

GOVERNMENT OF THE DISTRICT OF
COLUMBIA DEPARTMENT OF GENERAL
SERVICES



INVITATION FOR BID (IFB)

CONSTRUCTION SERVICES FOR ENGINE HOUSE NO. 2 RENOVATIONS AND
UPGRADES

Solicitation Number: DCAM-19-CS-IFB-0005

Addendum No. 3

Issued: June 21, 2019

This Addendum No. 3 is being issued and is effective as of the date shown above. Except as modified hereby, the Invitation for Bid (IFB) remains unmodified.

Item #1: Questions & Answers: Questions and Answers Spreadsheet is hereby attached as (**Exhibit 1**).

Item #2: Bid Due Date: The Bid Due Date is hereby extended from June 27, 2019 at 2:00 p.m. to July 2, 2019 at 10:00 a.m.

Item #3: Bid Opening: The Bid Opening date is hereby changed as follows:

Bid Opening: July 2, 2019 at 11:00 a.m.
Capitol Hill Conference Room
1250 U Street, NW, 4th Floor | Washington, DC 20009

Item #4: Captive Aire Hood and Kitchen Exhaust & Make up Air Plan: The updated Design detail for Captive Aire Hood (**Exhibit 2**) as per revision dated June 13, 2019, and Kitchen Exhaust & Make up Air Plan (**Exhibit 3**) as per revision dated June 11, 2019 are attached.

By: 
Franklin Austin, CPPB, CPM
Contracting Officer

Date: 

- End of Addendum No. 3

EXHIBIT 1

QUESTIONS & ANSWERS SPREADSHEET

[EXHIBIT WILL APPEAR ON THE FOLLOWING PAGE]

INVITATION FOR BIDS (“IFB”)

QUESTIONS & ANSWERS SPREADSHEETS

CONSTRUCTION SERVICES FOR ENGINE HOUSE NO. 2 RENOVATIONS AND UPGRADES

Solicitation Number: DCAM-19-CS-IFB-0005

No.	Questions	Department Responses
1	Is that site visit a requirement for bid submission?	No.
2	Two ceiling fans are noted in the living-dining room during the site visit. The ceiling fans are not listed in the Standard Work Requirements and the Specific Room Requirements. Please confirm that we should removal and disposal of two ceiling fans in our bid.	No, the fans will remain in place; cover and conceal with plastic during construction in order to maintain functionality post renovation.
3	There are various wall hung items that may need to be removed and reinstalled prior to painting the walls. Please confirm that the 50k allowance will be used to remove and reinstall existing wall-hung items.	Yes, confirmed.
4	Per the SRR section, the living-dining room is calling for new ceiling grid and tiles. The existing ceiling in this room has two ceiling types: acoustical ceiling and drywall ceiling/soffit. Please confirm if we should include the replacement of acoustical ceiling with new acoustical ceiling and provide painting for existing drywall ceiling/soffit in our bid.	Please see updated J1 in Addendum #2/SRR Existing Kitchen which further clarifies questions of ceiling treatment.

5	Please reference Dwg. K-3 (Electrical Connection Plan). The extent of electrical work as far as demo is unclear. For instance, the items that are listed as existing (ie, microwave oven, water dispenser, etc.) in the schedule appear to show a new receptacle as per the connection plan. Please confirm that we should include removal of existing receptacles and provide new receptacles as per the plan and schedule.	Confirmed.
6	In Addendum No. 2 the drawings in Exhibits 2 and 3 are too blurry to read. Please resubmit the drawings.	Please see attached.
7	A CBE commercial drywall/acoustical contractor and interested in expanding into more general contracting. Have worked on dozens of DGS projects, mostly schools and libraries, over the last eight years or so as a subcontractor. Wanted to find out if there is anything we should do ahead of time (i.e., is there some sort of prequalification process?). We are confident that we have the capability to do this type of work, but are just not familiar with the procedures.	See DGS RFP contractor requirements.
8	Per para. L under Standard Work Requirements in Attachment J.1, one trash can and one recycling can should be provided in each room: Kitchen, Sitting/Dining/ and Lockers. Please confirm on the following items: - Make/model number for each item as a basis of design product. - It is assumed that only the Locker Rooms will not receive a trash can and a recycling can because the locker rooms are not listed under the Specific Room Requirements section.	ULINE 55- GAL TRASH CANS H-3689 IN BLACK WITH LIDS. https://www.uline.com/BL_50/Uline-Trash-Cans AND ULINE 55- GAL RECYCLE CANS H-5153 IN BLUE WITH LIDS. https://www.uline.com/BL_8795/Brute-Recycling-Containers?keywords=Recycle+Trash+Cans

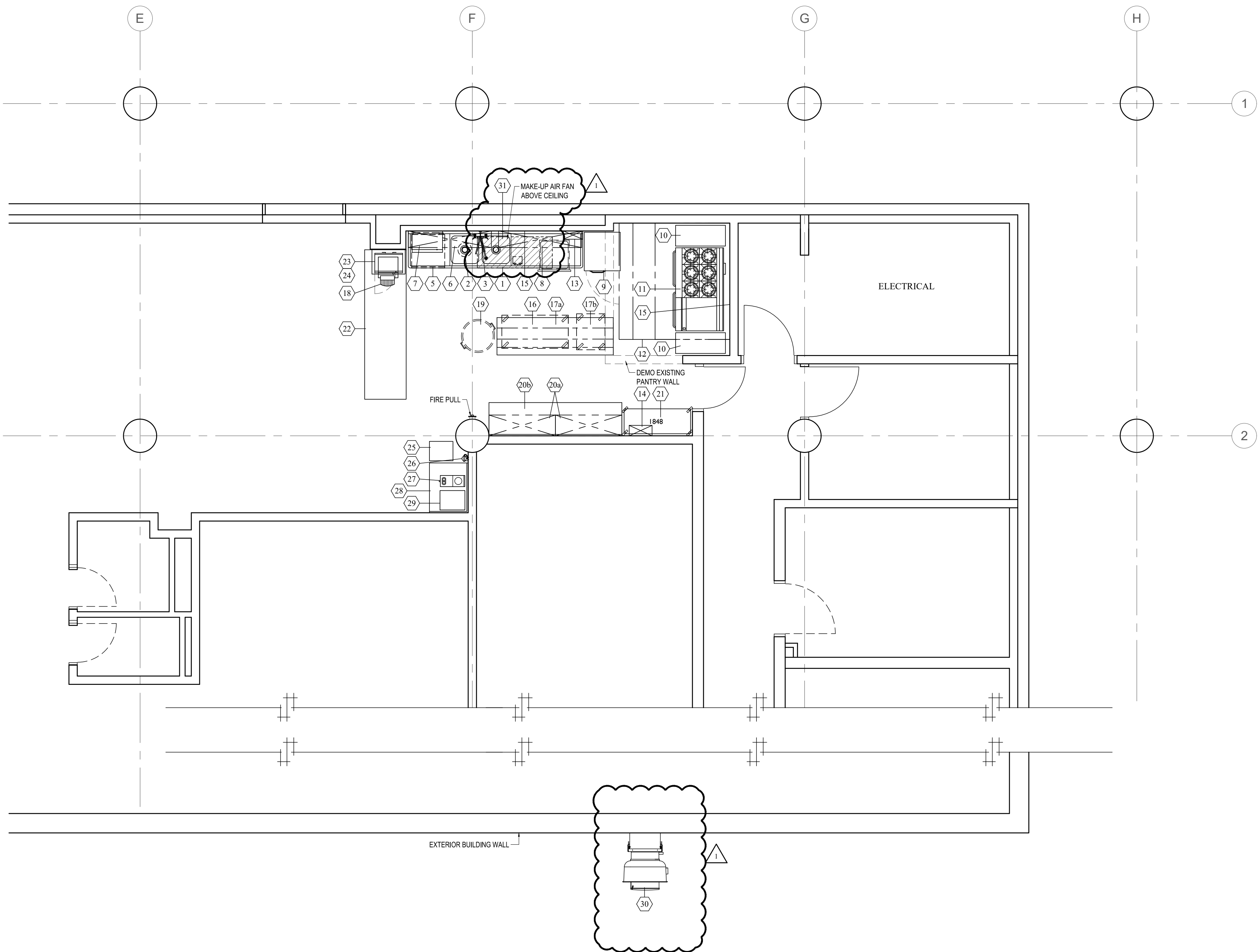
9	Please confirm if the building has been tested for asbestos and lead containing materials in the areas disturbed by demo or new work. If yes, please provide survey or report.	Yes, we can confirm the building has been abated for asbestos and lead containing materials; however, we do not have access to completed survey or report.
10	Please confirm that we should include fire-rated wood blocking for any wall-hung items that are listed in the equipment schedule.	All walls with wall-hung items are CMU.
11	Per the Equipment Schedule on Dwg. K-1, 3 wall shelves are scheduled. The submittal sheet for this item on page 38 (Attach. J) indicates 2 ea. Please confirm which quantity should be used in the bid.	Three (3).
12	Per Attach. J, pgs 60-61, and Keynote #14 on Dwg. K-1 both call for a new fire suppression system. Please confirm if this is a Alto-Hartley product. If no, please provide additional information for pricing.	Please see Addendum 2, updated Captive Air drawings. System currently specified as an Ansul R102 to be provided and installed by Captive Air. Confirming that this is specified and provided to the Alto-Hartley quote; Captive air will provide and install.
13	Two sets of prevailing wage determination are provided. Please confirm that we should follow DC190002 dated 5/10/19 for this bid.	Confirmed.
14	Per Attachment J.1 under Commercial Kitchen Drawings and Specifications, four above-refrigerator cabinets (Eagle Group WCH-30) are required, but not shown in any drawings. Please confirm if we should include them in the bid.	Confirmed. Installation should occur above 4 shift refrigerators in adjacent room.

15	Per Attachment J.1 under Non-Commercial Grade Appliances and Contact Information, Item #1 call for (4) shift refrigerators, (1) washer machine, and (1) dryer. These are not shown on any of the drawings or indicated in the Specific Room Requirements (SSR). Please confirm on the following items: a. The appliances in question should be included in our bid. b. Please identify the locations where the appliances will be installed. c. Is plumbing connection for the ice maker required? d. A new washer box is required.	A) Confirmed. B) In adjacent room, to replace 4 existing refrigerators. C) No, existing to remain. D) Yes, new wash box and shut-off valves are required per the RFP.
16	Please provide contact information (ie, phone number, email address) of the service company that maintains the existing HVAC system at the building.	Please see Addendum 2, J.1.5 for contact info of Mechanical Service Company: RG Mechanical LLC, Jerry Cifarelli, 410-215-1926, email: RGMECHANICALLLC@gmail.com
17	Please provide specification or make/model as a basis of design for the HVAC diffusers and registers.	See addendum 2, J.1.5 for make/model HVAC.
18	Per para. 2 of the Specific Room Requirements, existing kitchen equipment should be salvaged and delivered to FEMS DC Warehouse. Please provide the address of this location	Deliver to 3180 V Street, NE, D.C.

EXHIBIT 2

UPDATED DESIGN DETAIL FOR CAPTIVE AIRE HOOD

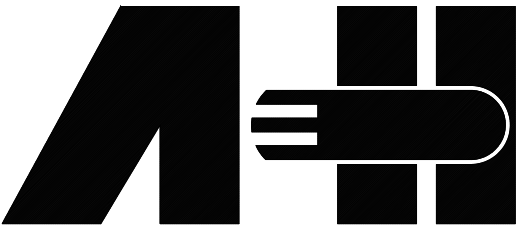
[EXHIBIT WILL APPEAR ON THE FOLLOWING PAGE]



1 EQUIPMENT PLAN - KITCHEN
SCALE: 1/4"=1'-0"

EQUIPMENT SCHEDULE			
NO	QTY	DESCRIPTION	REMARKS
1	1	WORK TABLE WITH SINKS	
2	1	DISPOSER	
3	1	PRE-RINSE SPRAY W/ ADD-ON FAUCET	
4	-	SPARE NUMBER	
5	1	UNDERCOUNTER DISHWASHER	
6	1	WALL SHELF W/ POT RACK	EXISTING TO REMAIN
7	1	SLANTED RACK SHELF	
8	3	WALL SHELF	
9	1	REACH-IN REFRIGERATOR	
10	2	WORK TABLE - MOBILE	
11	1	6-BURNER RANGE W/ GRIDDLE, BROILER & OVENS	
12	1	EXHAUST HOOD	
13	1	EXHAUST HOOD CONTROL PANEL	
14	1	FIRE SUPPRESSION SYSTEM	
15	LOT	STAINLESS STEEL WALL PANELS	
16	1	WORK TABLE, OPEN BASE W/ OVERSHELVES & POT RACK	
17a	1	MOBILE WORK TOP PAN RACK - 48" X 24"	
17b	1	MOBILE WORK TOP PAN RACK - 20.5" X 26"	
18	1	TOASTER	EXISTING, RELOCATED
19	1	TRASH CAN	EXISTING, RELOCATED
20a	1	WORK COUNTER W/ LOCKABLE STORAGE BELOW	
20b	2	WALL CABINET - LOCKABLE	
21	1	STORAGE SHELIVING	
22	1	S/S COUNTER W/ UNDERSHELF, FRONT & SIDE APRONS	
23	1	MICROWAVE OVEN	EXISTING, TO REMAIN
24	1	MICROWAVE SHELF	EXISTING, TO REMAIN
25	1	WATER DISPENSER	EXISTING, RELOCATED
26	1	WATER FILTER	
27	1	COFFEE MAKER	EXISTING, RELOCATED
28	1	S/S TABLE W/ INDERSHELF	
29	1	CREAM DISPENSER	EXISTING, RELOCATED
30	1	KITCHEN EXHAUST FAN	WALL MOUNTED
31	1	KITCHEN MAKE-UP AIR FAN	GAS FIRED

REVISIONS:		
1	06/12/2019	ADDED EXHAUST & MUA FAN & DUCT ROUTING



ALTO - HARTLEY, INC.
4601-A EISENHOWER AVE.
ALEXANDRIA, VA 22304
(703) 883-1448

PROJECT:

ENGINE HOUSE 2
500 F St. NW
Washington, DC

DRAWN BY: CHECKED BY:

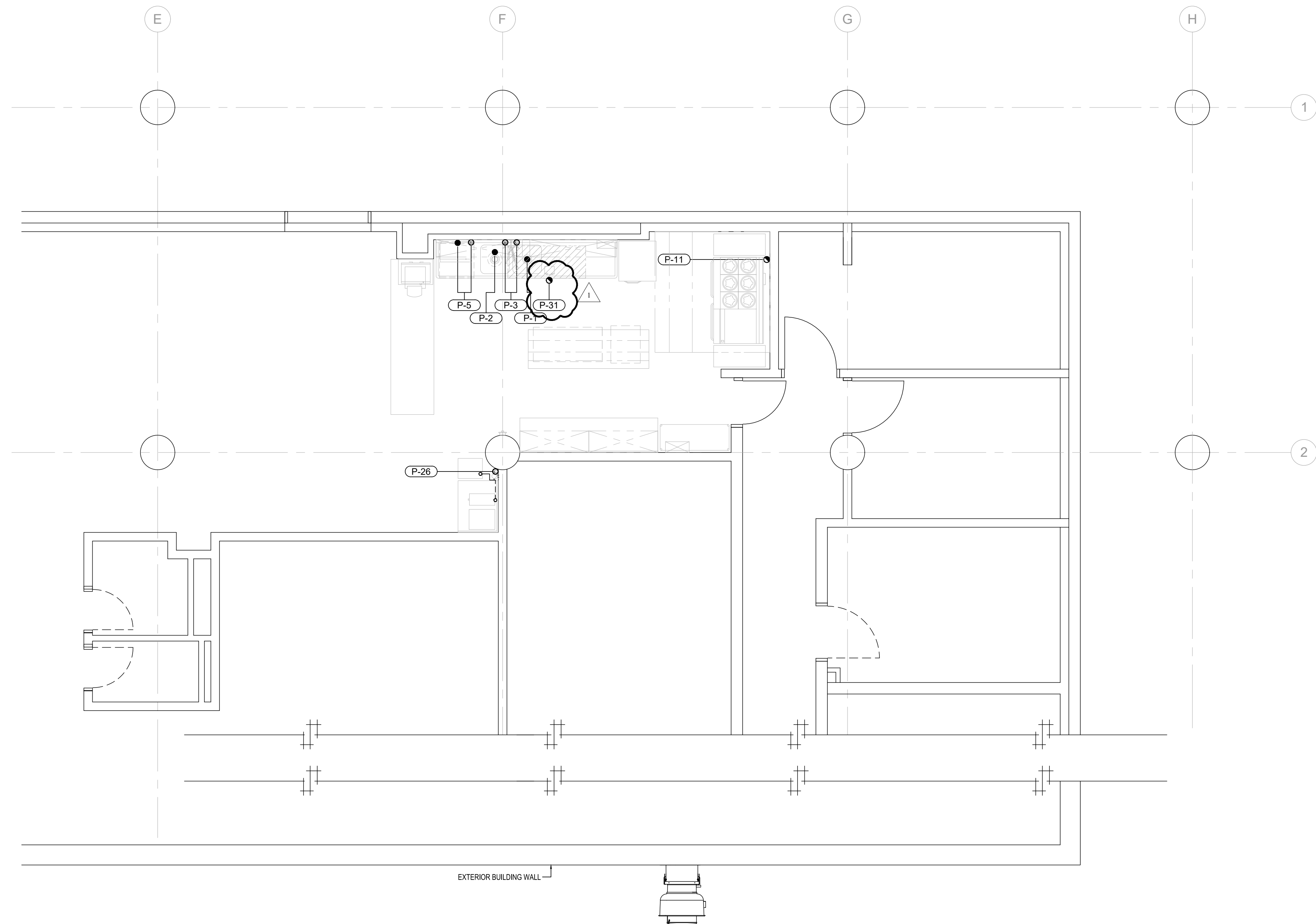
SHEET TITLE:

**FOOD SERVICE
EQUIPMENT
PLAN &
SCHEDULE**

DATE: 07/16/2018 SHEET NO.: **K-1**

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

JOB NO.:



LEGEND - PLUMBING CONNECTIONS

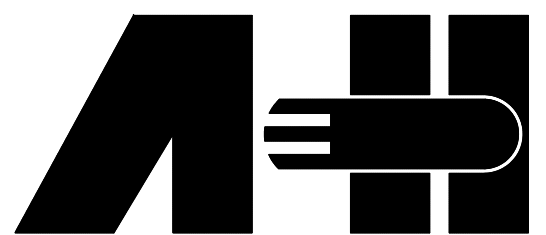
- HW-HOT WATER, OR CW-COLD WATER
- GAS
- DIRECT WASTE
- FLOOR DRAIN (FD)
- FUNNEL TYPE FLOOR DRAIN (FFD)
- FLOOR SINK (FS)
- CONNECTION ON EQUIPMENT
- FIELD CONNECTIONS
- P.C. PLUMBING CONTRACTOR
- FCW FILTERED COLD WATER
- CWS CONDENSER WATER SUPPLY
- CWR CONDENSER WATER RETURN

PLUMBING CONNECTION SCHEDULE

ITEM	QTY.	DESCRIPTION	DRAIN	I.W.	W	HGT.	CW	HW	HGT.	GAS CONN.	MBTU	HGT.	REMARKS
1	1	2-COMPARTMENT SINK	DIR	-	1-1/2"	*	-	-	-	-	-	-	* CONNECT TO EXISTING DRAIN
2	1	DISPOSER	DIR	-	1-1/2"	*	1/2"	-	-	-	-	-	* CONNECT TO EXISTING DRAIN & WATER SUPPLY
3	1	PRE-RINSE SPRAY W/ ADD-ON FAUCET	-	-	-	-	1/2"	1/2"	*	-	-	-	* CONNECT TO HOT & COLD WATER SUPPLY. TEE CW & CONNECT TO DISPOSER INLET VIA SOLENOID VALVE & VACUUM BREAKER.
5	1	UNDERCOUNTER DISHWASHER	DIR	-	1-3/8"	*	-	1/2"	-	-	-	-	* PROVIDE 3/4" GARDEN HOSE CONNECTION. CONNECT TO EXISTING DRAIN & WATER SUPPLY
11	1	6-BURNER RANGE W/ GRIDDLE, BROILER & OVENS	-	-	-	-	-	-	-	3/4"	304	18"	WITH FLEXIBLE GAS LINE WITH QUICK DISCONNECT
25	1	WATER DISPENSER	-	-	-	-	3/8"	-	*	-	-	-	* CW FROM WATER FILTER - EXISTING, VERIFY ALL REQUIREMENTS
26	1	WATER FILTER	-	-	-	-	1/2"	-	*	-	-	-	EXTEND FILTERED CW TO WATER DISPENSER & COFFEE MAKER
27	1	COFFEE MAKER	-	-	-	-	1/4"	-	*	-	-	-	* CW FROM WATER FILTER - EXISTING, VERIFY ALL REQUIREMENTS
31	1	MAKE-UP AIR FAN - GAS FIRED	-	-	-	-	-	-	-	1/2"	79.3	ABOVE CLG	ABOVE CEILING IN KITCHEN

REVISIONS:

1	06/12/2019	ADDED EXHAUST & MUA FAN & DUCT ROUTING
---	------------	--



ALTO - HARTLEY, INC.
4601-A EISENHOWER AVE.
ALEXANDRIA, VA 22304
(703) 883-1448

PROJECT:

ENGINE HOUSE 2
500 F St. NW
Washington, DC

DRAWN BY:

CHECKED BY:

SHEET TITLE:

PLUMBING
CONNECTION
PLAN

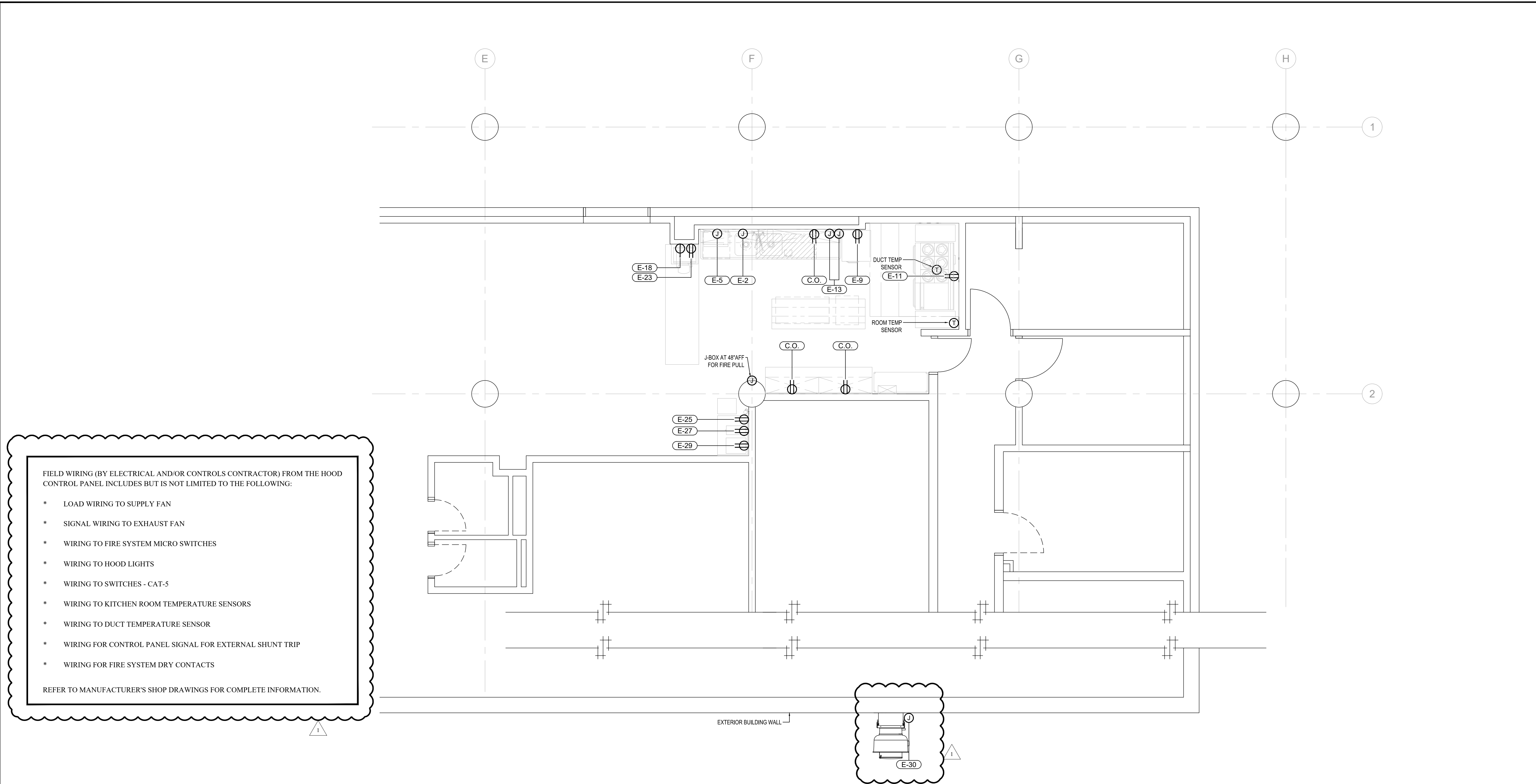
DATE:
07/16/2018

SHEET NO.:

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

JOB NO.:

K-2



1 ELECTRICAL CONNECTION PLAN
SCALE: 1/4"=1'-0"

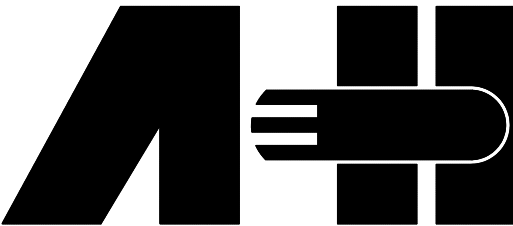
LEGEND - ELECTRICAL CONNECTIONS

- DUPLEX RECEPTACLE
- SINGLE RECEPTACLE
- JUNCTION BOX
- ELECTRICAL STUB OUT
- FIELD WIRING
- CONNECTION POINT ON EQUIPMENT
- DATA JACK

ELECTRICAL CONNECTION SCHEDULE

ITEM	QTY.	DESCRIPTION	CONN.	VOLT	PH.	AMPS	HP	KW	PLUG TYPE	HGT.	REMARKS
2	1	DISPOSER	DIR	120	1	11.6	1	-	-	24"	CONNECT TO DISPOSER SOLENOID VALVE & CONTROL
5	1	UNDERCOUNTER DISHWASHER	DIR	208	1	37.2	1	-	-	12"	VERIFY AVAILABLE ELECTRIC
9	1	REACH-IN REFRIGERATOR	DR	120	1	5.5	1/4	-	5-15P	84"	-
11	1	6-BURNER RANGE W/ GRIDDLE, BROILER & OVENS	DR	120	1	3.4	-	-	5-15P	24"	-
12	1	EXHAUST HOOD	JB	120	1	-	-	-	-	DFA	* FROM EXHAUST HOOD CONTROL PANEL
13	1	EXHAUST HOOD CONTROL PANEL	JB	120	1	15.0	-	-	-	DFA	FOR CONTROLS & LIGHTS - DO NOT WIRE TO SHUNT TRIP
			JB	120	1	17.3	-	-	-	DFA	FOR SUPPLY FAN - 25 AMP MOCB
18	1	TOASTER - EXISTING	DR	120	1	*	-	-	5-15P	48"	EXISTING, VERIFY ALL REQUIREMENTS
23	1	MICROWAVE OVEN - EXISTING	DR	120	1	*	-	-	5-15P	*	EXISTING, TO REMAIN
25	1	WATER DISPENSER - EXISTING	DR	120	1	5.0	-	-	5-15P	48"	EXISTING, VERIFY ALL REQUIREMENTS
27	1	COFFEE MAKER - EXISTING	DR	120	1	13.3	-	1.6	5-15P	48"	EXISTING, VERIFY ALL REQUIREMENTS
29	1	CREAM DISPENSER - EXISTING	DR	120	1	5.0	-	-	5-15P	48"	EXISTING, VERIFY ALL REQUIREMENTS
30	1	KITCHEN EXHAUST FAN	JB	120	1	12.8	-	-	-	VFY	20 AMP MOCB
C.O.	LOT	CONVENIENCE OUTLET	DR	120	1	20*	-	-	5-20R	48"	20 AMP CONVENIENCE ELECTRICAL RECEPTACLE

REVISIONS:		
1	06/12/2019	ADDED EXHAUST & MUA FAN & DUCT ROUTING


ALTO - HARTLEY, INC.
4601-A EISENHOWER AVE.
ALEXANDRIA, VA 22304
(703) 883-1448

PROJECT:

ENGINE HOUSE 2
500 F St. NW
Washington, DC

DRAWN BY:
CHECKED BY:

SHEET TITLE:

ELECTRICAL
CONNECTION
PLAN

DATE:
07/16/2018
SCALE:
1/4" = 1'-0"
JOB NO.:
SHEET NO.:
K-3



SEE MANUFACTURER'S SHOP DRAWINGS FOR COMPLETE DETAILS.

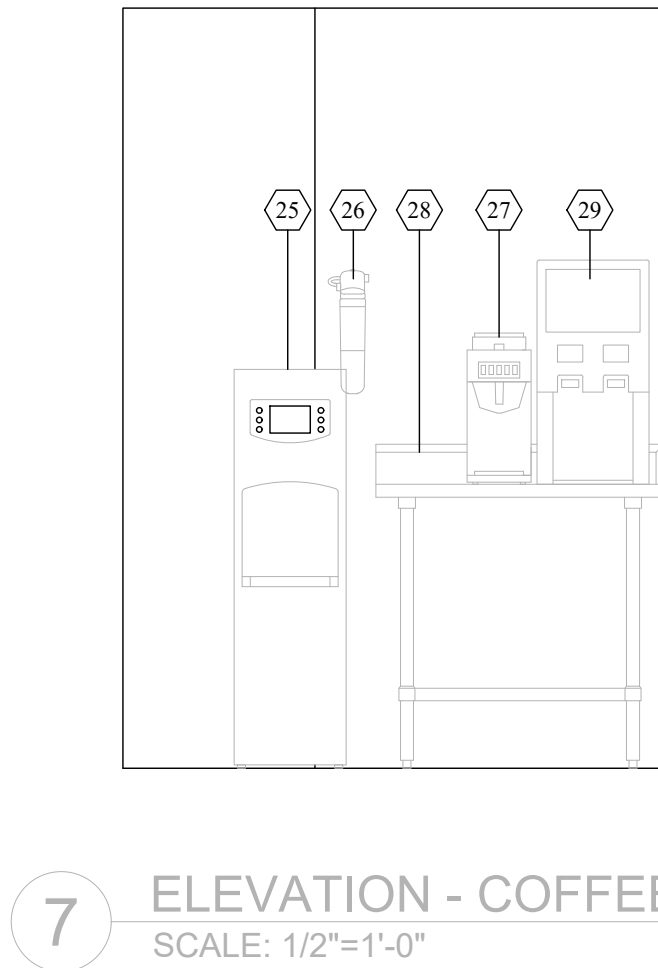
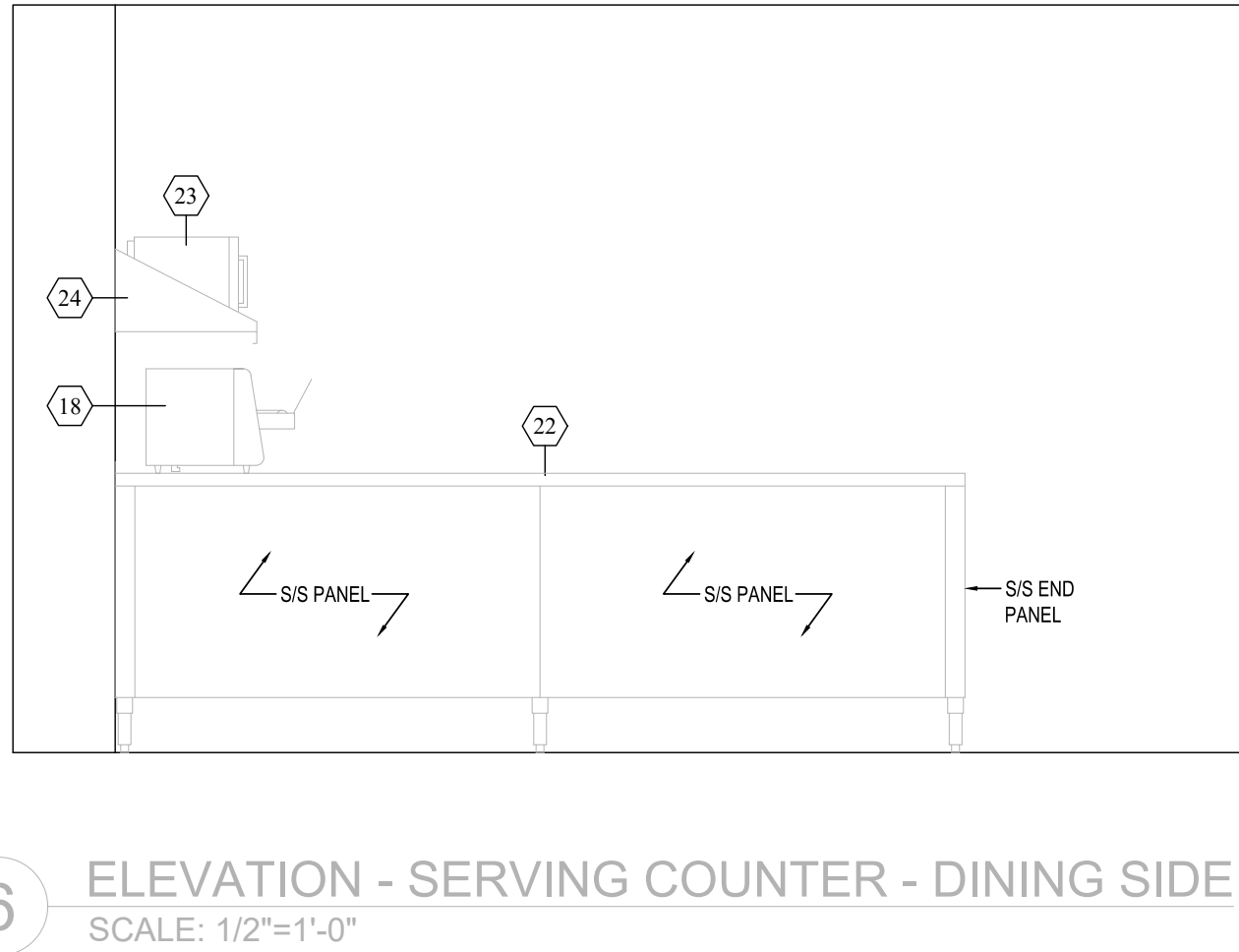
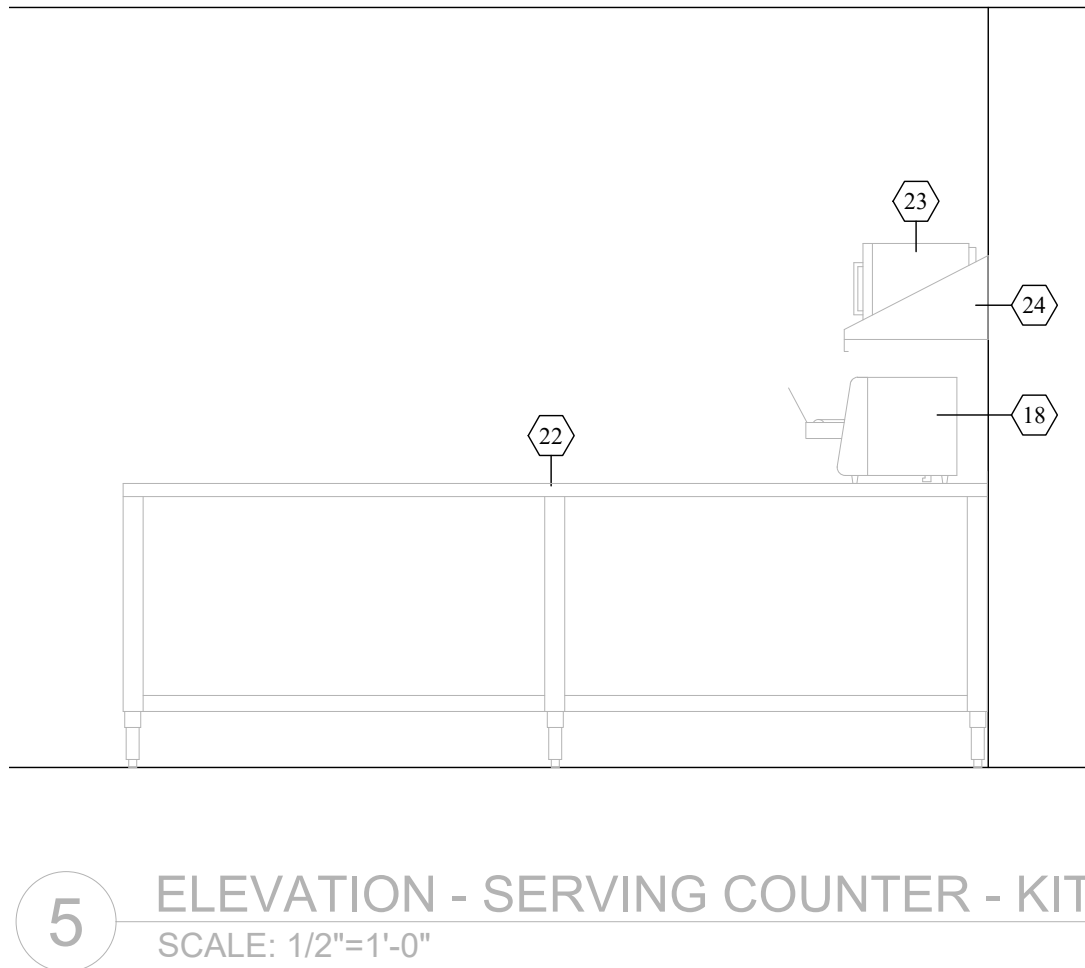
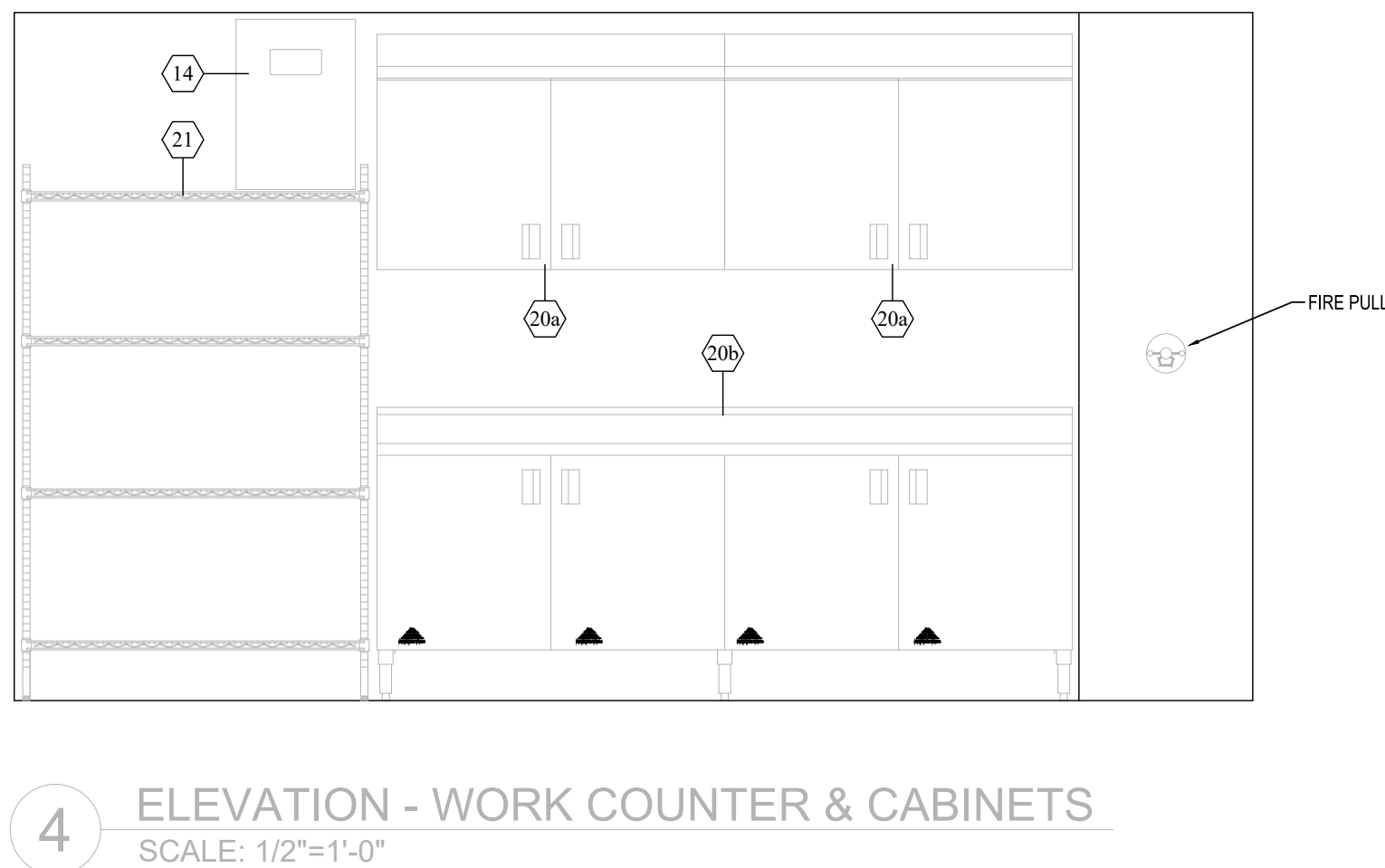
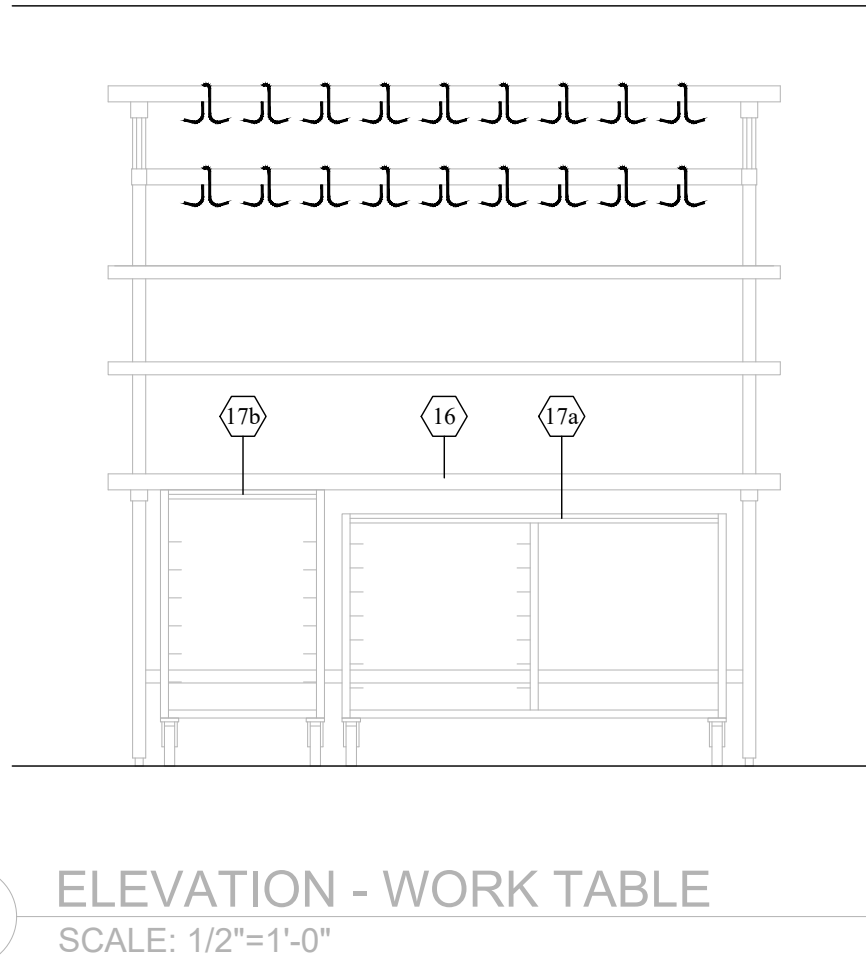
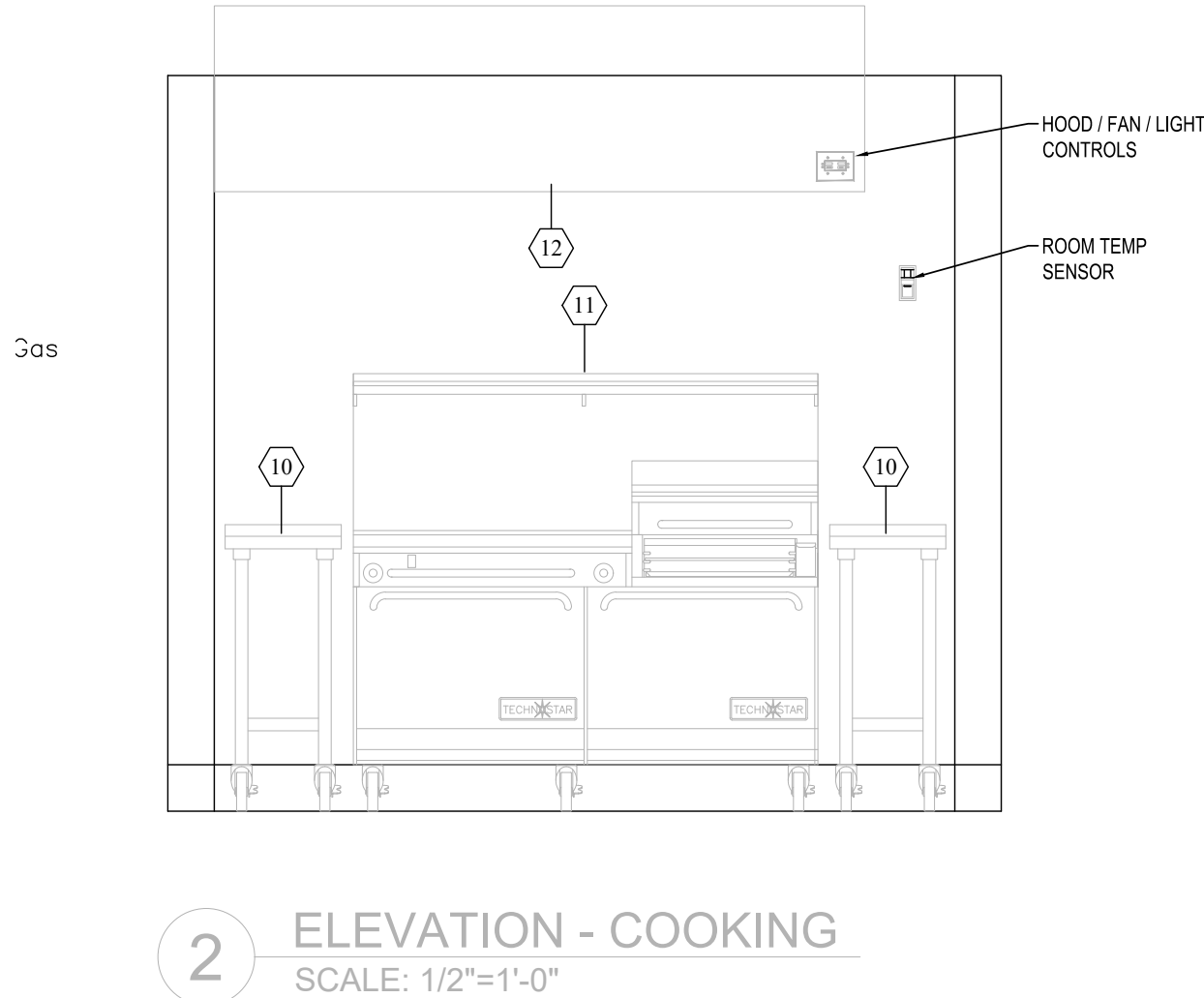
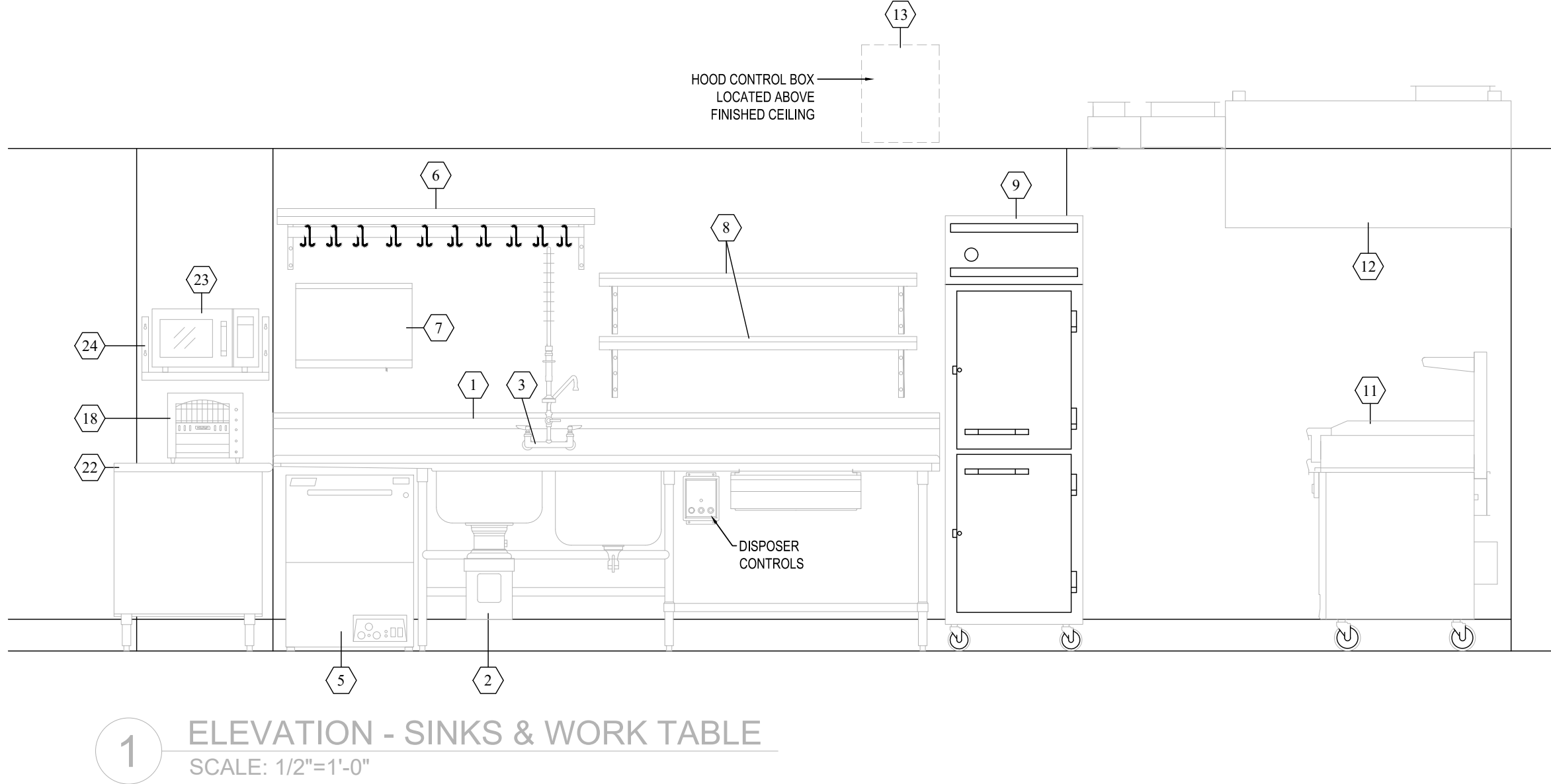
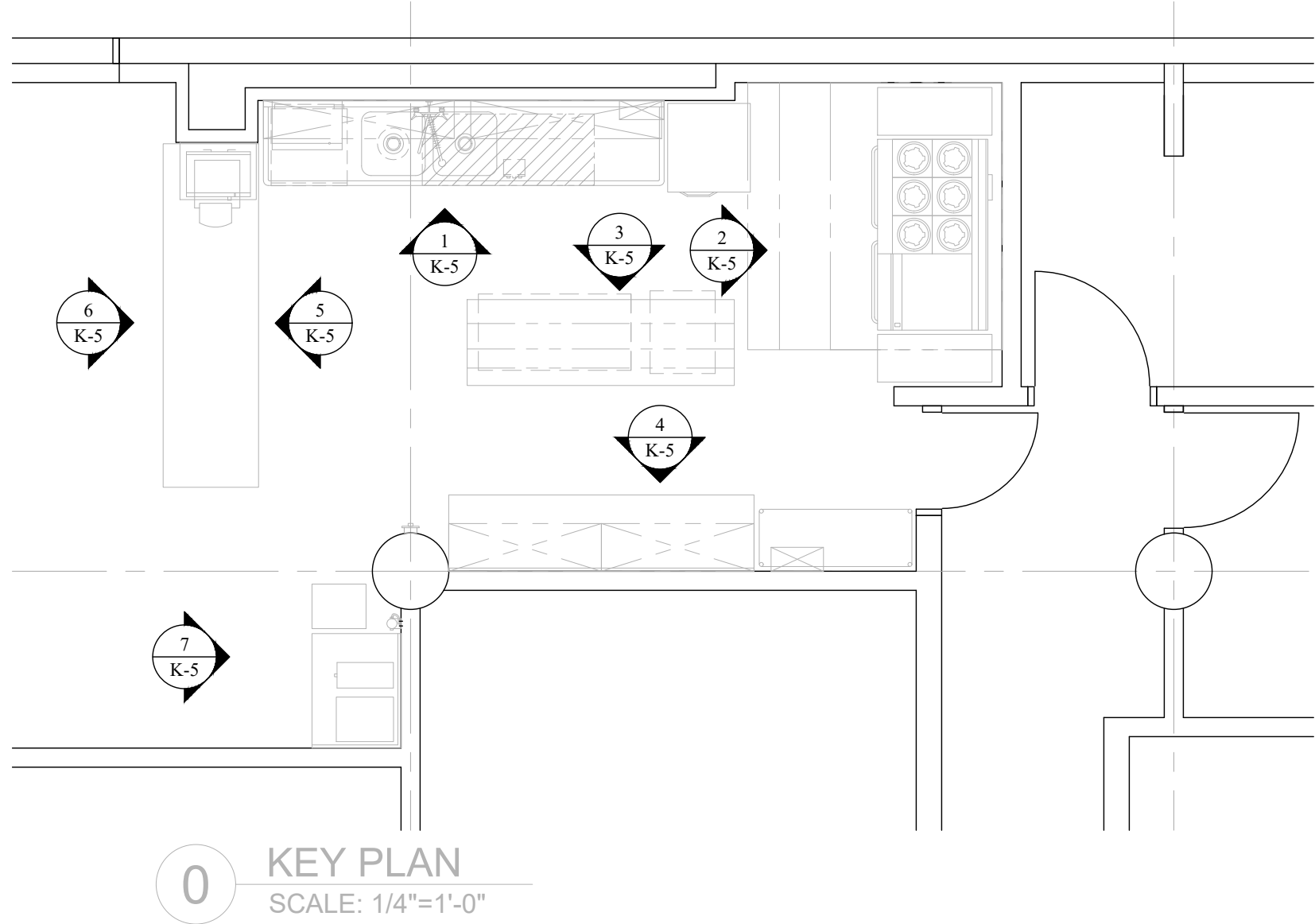
1. PROVIDE GAS PIPING FOR NEW MUA HEATER -
TIE INTO NEAREST ADEQUATELY SIZED GAS LINE
2. PROVIDE ACCESS PANELS AS REQUIRED FOR
MUA HEATER SERVICE & FILTER CHANGE

ENGINE HOUSE 2
500 F St. NW
Washington, DC

SPECIAL
CONDITIONS &
EXHAUST DUCT
CONNECTION
PLAN

K-4

EQUIPMENT SCHEDULE			
NO	QTY	DESCRIPTION	REMARKS
1	1	WORK TABLE WITH SINKS	
2	1	DISHWASHER	
3	1	PRE-RINSE SPRAY W/ ADD-ON FAUCET	
4	1	SPARE NUMBER	
5	1	UNDERCOUNTER DISHWASHER	
6	1	WALL SHELF W/ POT RACK	EXISTING TO REMAIN
7	1	BLANDED BAKING SHELF	
8	2	WALL SHELF	
9	1	REACH-IN REFRIGERATOR	
10	2	WORK TABLE - MOBILE	
11	1	6-BURNER RANGE W/ GRIDDLE, BROILER & OVENS	
12	1	EXHAUST HOOD	
13	1	EXHAUST HOOD CONTROL PANEL	
14	1	FIRE SUPPRESSION SYSTEM	
15	100	STAINLESS STEEL WALL PANELS	
16	1	WORK TABLE OPEN BASE W/ OVERHEAD VIEW & POT RACK	
17	1	MOBILE WORK TOP POT RACK - 48" X 24"	
18	1	MOBILE WORK TOP PAN RACK - 30" X 20"	
19	1	TOASTER	EXISTING, RELOCATED
20	1	TRASH CAN	EXISTING, RELOCATED
21	1	WORK COUNTER W/ LOCKABLE STORAGE BINS	EXISTING, RELOCATED
22	2	WALL CABINETS - LOCKABLE	
23	1	STORAGE SHEDDING	
24	1	DISC COUNTER W/ UNDERCOUNTER FRONT & SIDE ARMORS	
25	1	MICROWAVE OVEN	EXISTING TO REMAIN
26	1	MICROWAVE SHELF	EXISTING TO REMAIN
27	1	WATER DISPENSER	EXISTING, RELOCATED
28	1	WATER FILTER	
29	1	COFFEE MAKER	EXISTING, RELOCATED
30	1	6X TABLE W/ UNDERSHIELD	
31	1	CREAM DISPENSER	EXISTING, RELOCATED
32	1	KITCHEN EXHAUST FAN	WALL MOUNTED
33	1	KITCHEN MAKE-UP AIR FAN	CASE FIED



REVISIONS:		
1	06/12/2019	ADDED EXHAUST & MUA FAN & DUCT ROUTING

ALTO - HARTLEY, INC.
4601-A EISENHOWER AVE.
ALEXANDRIA, VA 22304
(703) 883-1448

PROJECT:

ENGINE HOUSE 2
500 F St. NW
Washington, DC

DRAWN BY:	CHECKED BY:
-----------	-------------

SHEET TITLE:

ELEVATIONS

DATE: 07/16/2018	SHEET NO.:
SCALE: 1/4" = 1'-0"	K-5
JOB NO.:	

EXHIBIT 3

UPDATED KITCHEN EXHAUST & MAKE UP AIR PLAN

[EXHIBIT WILL APPEAR ON THE FOLLOWING PAGE]

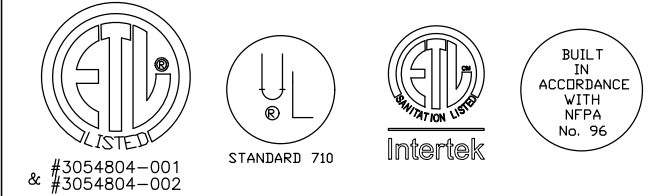


HOOD STYLE / MODEL	450 DEGREES cfm/ft.	600 DEGREES cfm/ft.	700 DEGREES cfm/ft.
CANOPY ND-2	150	200	250
CANOPY ND-2 W/ END PANELS	105	140	175
SLOPED SND-2	228	294	—
ISLAND ND-2WI	269	300	350
ISLAND ND-2I	346	422	475

$$\begin{aligned} \text{EXHAUST CFM} &= \text{LENGTH OF HOOD} \times \text{CFM/LIN.FT. (LOAD)} \\ \text{SUPPLY CFM} &= \text{EXHAUST CFM} \times \text{PERCENTAGE REQUIRED} \\ \text{TOTAL DUCT AREA (sq. in.)} &= 144 \times \frac{\text{CFM}}{\text{FPM}(*)} \\ \text{DUCT LENGTH} &= \frac{\text{TOTAL DUCT AREA}}{\text{DUCT WIDTH}} \end{aligned}$$

*CAPTIVEAIR VENTILATOR DUCT SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1500-1800 FPM AND A SUPPLY VELOCITY OF 1000 FPM.

CAPTIVE-AIRE HOODS BUILT IN COMPLIANCE WITH:



Listed under ETL File number 3054804-001/002

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

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

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 DRAWINGS. OTHER REMOTE MATERIALS PROVIDED BY INSTALLING CONTRACTORS.
4. ALL CONNECTIONS FROM CAPTIVEARE HOOD PER MECHANICAL CONTRACTORS.
5. COOKING EQUIPMENT TO SHUT OFF IN EVENT OF FIRE.
6. EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
7. ALL LIGHT FIXTURES SHOWN INSTALLED BY CAPTIVEARE ARE FACTORY PREWIRED. INTERCONNECTIONS BETWEEN LIGHTS AND TO SWITCHES BY ELECTRICAL CONTRACTORS.
8. LAMPS FOR LIGHT FIXTURES BY INSTALLING CONTRACTORS.
9. SEISMIC RESTRAINTS ARE RESPONSIBILITY OF INSTALLING CONTRACTORS.
10. INSTALLING CONTRACTORS ASSUME ALL RELATED RESPONSIBILITY FOR VERIFICATION OF DIMENSIONAL DATA CONTAINED ON DRAWINGS AND FOR THE DESIGN, ACQUISITION, INTEGRATION, AND ADMINISTRATION OF ALL REQUIREMENTS TO EFFECTUATE THE PROJECT BY RELEASE FOR PRODUCTION OF EQUIPMENT SHOWN.

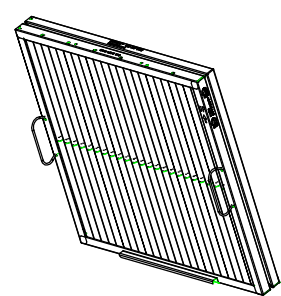
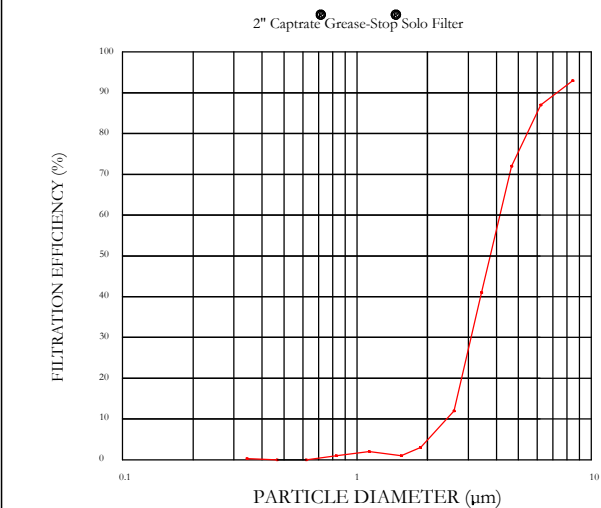
BALANCE

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.

FILTER COLLECTION EFFICIENCY



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

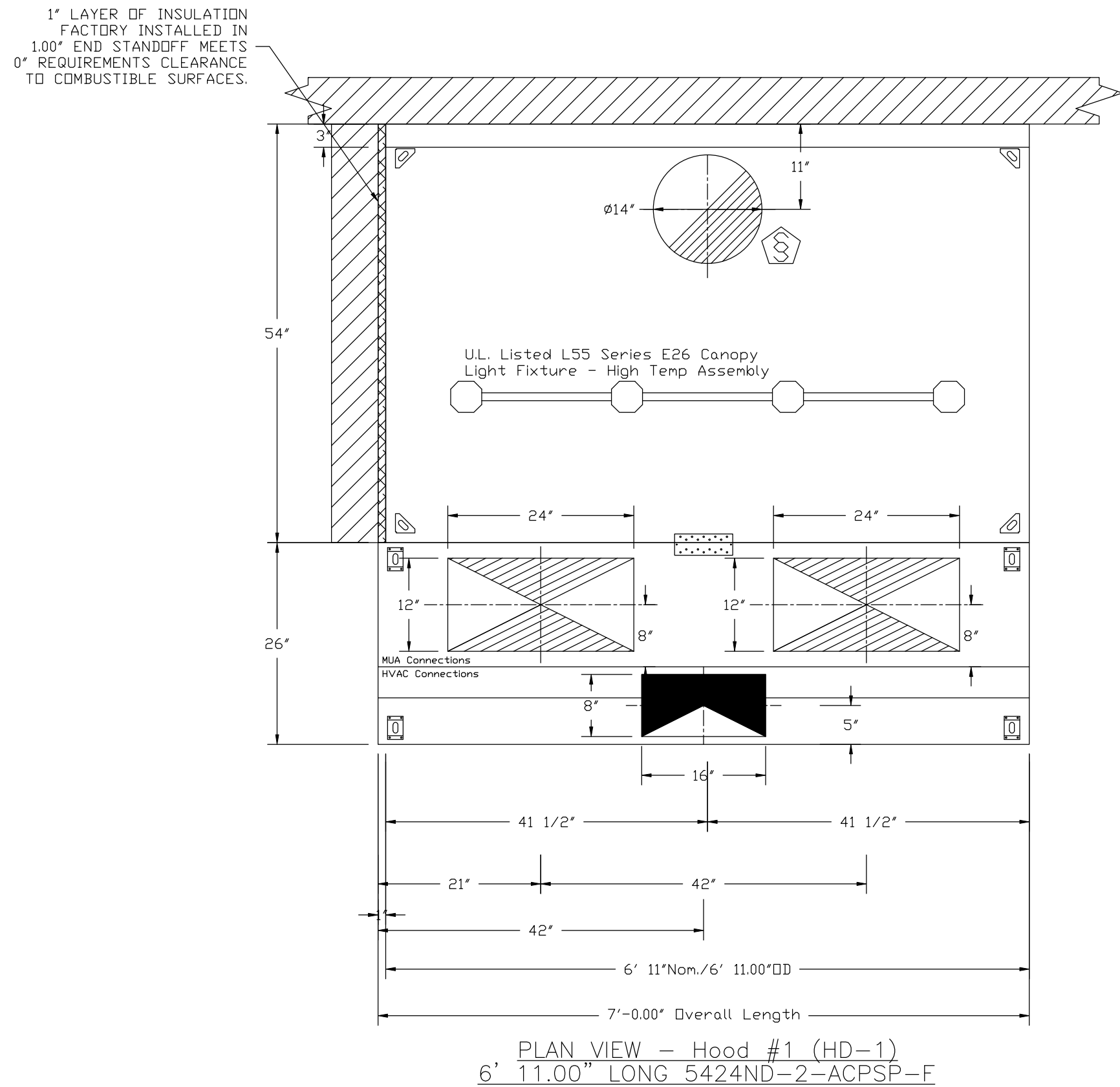
FILTER DETAIL

HOOD INFORMATION - Job#3863215																	
HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM								MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG.	
					TOTAL EXH. CFM	RISER(S)										END TO END	ROW
					WIDTH	LENG.	HEIGHT	DIA.	CFM	VEL.	S.P.						
1	HD-1	5424 ND-2-ACPSP-F	6' 11"	600 Deg.	1556		4'	14"	1556	1456	-0.638"	1245	300	430 SS Where Exposed	ALONE	ALONE	

HOOD NO.	TAG	FILTER(S)			LIGHT(S)			UTILITY CABINET(S)						FIRE SYSTEM PIPING	HOOD SYSTEM HANGING WGHT		
		TYPE	QTY.	HEIGHT	LENGTH	QTY.	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM		ELECTRICAL			SWITCHES	
											TYPE	SIZE	MODEL #			QUANTITY	
1	HD-1	Captrate Solo Filter	5	20"	16"	4	L55 Series E26	NO								YES	475 LBS

HOOD NO.	TAG	OPTION
1	HD-1	FIELD WRAPPER 18.00' High Front, Right
		BACKSLASH 80.00' High X 84.00' Long 430 SS Vertical
		LEFT END STANDOFF 1' High 54" Long Insulated
		LEFT SIDESPLASH 80.00' Wide X 54.00' Long 430 SS Vertical

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG.	DIA.	CFM	S.P.
1	HD-1	Front	84"	26"	6"	MUA	12"	24"		622	0.173"
						MUA	12"	24"		622	0.173"
						AC	8"	16"		300	0.075"



ACPSP ships loose for field installation

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

CUSTOMER APPROVAL TO MANUFACTURE:

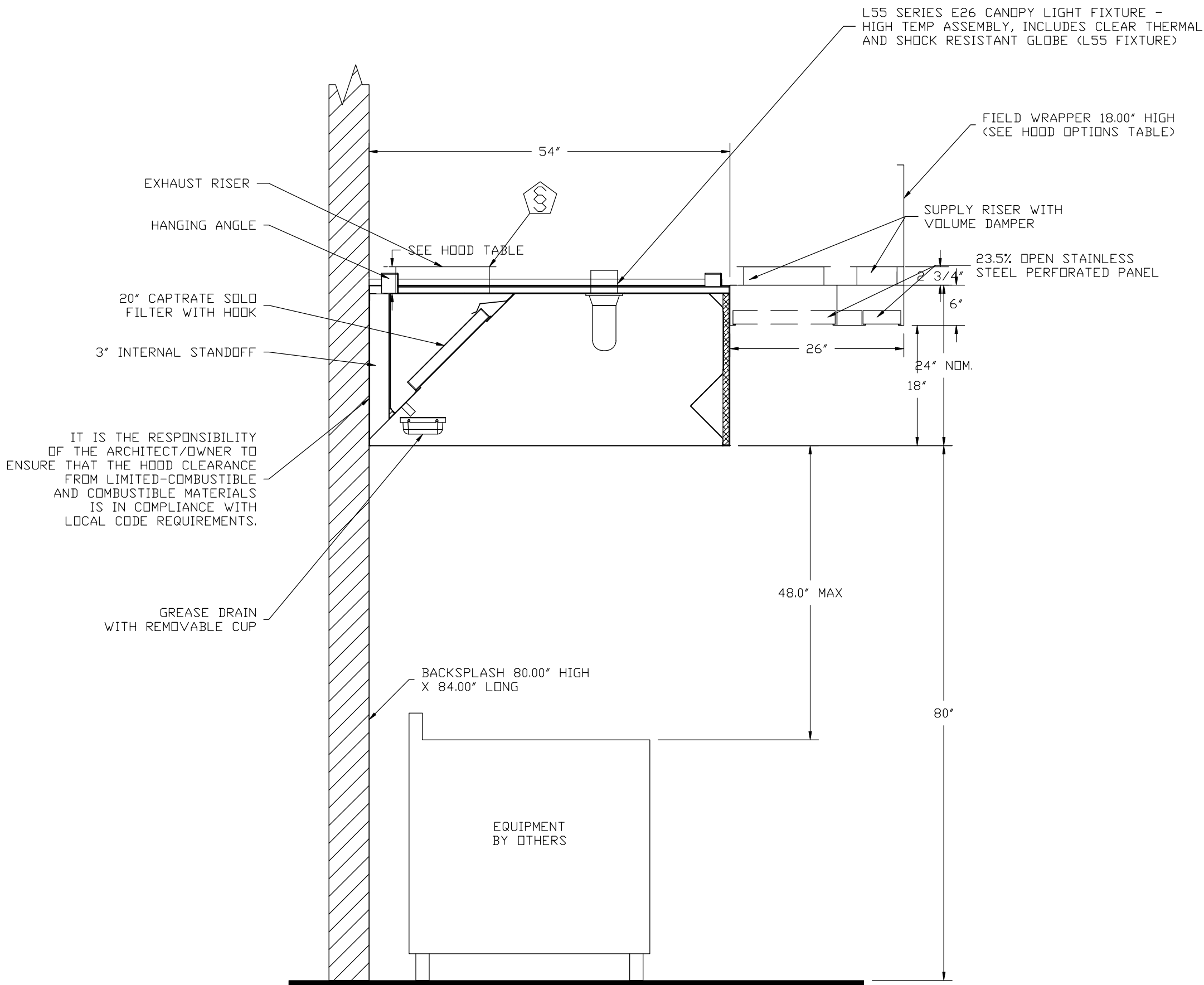
Approved as Noted

Approved with NO Exception Taken

Revise and Resubmit

SIGNATURE _____

Your Title _____ Date _____



SECTION VIEW - MODEL 5424ND-2-ACPSP-F
HOOD - #1 (HD-1)

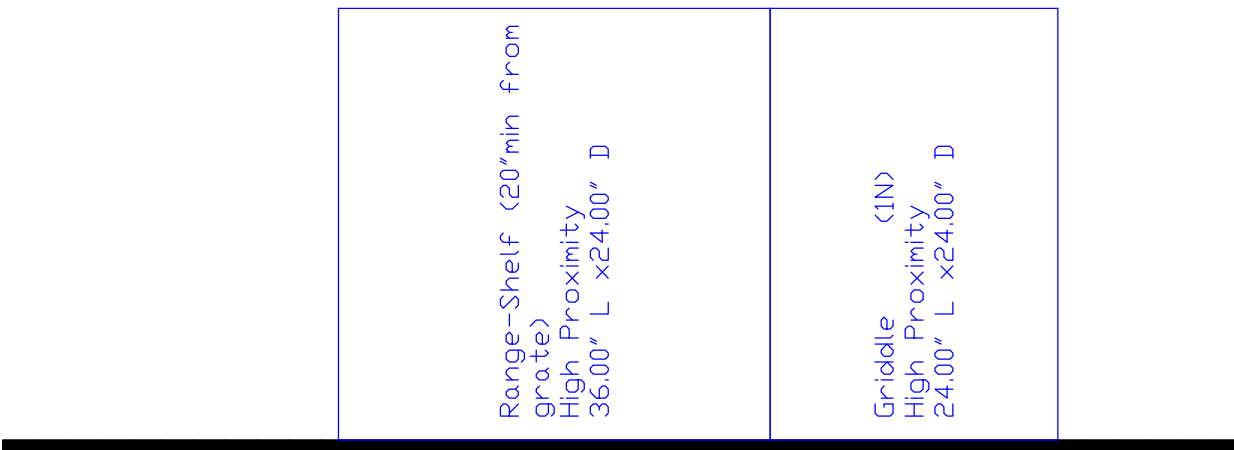
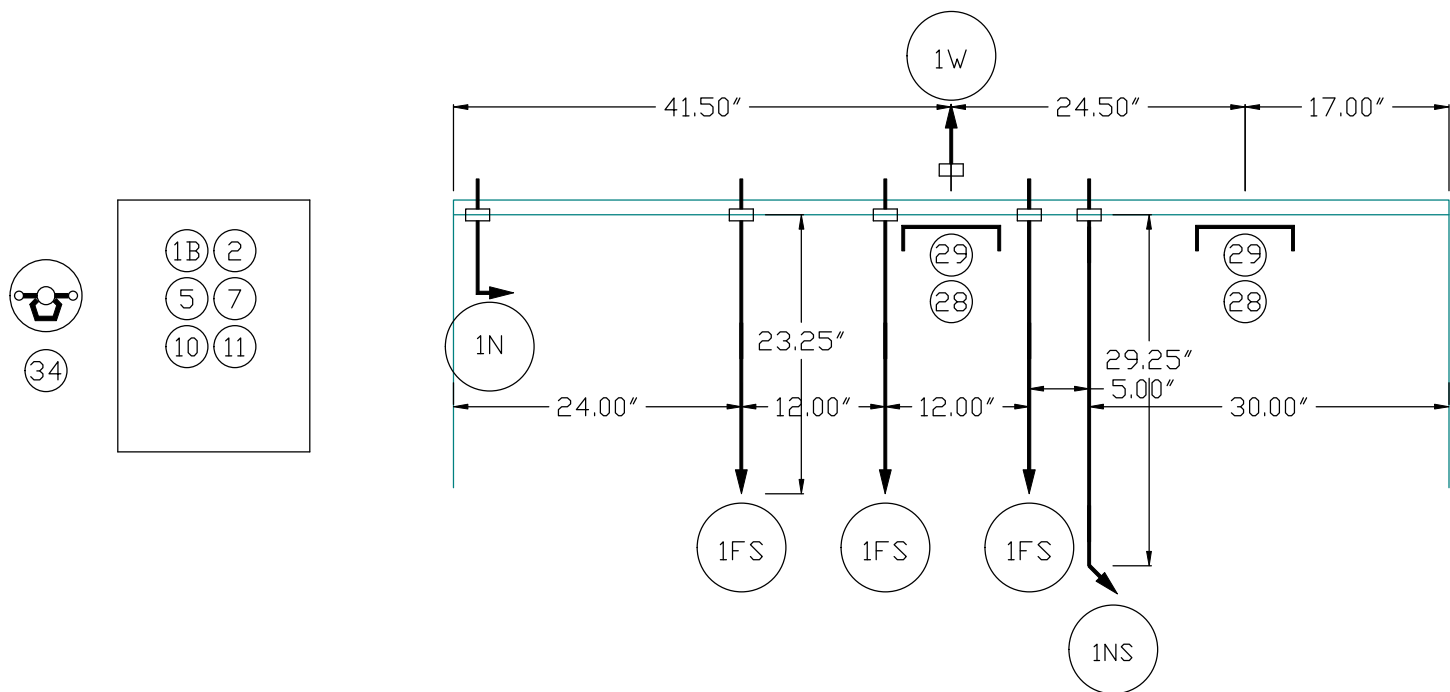
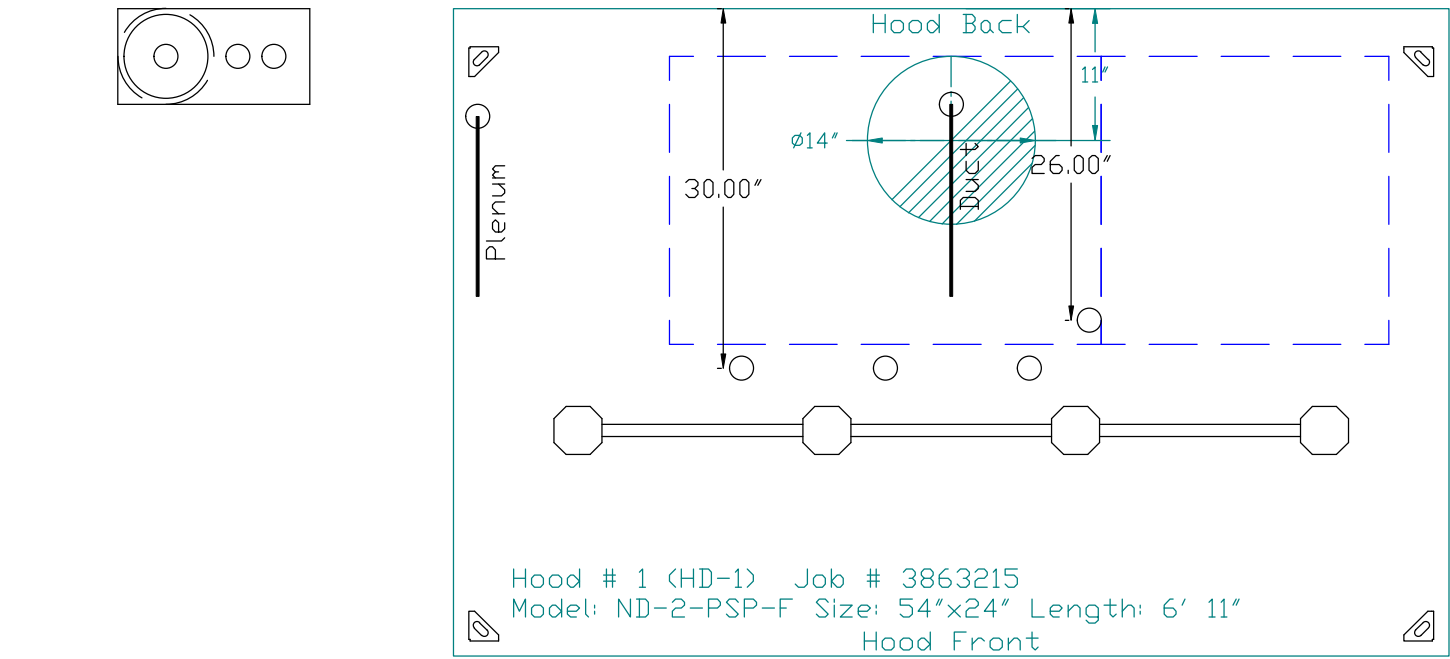
IT IS RECOMMENDED NOT TO INSTALL HIGH VELOCITY DIFFUSERS OR HVAC RETURNS WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

EXHAUST HOOD DETAILS

Engine House 2 - DC_R1 WASHINGTON, DC, 20001		<table><tr><th colspan="2">REVISIONS</th></tr><tr><th>DESCRIPTION</th><th>DATE:</th></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>		REVISIONS		DESCRIPTION	DATE:										
REVISIONS																	
DESCRIPTION	DATE:																
 www.captiveair.com Maryland Office 2221 Kansas Ave. Silver Spring, MD, 20910 PHONE: (800) 988-0081 FAX: (919) 227-5931 EMAIL: reg32@captiveair.com																	
DATE: 6/11/2019		DWG.#: 3863215															
DRAWN BY: MD-32		SCALE: NTS															
MASTER DRAWING																	
SHEET NO.		1															

Fire System Information – Job#3863215

FIRE SYSTEM NO.	Tag	TYPE	SIZE	MAX FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1	14	Ansul R102	3.0	11	Wall Mount Left	N/A



- NOTES
- FIELD PIPE DROPS AS SHOWN
 - SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVEING, SALAMANDERS, ETC.
 - MAXIMUM 9 ELBOWS IN SUPPLY LINE.
 - MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE.
 - IF APPLICABLE, PRE-PIPED CHARBROILER 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.

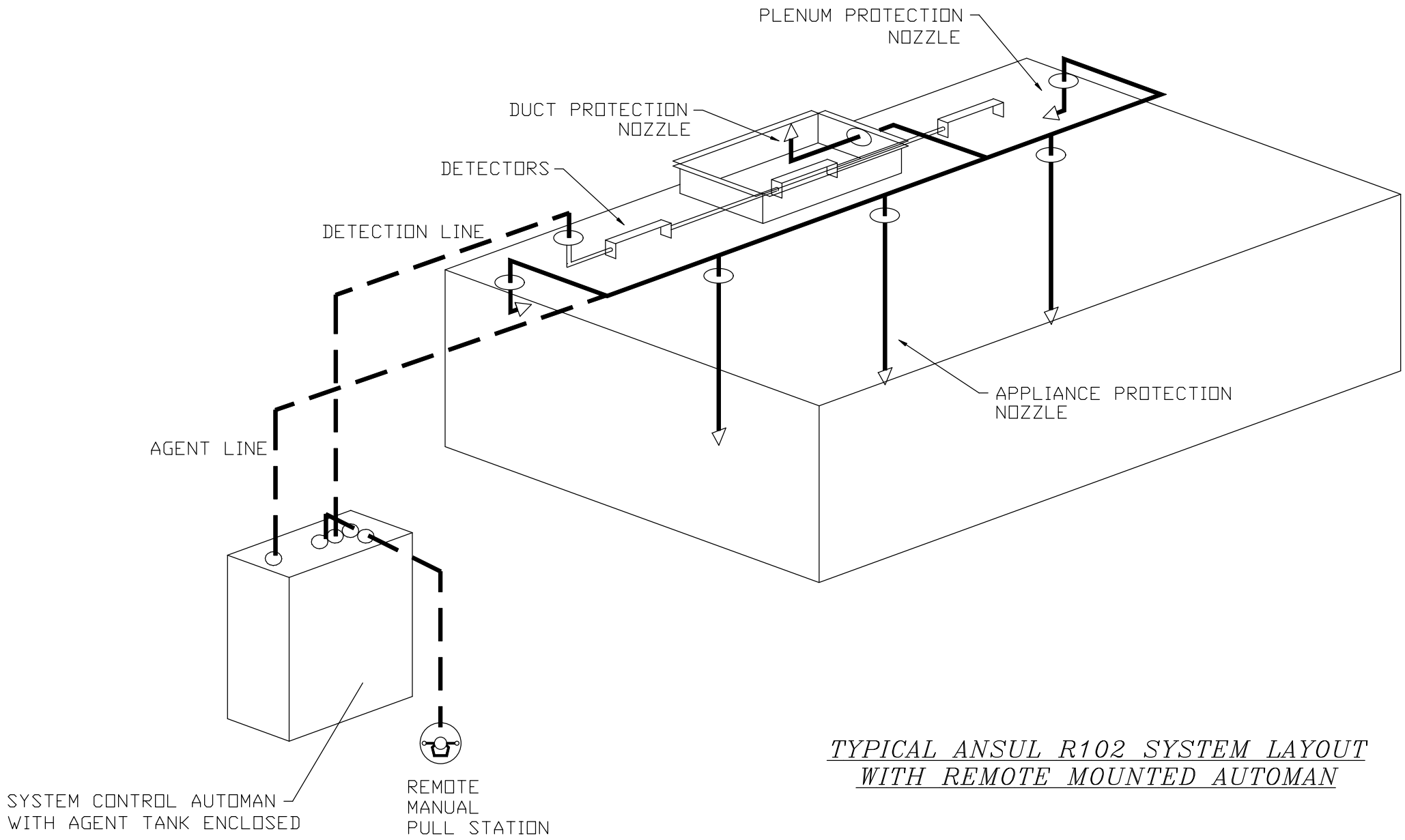
- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS

Job #: 3863215
Job Name: Engine House 2 - DC_R1

System Size: ANSUL-3.0 Total FP required: 6
Hood # 1 6' 11.00" Long x 54" Wide x 24" High
Riser # 1 Size: 14" Dia.
Hood # 1 Metal Blow-Off Caps included.

LEGEND – WALL MOUNTED ANSUL SYSTEM

- 1A 1.5 GALLON TANK
- 1B 3.0 GALLON TANK
- 2 AUTOMAN RELEASE
- 3 3 GALLON TANK ENCLOSURE
- 3A 6 GALLON TANK ENCLOSURE
- 4 REGULATED ACTUATOR
- 5 ANSULEX LIQUID AGENT (3 GAL.)
- 6 ANSULEX LIQUID AGENT (1.5 GAL.)
- 7 CARTRIDGE (101-20)
- 8 CARTRIDGE (101-10)
- 9 CARTRIDGE (101-30)
- 9A CARTRIDGE (LT-A-101-30)
- 9B DOUBLE TANK CARTRIDGE
- 10 TEST LINK
- 11 DOUBLE MICROSWITCH
- 2W DUCT NOZZLE (419337)
- 1W NOZZLE ASSEMBLY (419336)
- 1F NOZZLE ASSEMBLY (419333)
- 1N NOZZLE ASSEMBLY (419335)
- 1/2N NOZZLE ASSEMBLY (419334)
- 3N NOZZLE ASSEMBLY (419338)
- 245 NOZZLE ASSEMBLY (419340)
- 230 NOZZLE ASSEMBLY (419339)
- 2120 NOZZLE ASSEMBLY (419343)
- 290 NOZZLE ASSEMBLY (419342)
- 260 NOZZLE ASSEMBLY (419341)
- 28 DETECTOR BRACKET
- 29 LOW TEMP FUSIBLE LINK
- 30 HIGH TEMP FUSIBLE LINK
- MGV MECHANICAL GAS VALVE
- EGV ELECTRICAL GAS VALVE
- 34 REMOTE MANUAL PULL STATION
- S SWIVEL ADAPTOR



TYPICAL ANSUL R102 SYSTEM LAYOUT
WITH REMOTE MOUNTED AUTOMAN

CUSTOMER APPROVAL TO MANUFACTURE:	
Approved as Noted	☐
Approved with NO Exception Taken	☐
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:
Δ	
Δ	
Δ	
Δ	
Δ	

CAPTIVE FIRE PROTECTION, INC.

www.captivefire.com

UL LISTED

UL 300

UL 100

2221 Kansas Ave, Silver Spring, MD 20910

PHONE: (800) 988-0881

FAX: (919) 227-5931

EMAIL: reg32@captivefire.com

Engine House 2 - DC_R1

WASHINGTON, DC, 20001

DATE: 6/11/2019

DWG.#: 3863215

DRAWN BY: MD-32

SCALE: NTS

MASTER DRAWING

SHEET NO. 2

EXHAUST FAN INFORMATION – Job#3863215

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS.)	SONES
1	KEF-1	DUB5HFA	1556	1.650	1486	1.000	0.6490	1	115	10.2	492 FPM	92	18.4

MUA FAN INFORMATION – Job#3863215

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SONES
2	MAU-1	D76	G7	D.6	–	1245	0.400	1855	1.500	0.8940	1	115	12.2	367	24

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO.	TAG	INPUT BTUs	OUTPUT BTUs	TEMP. RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE
2	MAU-1	79284	72941	55 deg F	7 in. w.c. – 14 in. w.c.	Natural

FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. – Descr.)
1	KEF-1	1 – Grease Box
		1 – Through Wall Curb Mount Installation. Curb height must be minimum 9’ taller than wall thickness for use with a hinge kit.
		1 – Wall Mount Construction For Fan
		1 – Ship Loose Disconnect For Remote Mount.
		1 – ECM Wiring Package-Exhaust – PWM Signal from ECPM03 Prewire (NIDEC Motor)
2	MAU-1	1 – High Profile Lid
		1 – AC Interlock Relay – 24VAC Coil
		1 – Inlet Pressure Gauge, 0–35’
		1 – Manifold Pressure Gauge, –5 to 15’ wc
		1 – D76 Indoor Hanging Option – Includes 2 HSA125 Hanging Spring Isolators per Uni-Strut

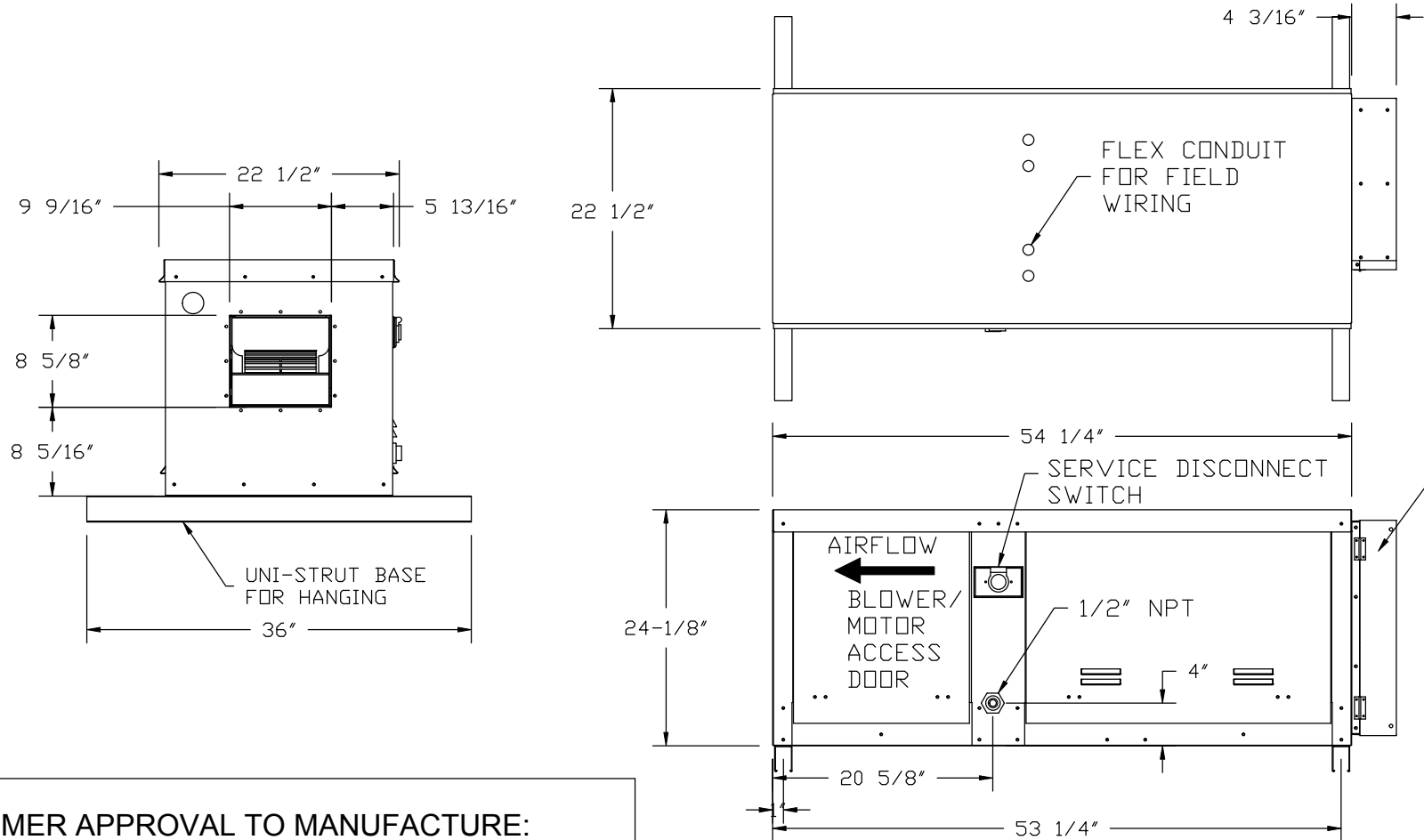
FAN ACCESSORIES

FAN UNIT NO.	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-1	YES						
2	MAU-1				YES			

CURB ASSEMBLIES

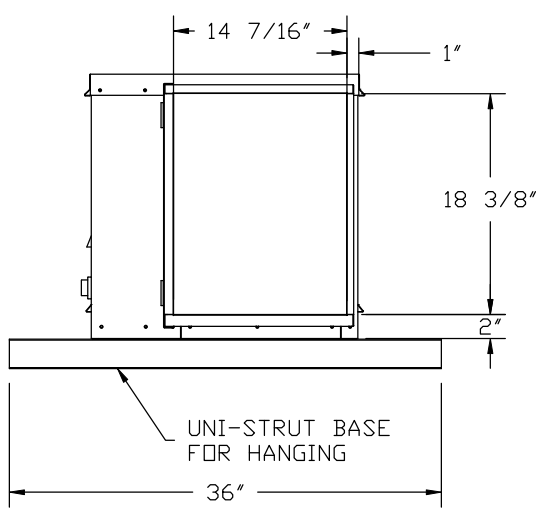
NO.	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-1	36 LBS	Curb	23.000”W x 23.000”L x 20.000”H Vented Hinged

- FAN #2 D76 – HEATER (MAU-1)
1. LOW CFM DIRECT FIRED HEATER. BELT DRIVE.
2. INLINE EZ FILTER – INDOOR
3. SIDE DISCHARGE – AIR FLOW RIGHT -> LEFT
4. HIGH PROFILE LID OPTION FOR D76. REQUIRED WITH BELT DRIVE, SINGLE PHASE MOTORS.
5. COOLING INTERLOCK RELAY – 24VAC COIL. 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.
6. GAS PRESSURE GAUGE, 0–35”, 2.5” DIAMETER, 1/4” THREAD SIZE
7. GAS PRESSURE GAUGE, –5 TO +15 INCHES W.C., 2.5” DIAMETER, 1/4” THREAD SIZE
8. INDOOR HANGING CRADLE FOR THE COMPACT DIRECT FIRED UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
ISOLATOR QUANTITY SUBJECT TO CHANGE BASED ON UNIT CONFIGURATION.

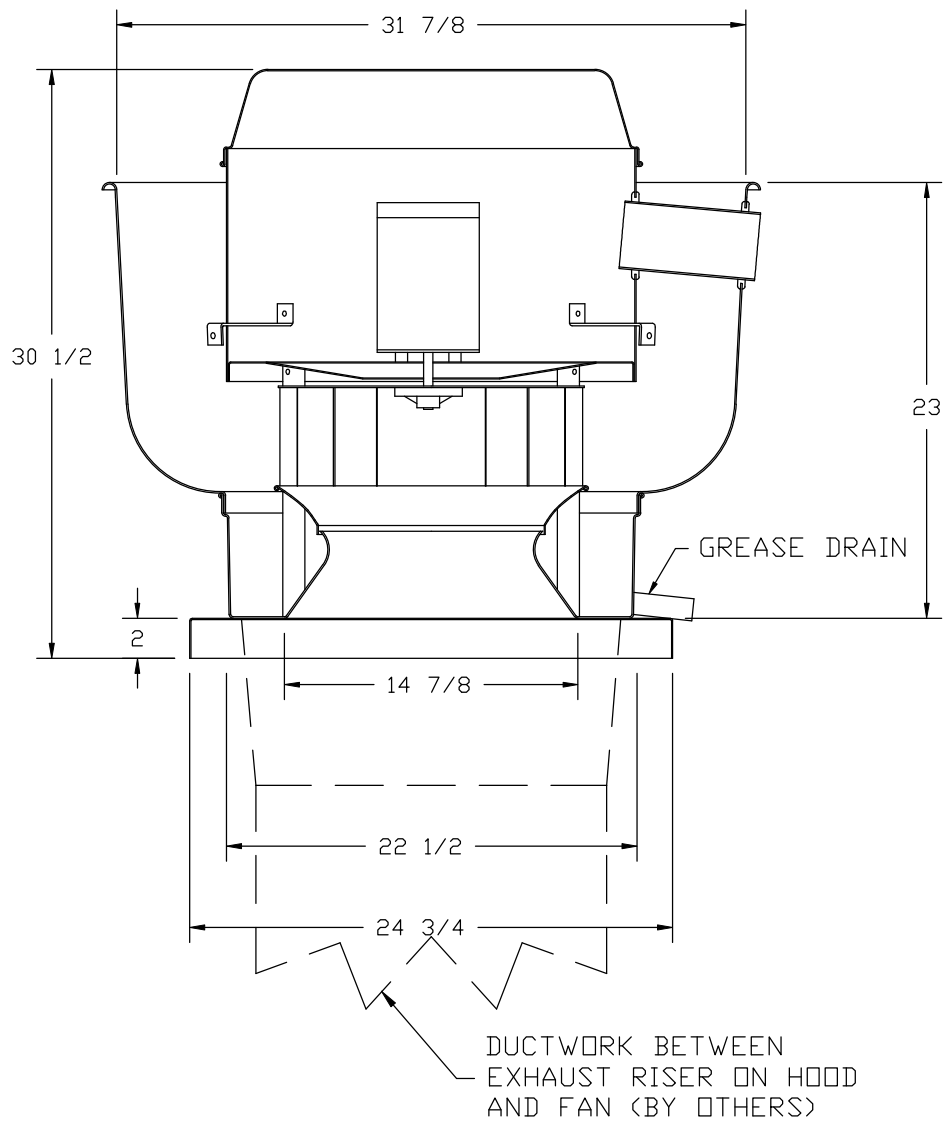


SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 20°F. TEMP. RISE = 55°F.
BTUS CALCULATED OFF ACTUAL AIR DENSITY
OUTPUT BTUS AT ALTITUDE OF 0.0 ft. = 73155
INPUT BTUS AT ALTITUDE OF 0.0 ft. = 79516
OUTPUT BTUS AT ALTITUDE OF 81 ft. = 72941
INPUT BTUS AT ALTITUDE OF 81 ft. = 79283



FAN #1 DUB5HFA – EXHAUST FAN (KEF-1)



FEATURES:

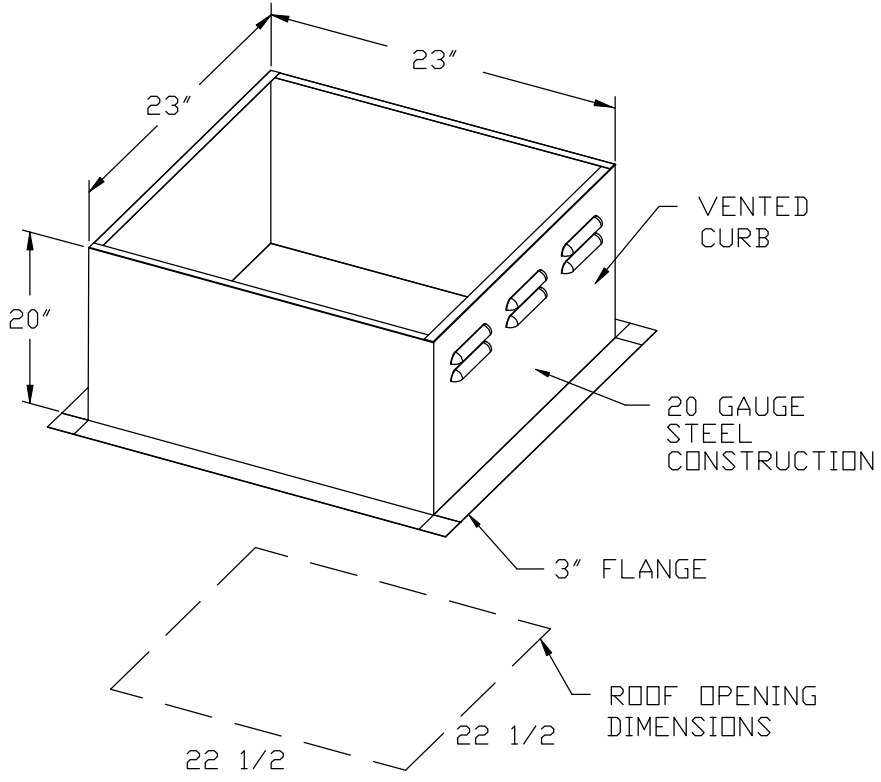
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS)
- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL
- INTERNAL WIRING
- WEATHERPROOF DISCONNECT
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE)
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

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

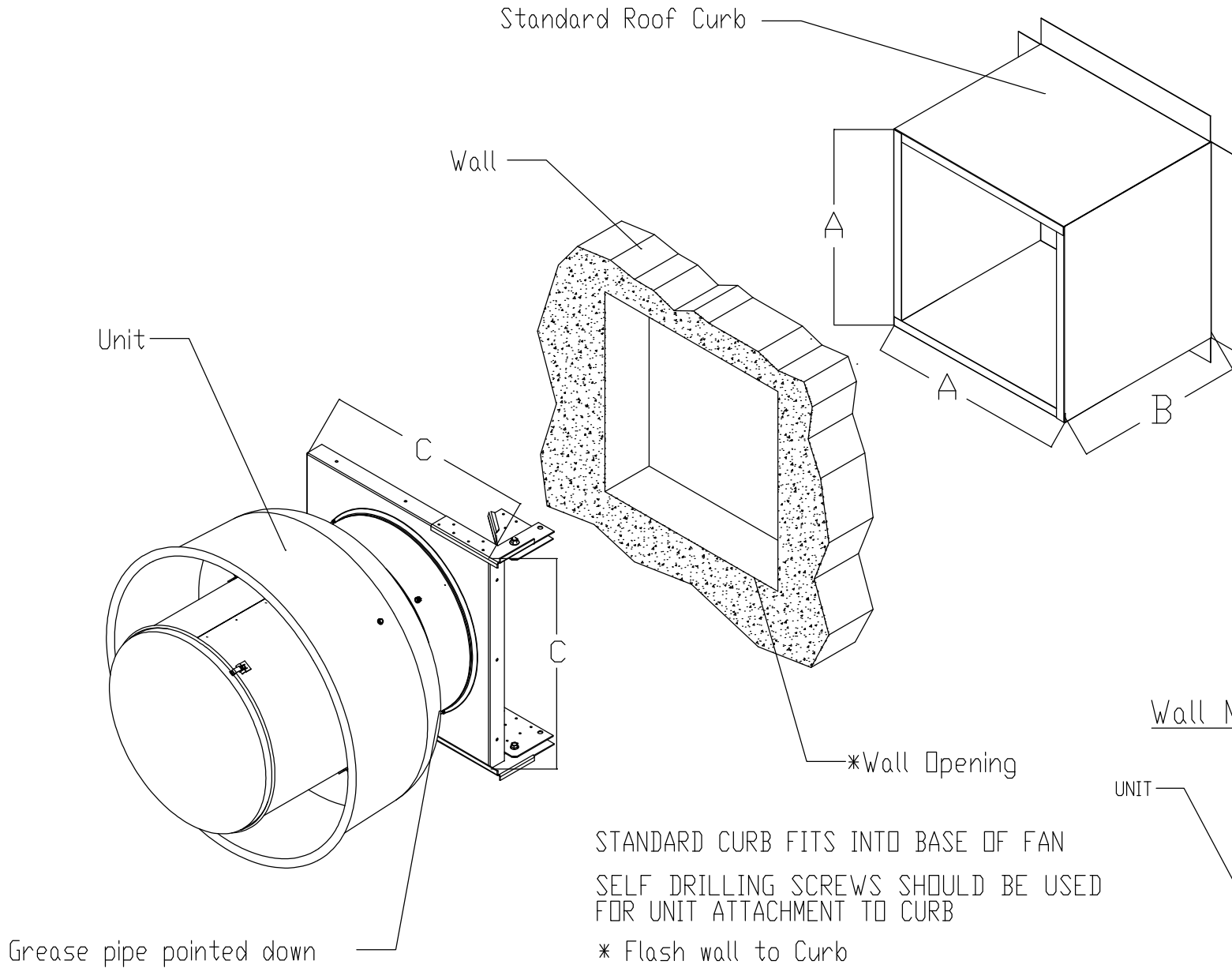
GREASE BOX, THROUGH WALL CURB MOUNT INSTALLATION. CURB HEIGHT MUST BE MINIMUM 9’ TALLER THAN WALL THICKNESS FOR USE WITH A HINGE KIT.
WALL MOUNT CONSTRUCTION FOR FAN. SHIP LOOSE DISCONNECT FOR REMOTE MOUNT.
ECM WIRING PACKAGE-EXHAUST – PWM SIGNAL FROM ECPM03 PREWIRE (NIDEC MOTOR).



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

Wall Mount w/ Standard Curb

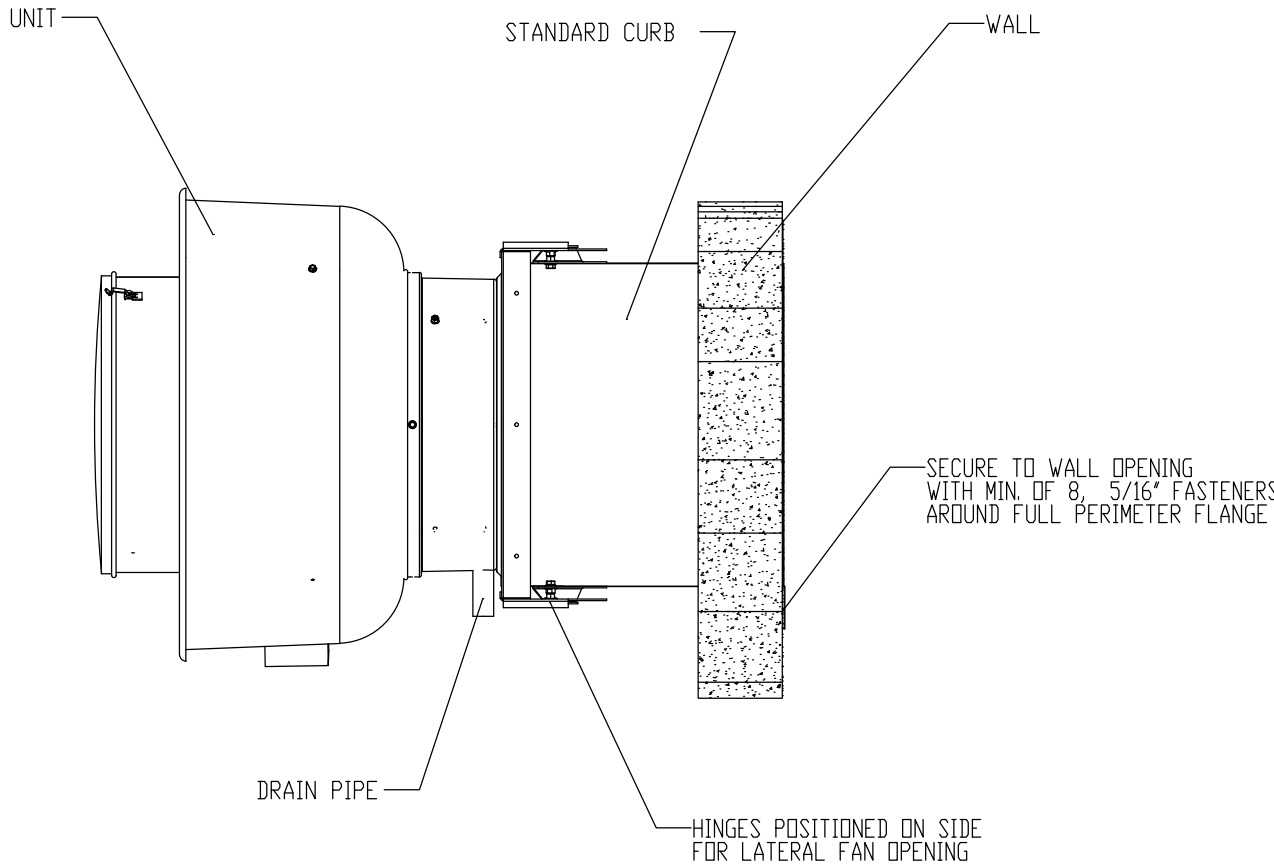
(24” WHEEL 2 HP – 1 & 3 PHASE)
(24” WHEEL 3 HP – 3 PHASE MAXIMUM)



A (IN.)	B (IN.)	C (IN.)
19 1/2	22	21
19 1/2	20	21
23	20	24 3/4
26 1/6	20	28
26 1/2	20	28
31 1/2	20	33

Wall Mount w/ Standard Curb SIDE VIEW

(24” WHEEL 2 HP & 3 HP 1 PHASE MAXIMUM)



STANDARD CURB FITS INTO BASE OF FAN
SELF DRILLING SCREWS SHOULD BE USED FOR UNIT ATTACHMENT TO CURB

* Flash wall to Curb

FLASHING AND SEALING OF WALL PENETRATION DONE BY OTHERS

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:

www.captiveair.com

Maryland Office

2221 Kansas Ave, Silver Spring, MD 20910 PHONE: (800) 988-0881 FAX: (919) 227-5931 EMAIL: reg32@captiveair.com

Engine House 2 – DC_R1
WASHINGTON, DC, 20001

DATE: 6/11/2019
DWG.#: 3863215
DRAWN BY: MD-32
SCALE: NTS
MASTER DRAWING

SHEET NO. 3

ELECTRICAL PACKAGE - Job#3863215

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Φ	H.P.	VOLT	FLA
1		SC-111110FP	Wall Mount In SS Box	05 - SS Wall Mount Box	1 Light 1 Fan	Smart Controls Thermostatic Control	KEU-1	Exhaust	1	1.000	115	10.2
							MAU-1	Supply	1	1.500	115	12.2

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:

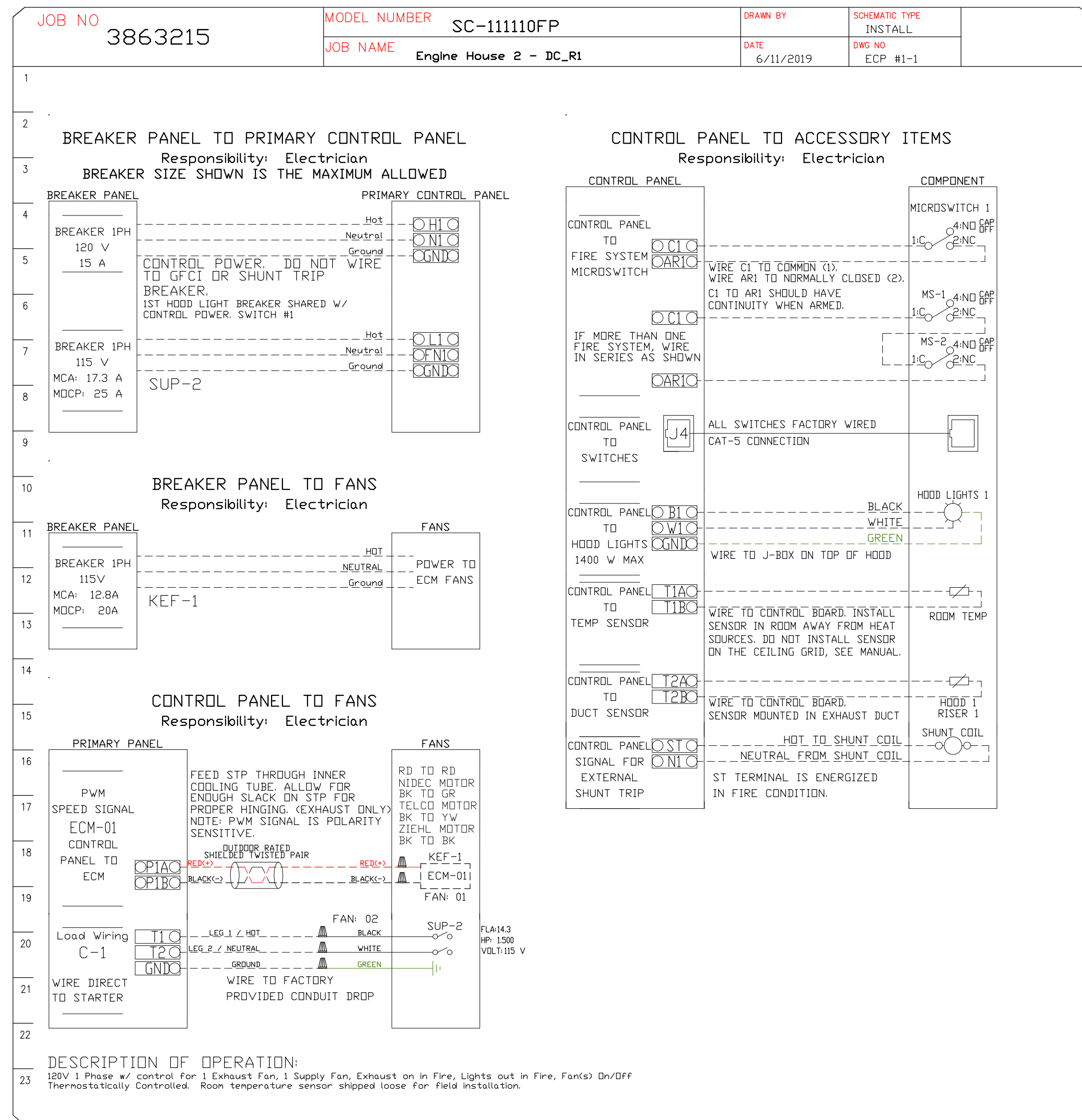
Operator presses the fan button to energize contactor(s) and start the exhaust fan(s). Supply fan(s), if present, will be activated by factory pre-wired interlock.

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:
△	
△	
△	
△	

Engine House 2 - DC_R1
WASHINGTON, DC, 20001



Capitive Air
www.captiveaire.com

DATE: 6/11/2019

DWG.#: 3863215

DRAWN BY: MD-32

SCALE: NTS

MASTER DRAWING





Maryland Office
2221 Kansas Ave. Silver Spring, MD. 20910 PHONE: (800) 988-0881 FAX: (919) 227-5931 EMAIL: reg32@captiveaire.com

SHEET NO.

4