners to achieve clean combustion by limiting by-product levels to a maximum of 5ppm of carbon monoxide (CO), and 0.5ppm of nitrogen dioxide (NO2).

Application:
 Spring-loaded burner profile plates are engineered to automatically react to the momentum of a fresh air stream, without the need for any motors or actuators to mechanically adjust them. With this feature, all DF units are designed for demand control ventilation (DCV) requirements.

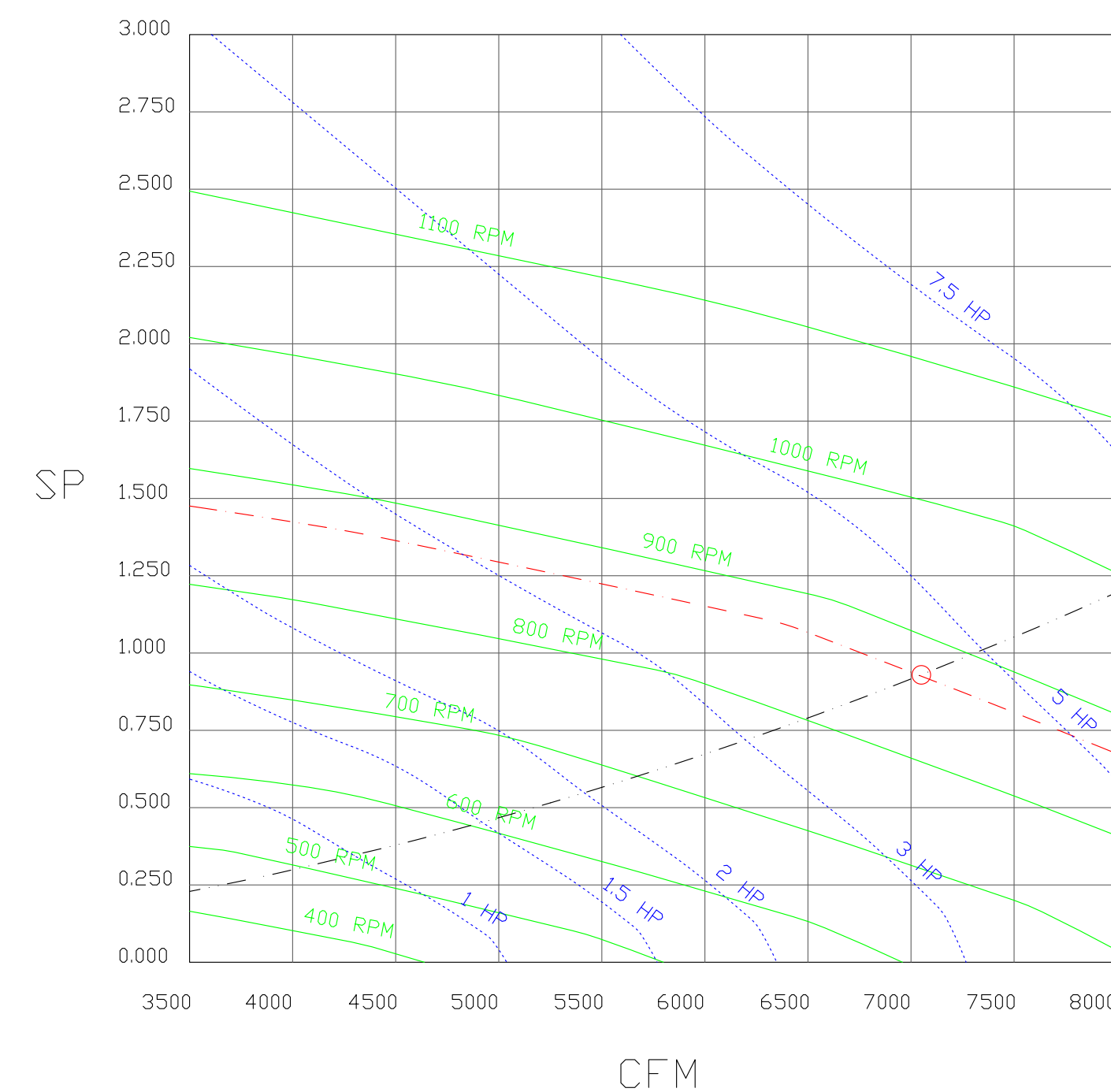
Certifications:
 All profile plate assemblies shall be included in the DF unit's ETL listing and comply with combined safety standards ANSI Z83.4 and CSA 3.7 (non-recirculating DF heaters) and ANSI Z83.18 (recirculating DF heaters).

General Construction:
 -Profile plates shall be formed from G90 galvanized steel.
 -Profile plates shall vary in size per unit.
 -Profile plates shall be mounted along the same plane as the discharge of the burner.
 -Design shall incorporate properly torqued, permanently mounted spring hinges.
 -Spring hinges shall be made from plated steel.



FAN#4 - HEATER PERFORMANCE CURVES.

7050 CFM, 0.929 SP @ 869 RPM and 4.371 BHP at 25 feet and 75 deg F
 * Please note that these curves were adjusted for job specific temperature and altitude.



REVISIONS

DESCRIPTION	DATE



Fork Food Lab r4 - 3-13ft
 PORTLAND, ME, 04101

DATE: 4/29/2016

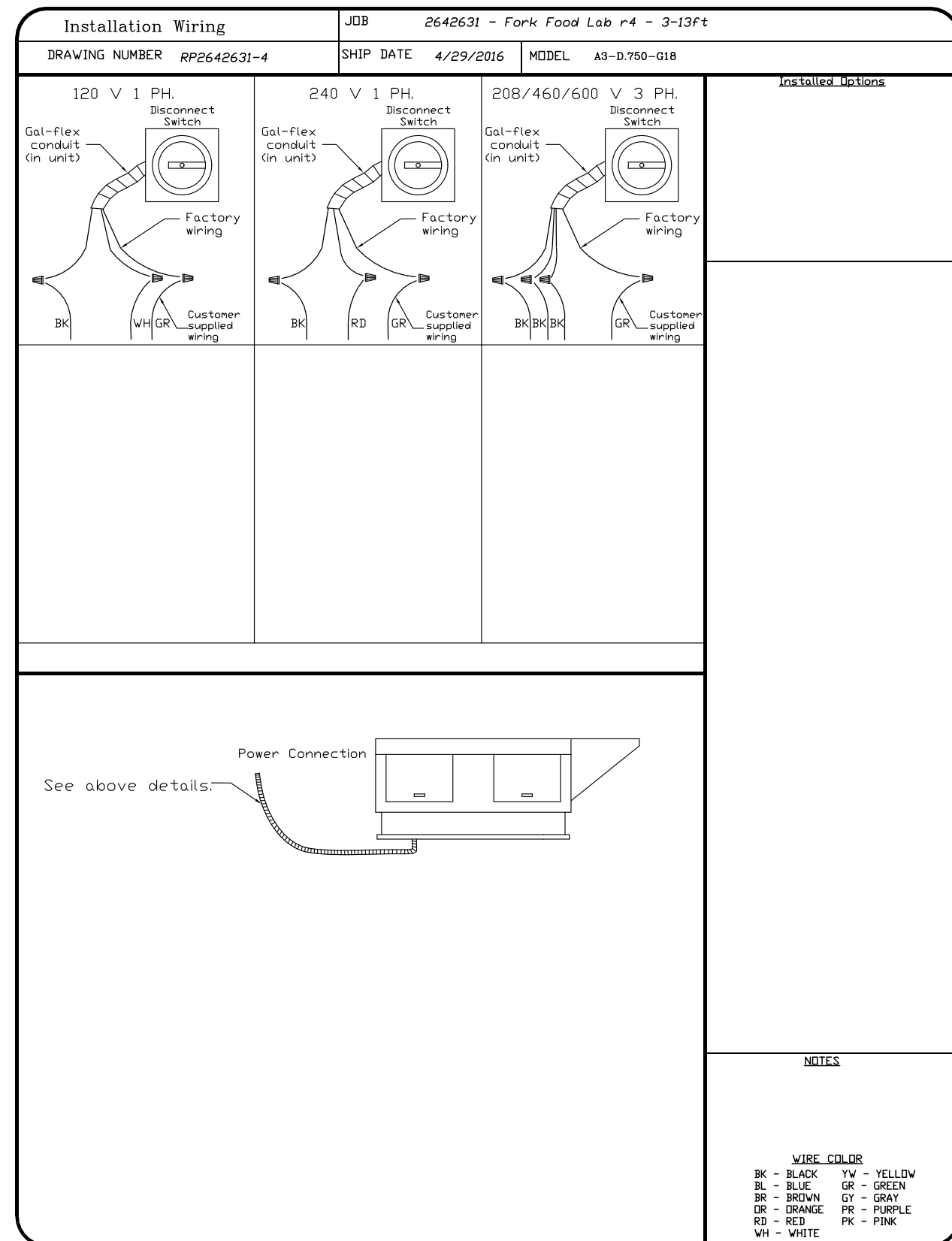
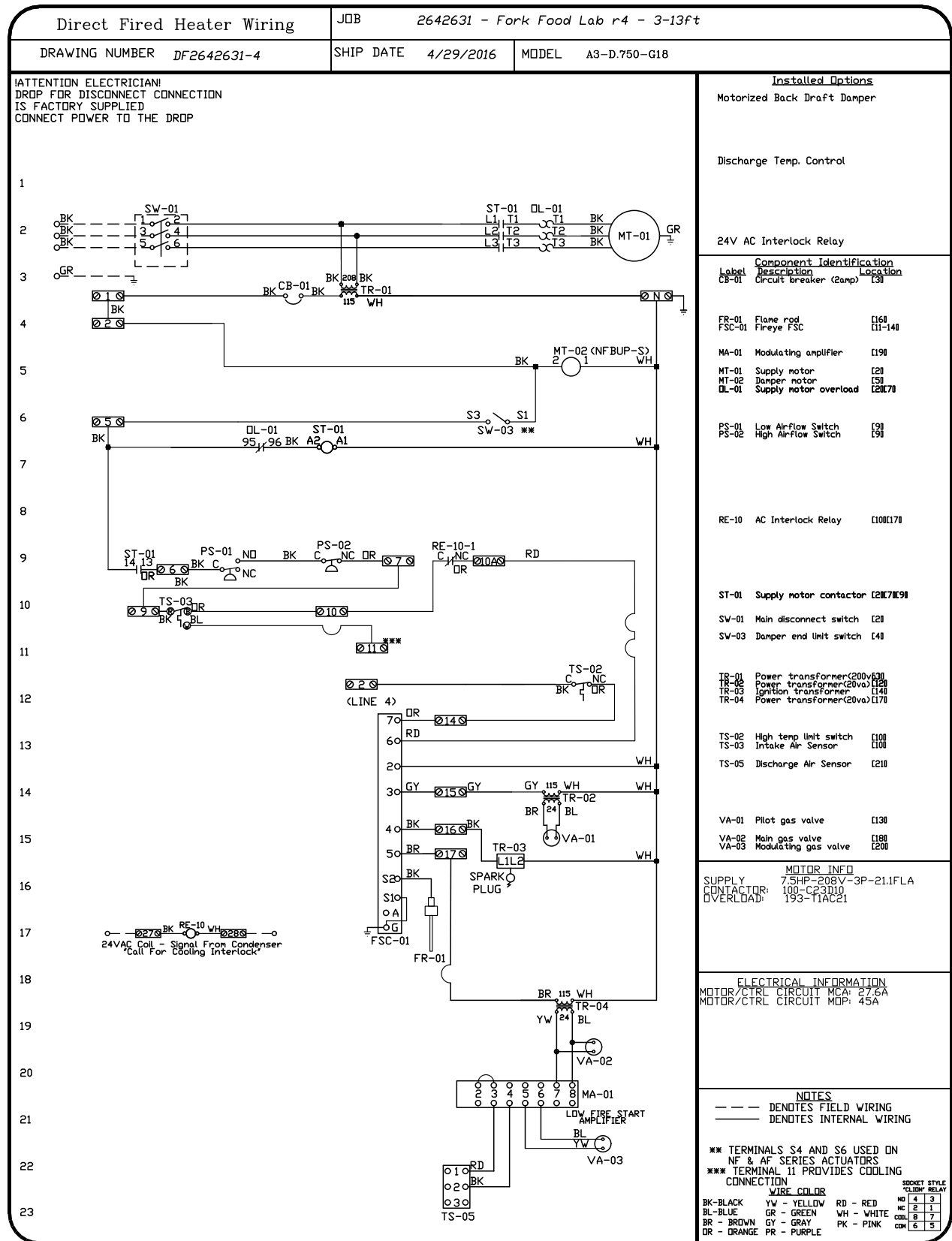
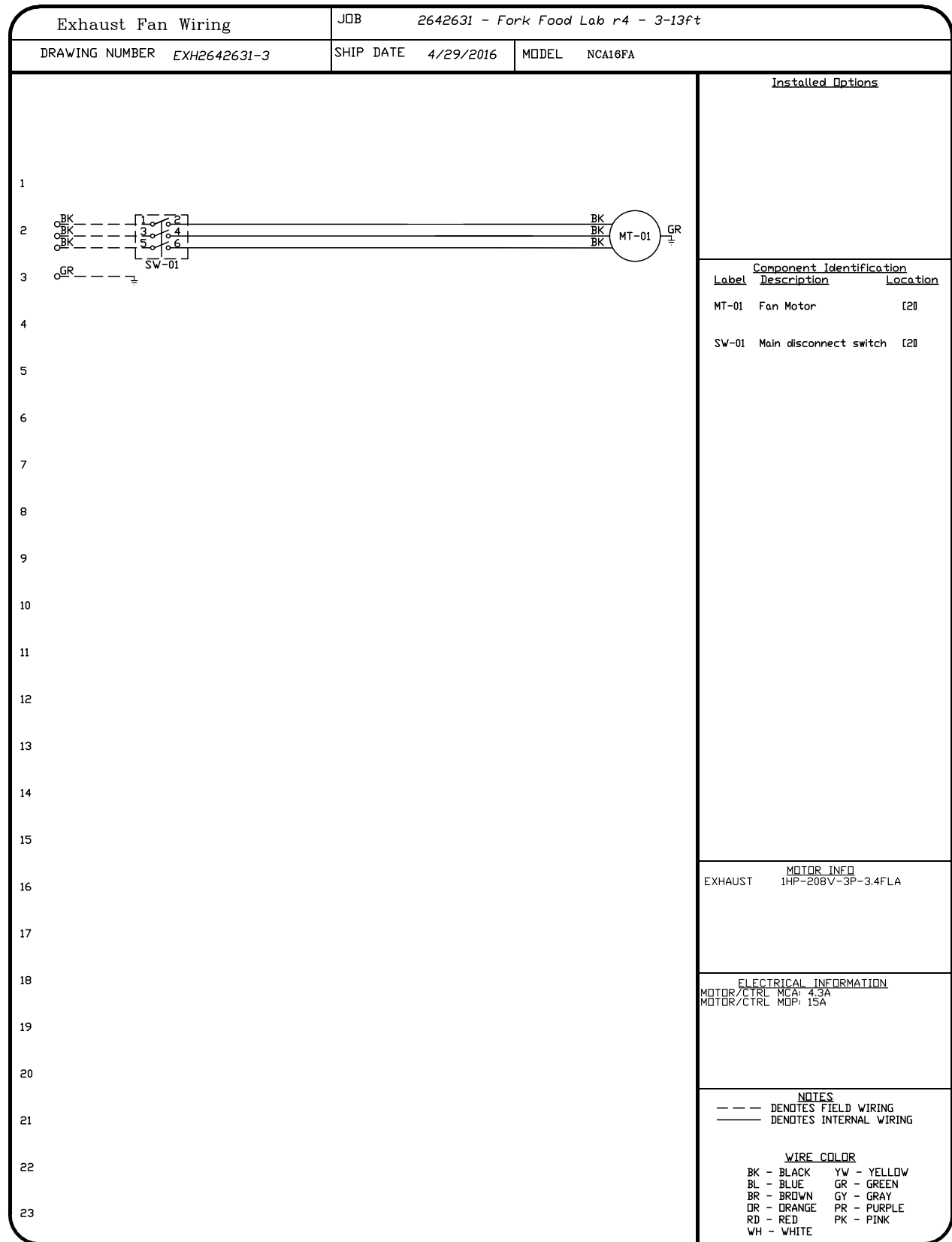
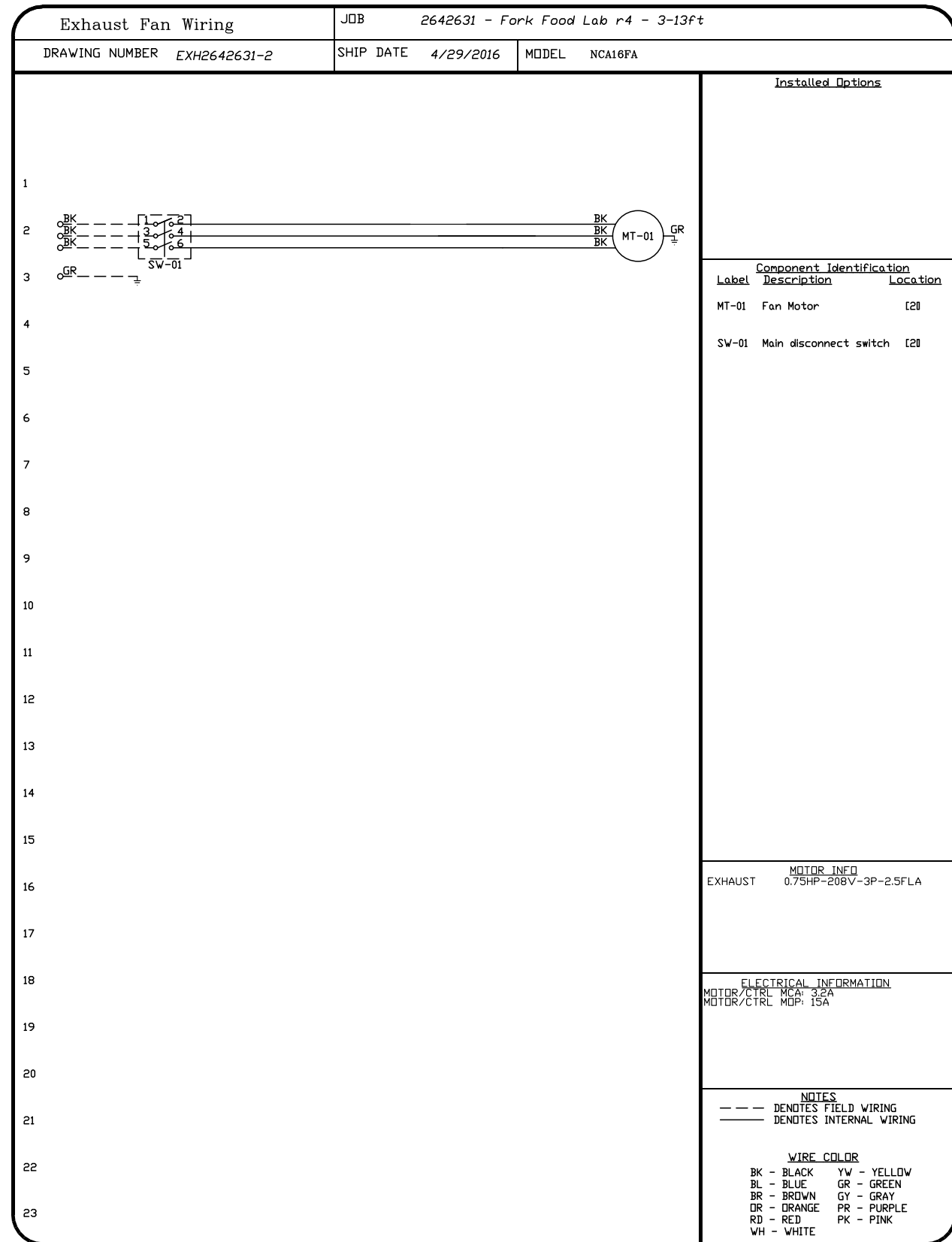
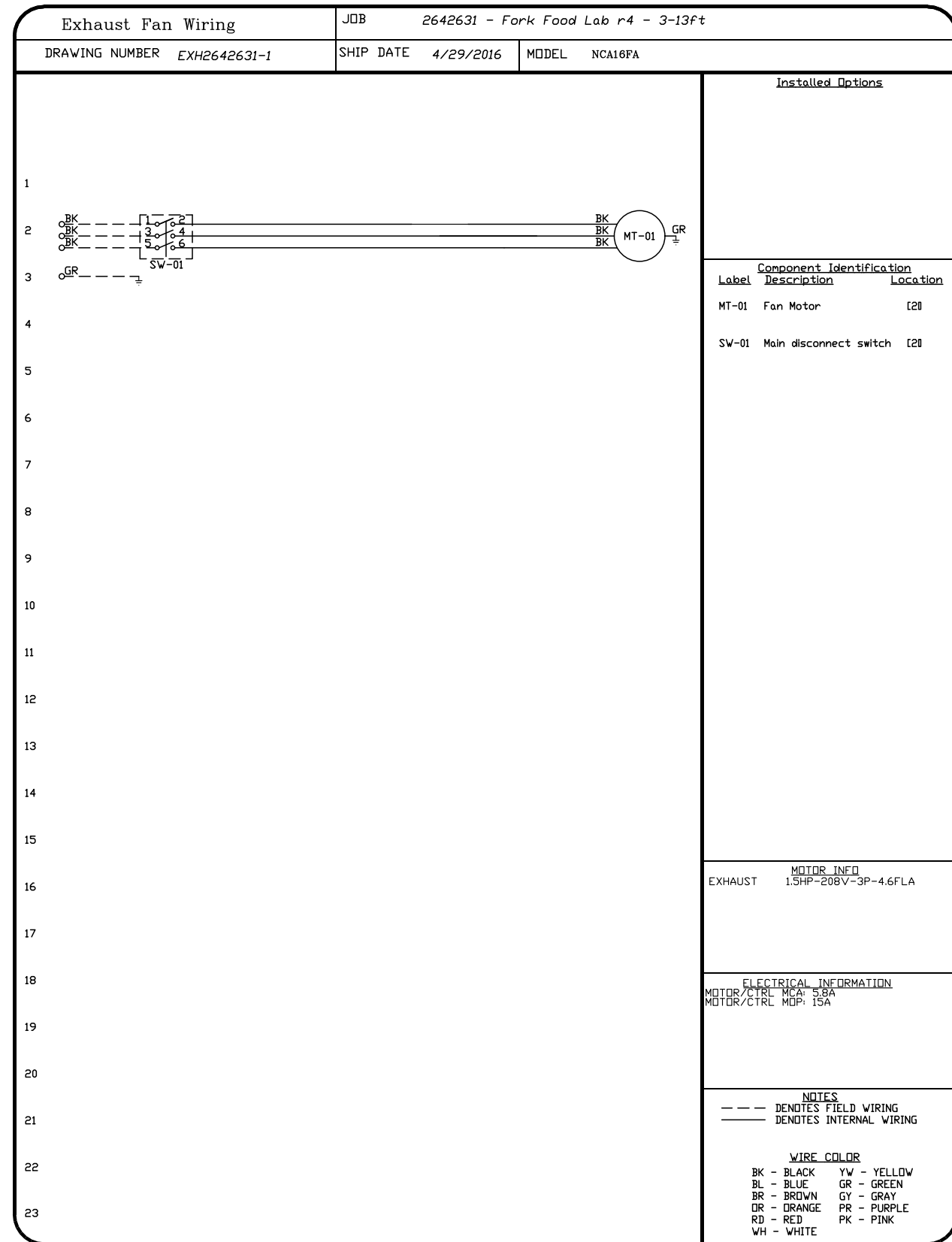
DWG.#:
2642631

DRAWN BY: BFC-21

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

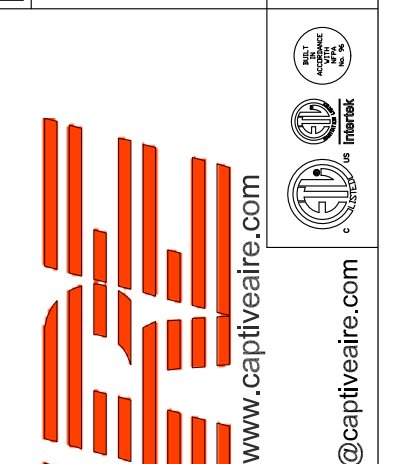
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Fork Food Lab r4 - 3-13ft
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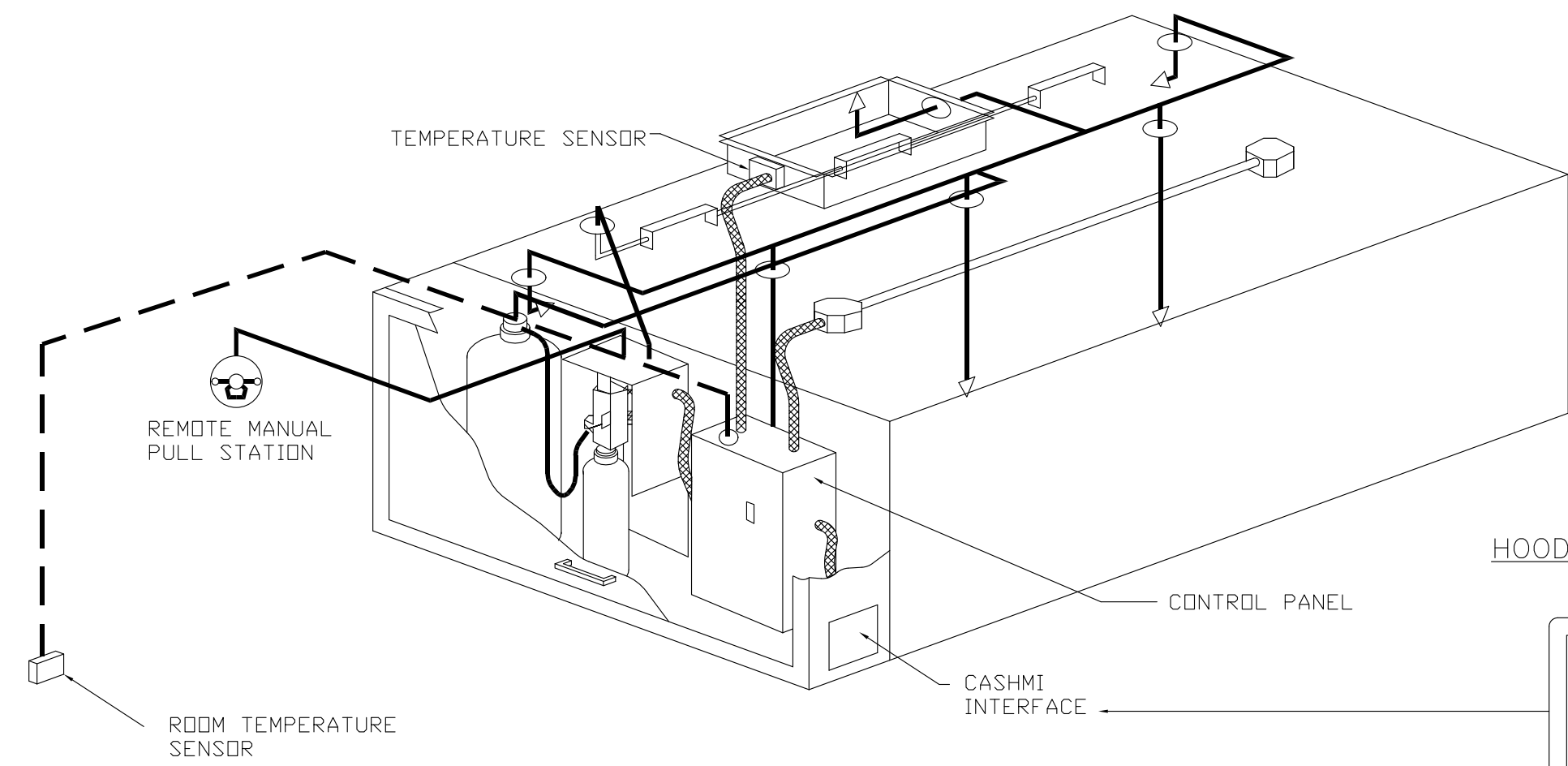
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PO Box 86, 179 South Rd., Topsfield, ME, 04490 PHONE: (207) 796-2590 FAX: (919) 227-5946 EMAIL: rsg21@captiveaire.com

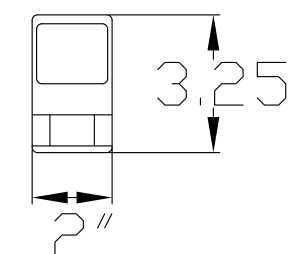
ELECTRICAL PACKAGES - Job#2642631

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLT	FLA	
1		SC-33110FP	Utility Cabinet Right	Utility Cabinet Right	1 Light	Smart Controls Thermostatic Control	FRONT LEFT	Exhaust	3	1,500	208	4.6
				Hood # 3	1 Fan		FRONT RIGHT	Exhaust	3	0,750	208	2.5
							BACK	Exhaust	3	1,000	208	3.4
								Supply	3	7,500	208	21.1



TYPICAL CONTROL CENTER INSTALLATION

Room Override Thermostat



Provides room override based on temperature differential between the room and duct. Installed by electrician on a wall, 5'-6" off the finished floor, in the space but not directly under the hood or close to an appliance (including the electrical control box) so the reading is accurate for space.

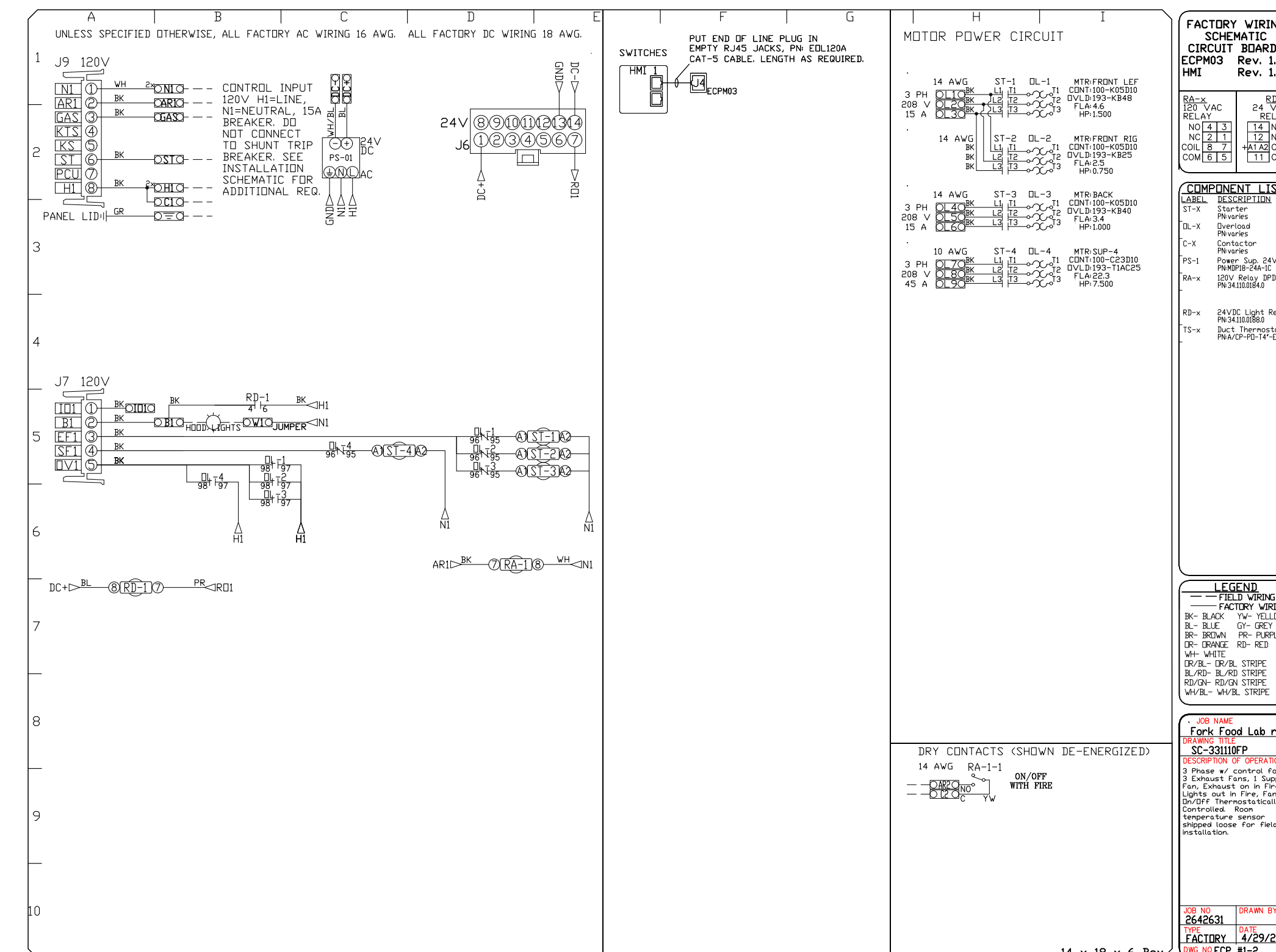
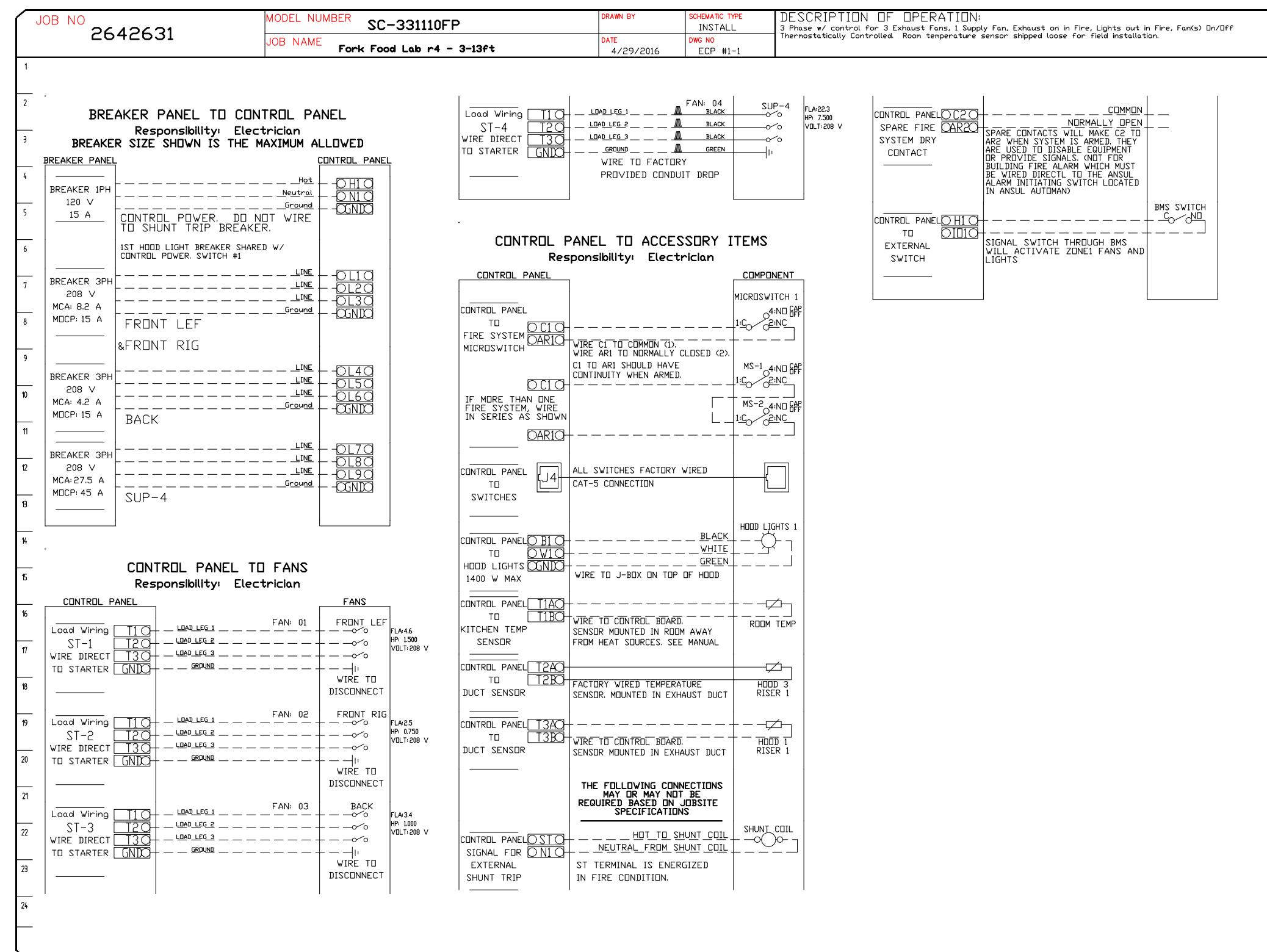
Duct Temp Sensor to be installed in every exhaust riser. All Duct Temp Sensors and Hood Lights to be wired back to SC-EMS Electrical Control Box.

**** PLEASE NOTE ****
IT IS THE RESPONSIBILITY OF THE EC TO MAKE ALL FIELD CONNECTIONS INTO AND OUT OF THE CAPTIVEAIRE CONTROL PANEL INCLUDING BUT NOT LIMITED TO LOW VOLTAGE, 24V WIRES TO ALL TEMP SENSORS, INCLUDING THE ROOM TEMP SENSOR, MOTOR LINE VOLTAGE POWER FEEDS, AND CONTROL WIRING. REFER TO WIRING SCHEMATICS ON THIS PAGE AND POSTED INSIDE OF THE CONTROL CABINET

MEETS AUTOMATIC ACTIVATION REQUIREMENTS

IMC 507.2.1.1 TYPE I HOOD SYSTEMS SHALL BE DESIGNED AND INSTALLED TO AUTOMATICALLY ACTIVATE THE EXHAUST AN WHENEVER COOKING OPERATIONS OCCUR. THE ACTIVATION OF THE EXHAUST FAN SHALL OCCUR THROUGH AN INTERLOCK WITH THE COOKING APPLIANCES, BY MEANS OF HEAT SENSORS, OR BY MEANS OF OTHER APPROVED METHODS.

NFPA96 8.2.3.3 THE EXHAUST FAN SHALL BE PROVIDED WITH A MEANS SO THAT THE FAN IS ACTIVATED WHEN ANY APPLIANCE UNDER THE HOOD IS TURNED ON.



REVISIONS

NO.	DESCRIPTION	DATE
1		
2		
3		
4		

CAPTIVEAIRE

www.captiveaire.com

MAINE OFFICE

PO Box 86, 179 South Rd., Topsham, ME, 04490 PHONE: (207) 796-2500 FAX: (919) 227-5946 EMAIL: reg1@captiveaire.com

Fork Food Lab r4 - 3-13ft

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DWG.#: 2642631

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

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SHEET NO. 8

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.

REVISIONS

DESCRIPTION	DATE
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