HOOD INFORMATION – JOB#4651364

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1	HD 1	5412 SND-2	CAPTIVEAIRE	12' 0"	600 DEG	I	HEAVY	206	2472	10"	20"	4"		2472	1780	-1.132"	0	430 SS WHERE EXPOSED	ALONE	ALONE
2	PSP1	166 MISC-PSP	CAPTIVEAIRE	11' 6"	300 DEG	I	N/A	0	0								2050	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	HD 1	CAPTRATE SOLO FILTER	8	16"	16"	85% SEE FILTER SPEC	5	L55 SERIES E26	NO	RIGHT	12"x54"x24"	ANSUL R102	3.0/3.0	DCV-1111	1 LIGHT 1 FAN	YES	871 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	HD 1	FIELD WRAPPER 17.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 150.00" LONG 430 SS VERTICAL.
		BACKSPLASH 120.00" HIGH X 18.00" LONG 430 SS VERTICAL.
		SENSOR-CV.
		RIGHT WIDE VERTICAL END PANEL 42" TOP WIDTH, 36" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.

NOTE:
A 30% reduction in total airflow may be applied to any hood when end panels are installed. End panels must be installed below the hood and must have a minimum height of 20 inches vertically along the wall and a minimum width of 20 inches along the hood. They are permitted to be angled between these two dimensions.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1	HD 1	Front	150"	16"	6"	MUA	10"	28"		690	0.216"
						MUA	10"	28"		690	0.216"
						MUA	10"	28"		690	0.216"

EXHAUST FAN INFORMATION – JOB#4651364

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	Ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF 1	1	USBI18DD-RM	CAPTIVEAIRE	2300	1.850	1273	ODP,PREMIUM	3.000	1.1380	3	208	9.5	1179 FPM	404	18.1

MUA FAN INFORMATION – JOB#4651364

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	Ø	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2	KMUA	1	A1-D.250-15D	15MF-1-MOD	A1-D.250	1000	2070	0.550	2165	ODP,PREMIUM	2.000	1.5960	3	208	6.1	7.7A	15A	511	23

GAS FIRED MAKE-UP AIR UNIT(S)

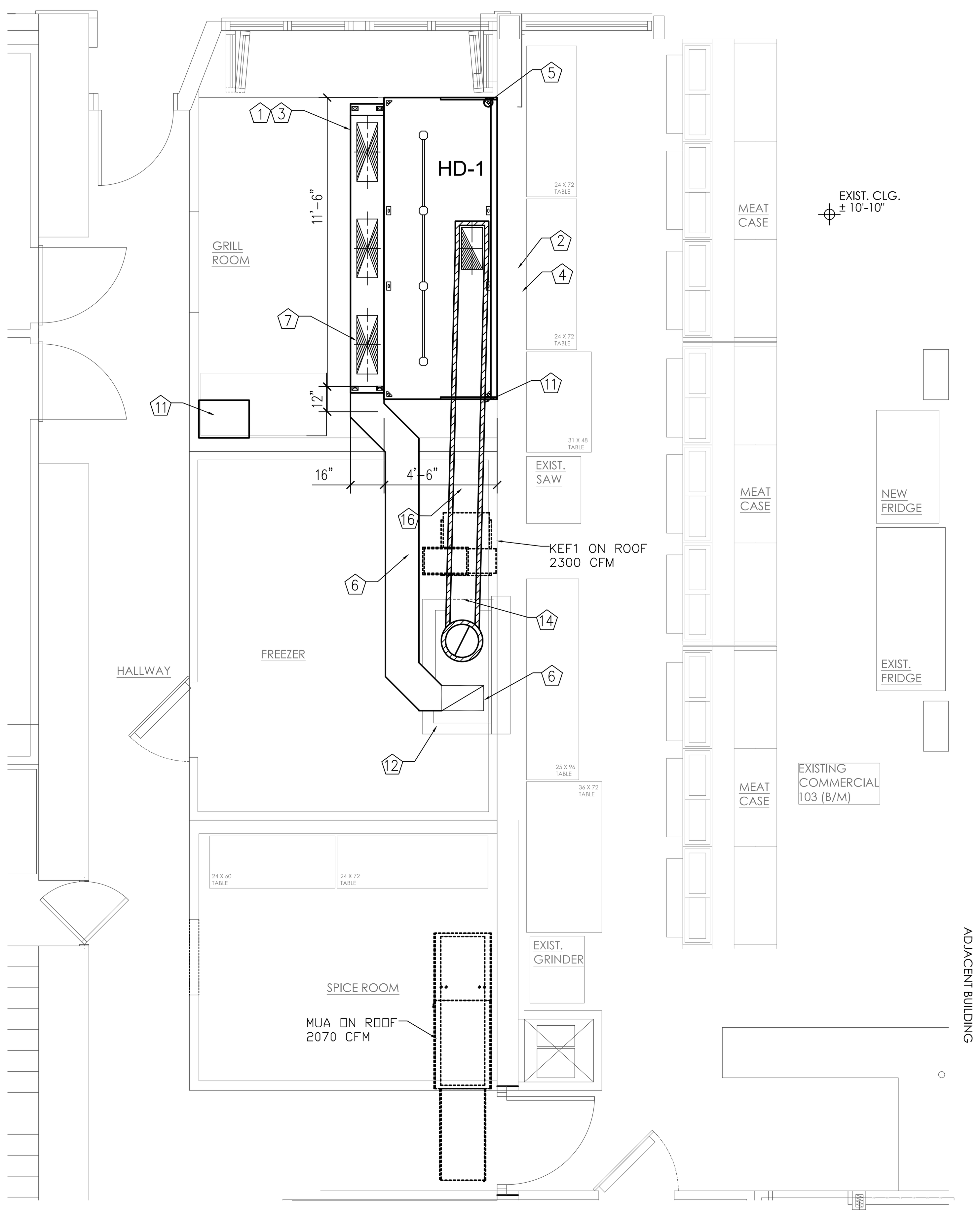
FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMUA	148343	136476	63°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN ACCESSORIES

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

CURB ASSEMBLIES

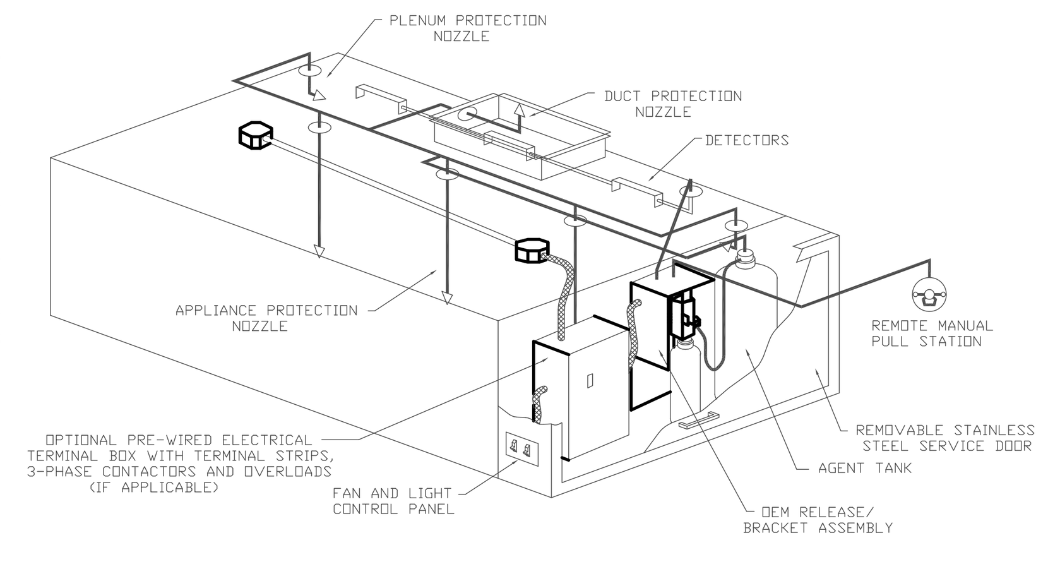
NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF 1	25 LBS	RAIL	4.000"W X 48.000"L X 14.500"H COMES AS A SET OF 2.
2	# 2	KMUA	63 LBS	CURB	21.000"W X 71.000"L X 16.000"H INSULATED.
3		SHAFT-EXH	56 LBS	CURB	26.500"W X 26.500"L X 24.000"H ALONG LENGTH, RIGHT VENTED 16 GAUGE.
4		SHAFT-SUPPLY	51 LBS	CURB	24.000"W X 24.000"L X 16.000"H ALONG LENGTH, RIGHT INSULATED 16 GAUGE.

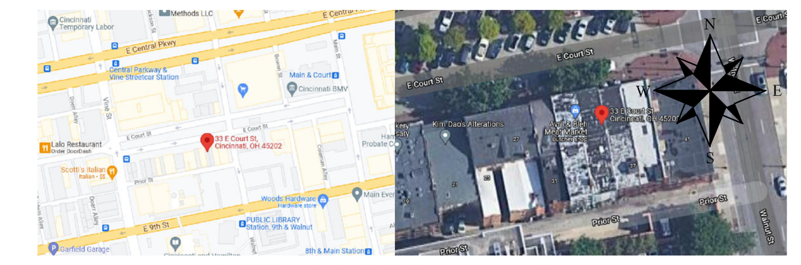


PLAN VIEW - HOOD #1
SCALE: 1/4" = 1'-0"

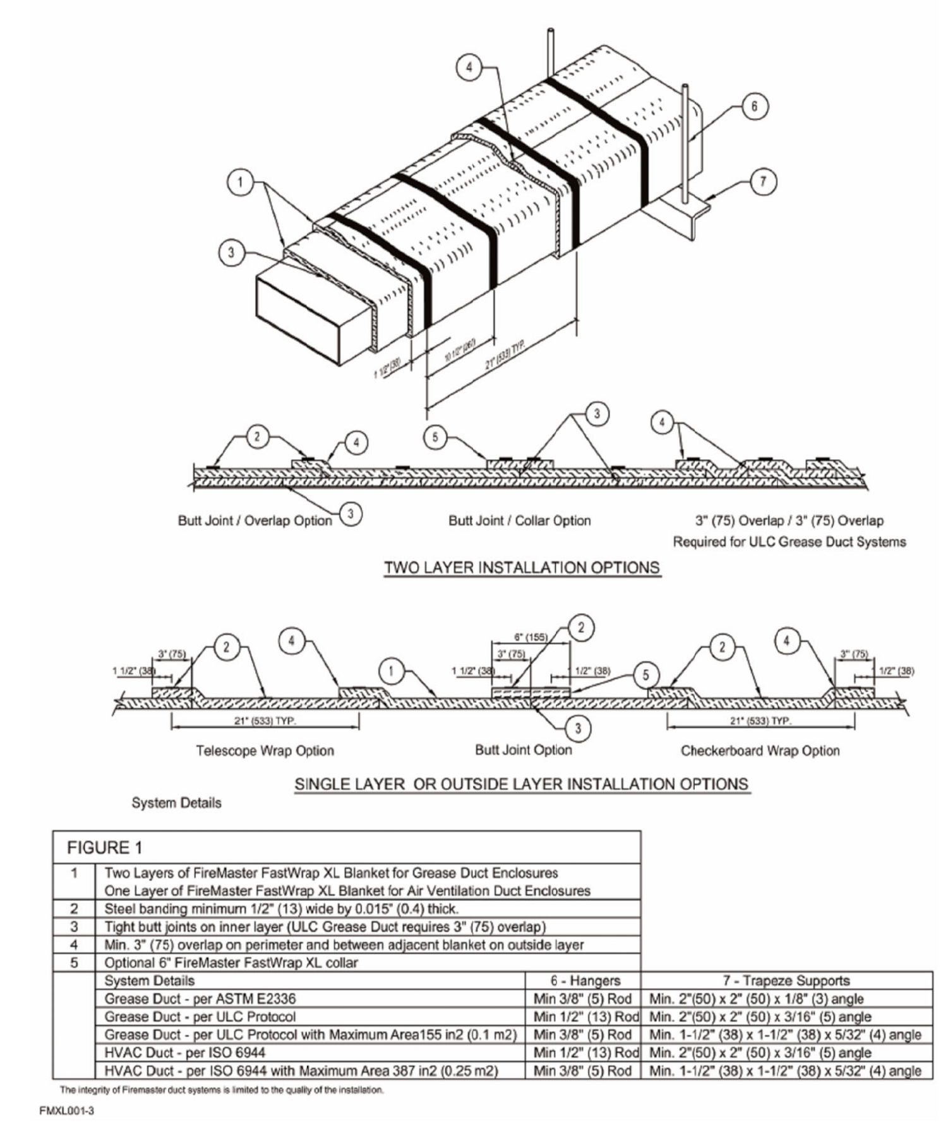
AIR BALANCE SCHEDULE			
TAG	ROOMS SERVED	O.A. CFM	EXHAUST CFM
KEF1	KITCHEN	–	– 2300
KMUA1	KITCHEN	+ 2070	–
HVAC	BUILDING	+ 230 (MIN)	–
NET	0 CFM		

KITCHEN TO MAINTAIN A SLIGHTLY NEGATIVE PRESSURE. OVERALL BUILDING PRESSURE TO BE BETWEEN –0.02" TO +0.02" WC PER IMC COMMENTARY RECOMMENDATIONS



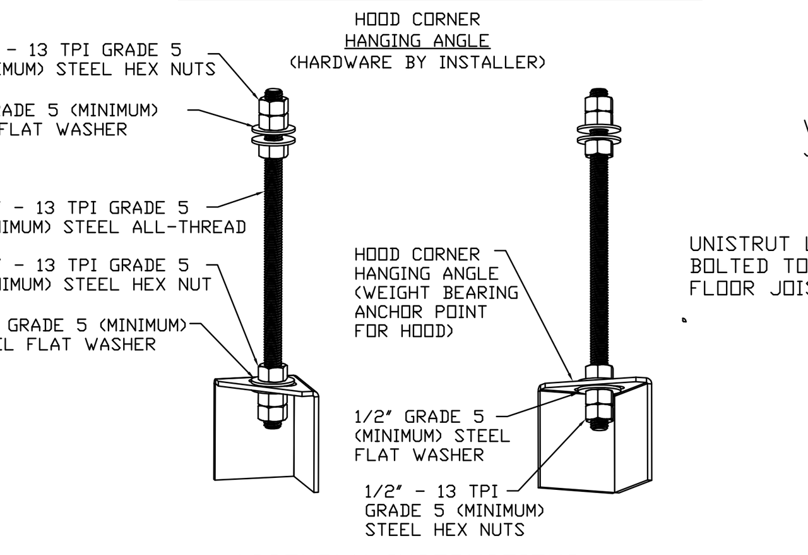


SITE / ROOF PLAN VIEW



FireMaster® FastWrap® XL
Commercial Kitchen Grease Duct Enclosure System
Air Ventilation Duct Enclosure System
1 or 2 Hour Shaft Alternative / Zero Clearance to Combustibles
TWO LAYER INSTALLATION OPTIONS
SINGLE LAYER OR OUTSIDE LAYER INSTALLATION OPTIONS
FIGURE 1

DETAIL #1: HOOD HANGING ASSEMBLY

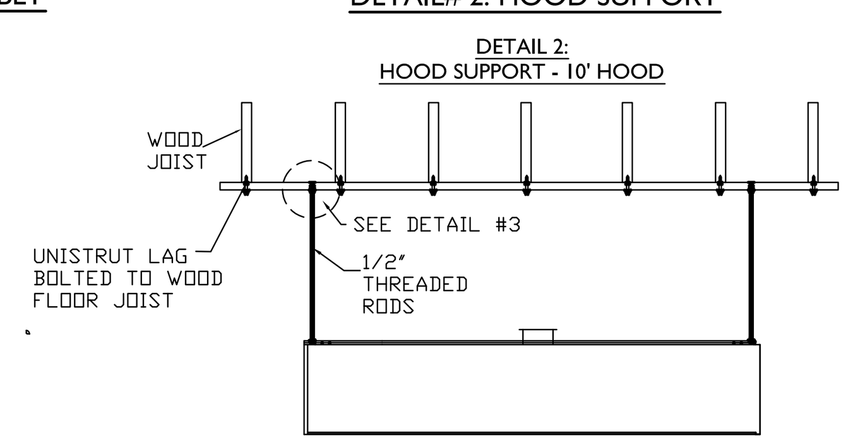


HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)
1/2" - 13 TPI GRADE 5 (MINIMUM) STEEL HEX NUTS
1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHER
1/2" - 13 TPI GRADE 5 (MINIMUM) STEEL ALL-THREAD
1/2" - 13 TPI GRADE 5 (MINIMUM) STEEL HEX NUT
1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHER
HOOD CORNER HANGING ANGLE (WEIGHT BEARING ANCHOR POINT FOR HOOD)
1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHER
1/2" - 13 TPI GRADE 5 (MINIMUM) STEEL HEX NUTS

ASSEMBLY INSTRUCTIONS

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

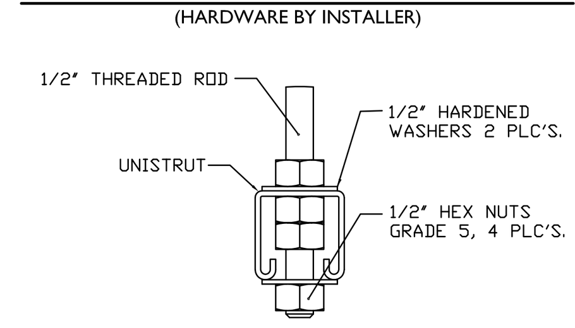
DETAIL# 2: HOOD SUPPORT

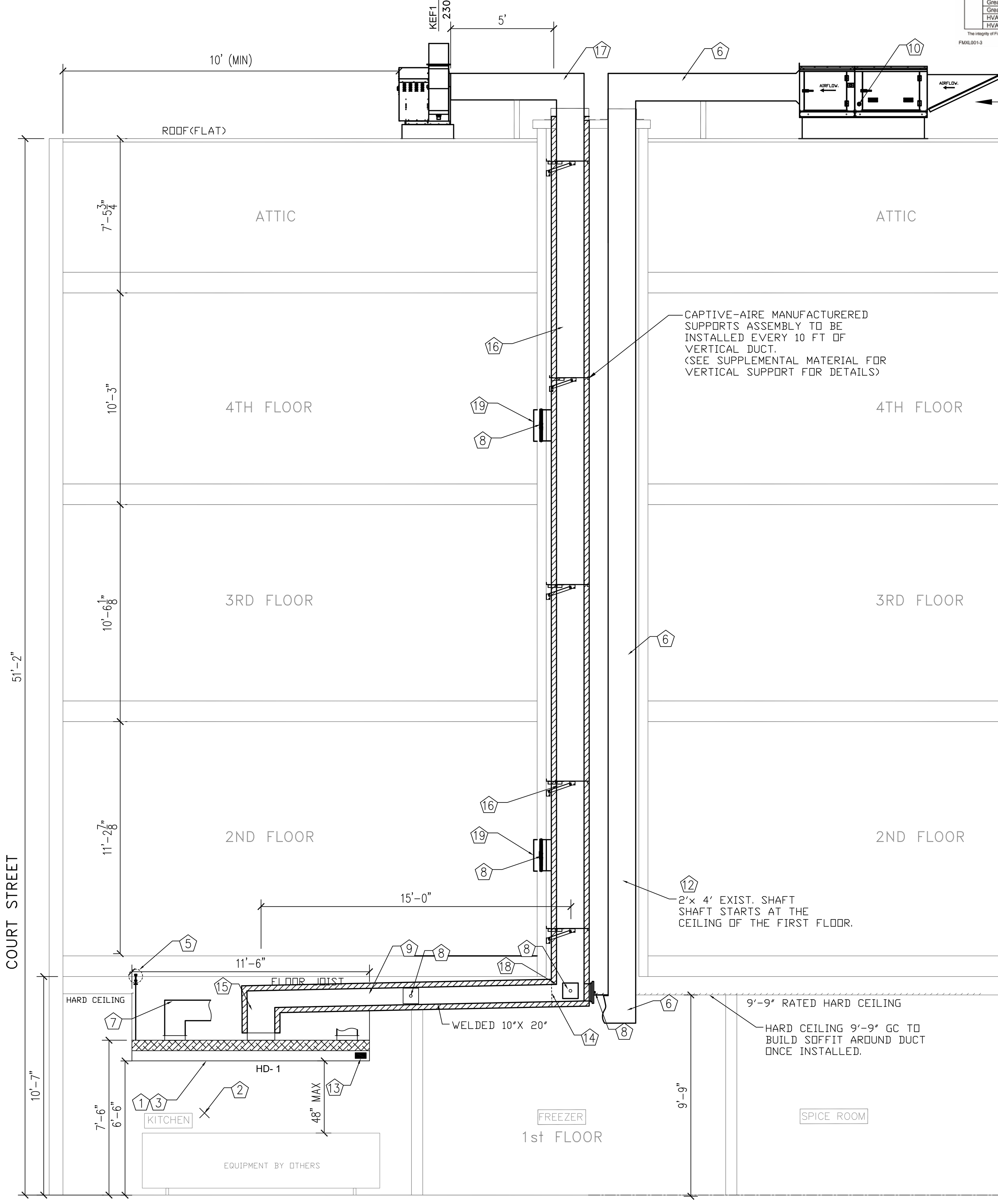


HOOD SUPPORT REQUIREMENTS	
HOOD LENGTH	NUMBER OF HANGING POINTS
11'-6"	4

DETAIL #3: HANGING ROD TO UNISTRUT

(HARDWARE BY INSTALLER)





KEF1 2300 CFM
KMUA1 2070 CFM
10' (MIN)
5'
ROOF(FLAT)
ATTIC
4TH FLOOR
3RD FLOOR
2ND FLOOR
1st FLOOR
KITCHEN
FREEZER
SPICE ROOM
COURT STREET
CAPTIVE-AIRE MANUFACTURERED SUPPORTS ASSEMBLY TO BE INSTALLED EVERY 10 FT OF VERTICAL DUCT. (SEE SUPPLEMENTAL MATERIAL FOR VERTICAL SUPPORT FOR DETAILS)
2'x 4' EXIST. SHAFT SHAFT STARTS AT THE CEILING OF THE FIRST FLOOR.
9'-9" RATED HARD CEILING
HARD CEILING 9'-9" GC TO BUILD SOFFIT AROUND DUCT ONCE INSTALLED.
WELDED 10"X 20"
FLOOR JOIST
HARD CEILING
HD-1
EQUIPMENT BY OTHERS
15'-0"
11'-6"
51'-2"

ELEVATION VIEW - HOOD #1 (HD-1)
SCALE: 1/4" = 1'-0"

Key Notes

1. CAPTIVE-AIRE ETL LISTED HOOD IN ACCORDANCES TO UL710 SEE CAPTIVE-AIRE SHOP DWGS.
2. STAINLESS STL. WALL PANEL BELOW & RIGHT & LEFT OF HOOD FROM FLOOR TO CEILING. ALSO 18" PASS THE HOOD TO LEFT & RIGHT (MINIMUM). (SUPPLIED BY GC)
3. CANOPY TYPE HOOD. TO OVERHANG ON FRONT BY 6" FROM COOKING SERVICE (SEE CAPTIVE-AIRE LISTING SHEET).
4. BRICK WALL WITH METAL STUD & SHEET ROCK
5. HANGING ROD (SEE DETAILS #1, #2 & #3)
6. 16"X 14" (OR EQUIV) DUCT TO KMUA1 ON ROOF.
7. 10"X 28" SUPPLY RISERS FOR SUPPLY PLENUM FOR HOOD. (QTY 3)
8. GREASE CLEANOUT DOOR (REMOVABLE BY HAND)
9. 10"X 20" WELDED DUCT WITH QTY (2) LAYERS OF LISTED FIRE WRAP FOR ZERO CLEARANCE. (SEE FIREWRAP SPEC'S)
10. GAS FIRED KMUA1, GAS CONNECTED BY PLUMBER. ACCESS SYSTEM TO SYSTEM ON THIS SIDE.
11. HOOD TO BE SUPPLIED WITH LISTED 12" CABINET TO HOUSE THE UL300 ANSUL SYSTEM & LISTED CAPTIVE-AIRE CONTROL PANEL (SEE C.A.S. DRAWINGS).
12. EXISTING SHAFT BY LANDLORD FROM 1ST FLOOR TO ROOF. SHAFT UTILIZE FOR HOODS GREASE DUCT ONLY.
13. FAN AND LIGHT SWITCHES.
14. TRANSITION FROM WELDED DUCT TO CAPTIVE-AIRE LISTED 16" DIA GREASE DUCT. WELD DUCT'S TOGETHER.
15. TOP OF DUCT AT 104"
16. 16" DIA CAPTIVE-AIRE LISTED FACTORY BUILT GREASE DUCT UP SHAFT WITH (2) LAYERS OF FIRE WRAP.
17. CAPTIVE-AIRE LISTED FACTORY BUILT GREASE DUCT TO FAN. TO BE 18" MIN OFF ROOF.
18. TOP OF DUCT AT 108" TO ALLOW 1/4":12" SLOPE BACK TO HOOD.
19. ACCESS DOOR IN SHAFT BY GC.

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:
ETL SANITATION LISTED
ETL LISTED FILE# 3054804-001

HOOD SYSTEM IS FABRICATED & DESIGNED PER UL-710 STANDARDS

RESPONSIBILTY MATRIX

A) REQUIREMENTS FOR FOOD SERVICE CONTRACTOR (F.E.C.)
1) HOOD, FANS, & ALL ASSOCIATED EXHAUST & SUPPLY DUCTWORK IS PROVIDED & INSTALLED BY FOOD SERVICE CONTRACTOR
2) HOOD SYSTEM TO BE STARTED UP BY CONTRACTOR
   A) SMOKE TEST ON THE HOODS IN FRONT OF THE OWNER TO ENSURE SATISFACTION WITH COOKING EQUIPMENT ON.
3) HOOD INSTALLER TO START UP KMUA HEATER OF KMUA, THEN FILL OUT FACTORY STARTUP
4) ALL WALL STAINLESS FOR UNDER & AROUND HOODS SHALL BE INSTALLED ALSO.
5) ASSIST IN PROVIDING & SUBMITTING IN HOOD & ANSUL PERMIT DRAWINGS.
6) MOUNT FANS AS SHOWN ON DRAWINGS INCLUDING KMUA.
7) INSTALLER TO ENSURE ALL HOOD AND FAN ACCESSORIES ARE INSTALLED SUCH AS GREASE CUPS, HINGE KITS, FILTER INTAKES, AND ANY OTHER MISC. ITEMS SHIPPED WITH THE PRODUCT.
8) INSTALL ALL LISTED GREASE DUCT FROM CAPTIVE-AIRE SPECIFICATIONS .

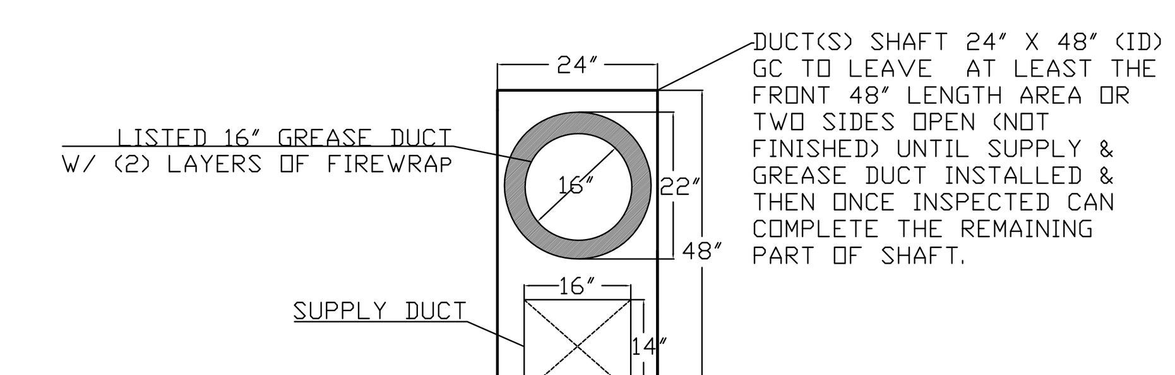
B) NOTES (REQUIREMENTS) FOR ELECTRICIAN:
1) FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (WALL MOUNTED PANEL) 3 PHASE (208V) POWER FOR EXHAUST & SUPPLY FANS AND THEN FROM CAPTIVE AIRE PANEL TO THE DISCONNECT ON THE EXHAUST & KMUA FANS. THE POWER MUST BE IN SEPARATE CONDUITS DUE TO THE VFD'S.
2) WIRE 120V, 1 PHASE FROM SF1/N1 OF HD PANEL TO KMUA UNIT. ALSO WIRE A 18-4 GA WIRE FROM HOOD PANEL TO KMUA UNIT ON ROOF FOR HEATER & DAMPER INTERLOCK.
3) FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (HOOD MOUNTED) 1 PHASE, 120, 20 AMP CIRCUIT TO BE USED FOR LIGHTS & CONTROLS CIRCUITRY. WIRE THE LIGHTS TO THE HOOD CONTROL PANEL.
4) WIRE RED/BROWN WIRES ON ANSUL CABINET TO CAPTIVE-AIRES CONTROL PANEL C1 & AR1 TERMINALS.
5) FIELD WIRE THE DUCT SENSORS LOCATED IN EXHAUST COLLARS TO CAPTIVE AIRE CABINET. CAPTIVE AIRE SUPPLIES THE WHITE STAT WIRE & SHIPPED IN CABINET
6) FIELD WIRE & INSTALL ROOM SENSOR SUPPLIED BY CAPTIVE AIRE. MOUNT SENSOR 6' AWAY FROM HOOD UP HIGH. STAT WIRE PROVIDED BY CAPTIVE AIRE.
7) FIELD WIRE THE BUILDING ALARM SYSTEM (IF APPLICABLE) INTO THE ANSUL MICRO SWITCH LOCATED AT THE RIGHT END OF THE HOOD. IF NO BUILDING ALARM, INSTALL THE CAPTIVE AIRE SUPPLIED 120V HORN/LIGHT STROBE & WIRE TO ANSUL PANEL.
8) ELECTRICIAN MUST CHECK FAN ROTATION BY LOOKING AT YELLOW ARROWS MARKED ON FANS. IF ROTATION IS WRONG, REVERSE ANY 2 OF THE 3 PHASE LEADS ON THE LOAD SIDE.
9) IF ANY ELECTRIC UNDER HOOD, BREAKER MUST BE OF SHUNT TRIP TYPE & ELECTRICIAN TO WIRE FROM ST & N1 TERMINALS OF HOOD PANEL TO SHUNT TRIP DEVICE BY OTHERS.

C) FIELD NOTES (OTHER TRADES)
1) SITE PLUMBER TO INSTALL THE CAPTIVE-AIRE PROVIDED ANSUL GAS VALVE FOR EACH SYSTEM. PLUMBER TO FIELD INSTALL GAS VALVE INLINE WITH THE GAS PIPING GOING TO THE COOKING EQUIPMENT OF THE SYSTEM. PLUMBER TO COORDINATE WITH THE F.E.C. FOR ALL HOOK UP OF GAS COOKING EQUIPMENT & ENSURE ALL GAS IS VENTED ONCE HOOKED UP. USE GAS REGULATORS TO MAINTAIN 7-14" OF GAS PRESSURE.
2) PLUMBER TO SUPPLY & INSTALL GAS LINE TO MUA ON ROOF.

D) GENERAL CONTRACTOR (GC) RESPONSIBILITIES:
1) GC IS RESPONSIBLE TO HOLD A COORDINATION MEETING WITH ALL TRADES TO ENSURE UNDERSTANDING OF REQUIREMENTS AND MAKE SURE THERE ARE NO CONFLICTS THROUGHOUT THE PROJECT & ASSIST AS REQUIRED
2) GC IS RESPONSIBLE FOR ANY BUILDING CONSTRUCTION CHANGES OR STRUCTURAL REQUIREMENTS TO INCLUDE BUT NOT LIMITED TO: HOOD WALL READY TO ACCEPT WALL STAINLESS & HOOD, ANY REQUIREMENTS TO HEAD OFF JOIST FOR DUCT ROUTING, ANY STRUCTURAL SUPPORTS REQUIRED TO SHORE UP BUILDING OR STRUCTURE, AND ANY FINISHED CEILING WORK, CEILING WORK, DEMO, OR COSMETIC & PATCHING WORK.
3) PROVIDE A WORKING CONSTRUCTION SCHEDULE TO ALL TRADES.

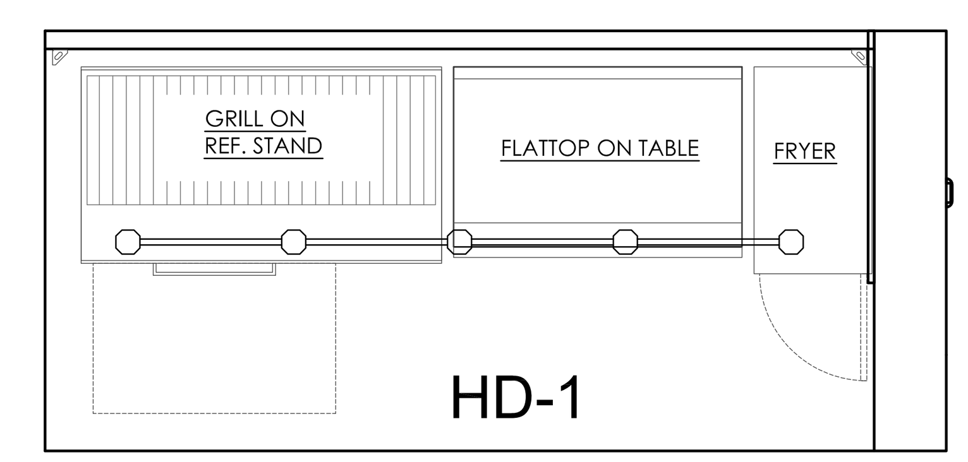
GREASE DUCT SPECIFICATION – SINGLE WALL

FURNISH SINGLE-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 FOR VENTING AIR AND GREASE VAPORS FROM COMMERCIAL COOKING OPERATIONS AS DESCRIBED IN NFPA-96.
THE DUCT WALL SHALL BE CONSTRUCTED OF .036 THICK TYPE 430 STAINLESS STEEL AND BE AVAILABLE IN DIAMETERS 8" THROUGH 24".
ALL SUPPORTS, FAN ADAPTERS, HOOD CONNECTIONS, FITTINGS AND EXPANSION JOINTS REQUIRED TO INSTALL GREASE DUCT SHALL BE INCLUDED.
ROOF PENETRATIONS SHALL COMPLY WITH LISTED CLEARANCE TO COMBUSTIBLES, SEE "CLEARANCE TO COMBUSTIBLES" GUIDE FOR DETAILS.
THE GREASE DUCT WILL TERMINATE AT THE FAN ADAPTER PLATE, WILL BE FULLY WELDED TO THE FAN ADAPTER PLATE AND THE FAN ADAPTER PLATE WILL BE FASTENED TO THE CURB USING A SUITABLY SIZED FASTENER PROVIDED BY OTHERS; SEE PAGE 12 OF THE "INSTALLATION, OPERATION AND MAINTENANCE MANUAL" FOR DETAILS.
GREASE DUCT JOINTS SHALL BE HELD TOGETHER BY MEANS OF FORMED VEE CLAMPS AND SEALED WITH 3M FIRE BARRIER 2000+. SCREWS USED TO SECURE THE VEE CLAMPS SHALL BE OF THE HEX-HEAD TYPE WITH FLANGED STOPS AND TAPERED "LEAD IN" THREADS FOR EASY STARTING. NUTS SHALL BE RETAINED BY MEANS OF A FREE-FLOATING CAGE TO ALLOW EASY ALIGNMENT.
SINGLE-WALL GREASE DUCT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S "INSTALLATION, OPERATION AND MAINTENANCE MANUAL", ETL LISTING AND STATE AND LOCAL CODES.
GREASE DUCT INSTALLED OUTSIDE OF THE BUILDING SHALL BE PROTECTED AGAINST ACCIDENTAL DAMAGE OR VANDALISM.
SUPPORT VERTICALLY INSTALLED GREASE DUCT FROM THE BUILDING STRUCTURE USING RIGID STRUCTURAL SUPPORTS. ANCHOR SUPPORTS TO THE STRUCTURE BY WELDING OR BOLTING STEEL EXPANSION ANCHORS OR CONCRETE INSERTS. SUPPORT HORIZONTALLY INSTALLED GREASE DUCT FROM THE BUILDING STRUCTURE USING ABOVE METHOD OR USE DUCT MATE, WIRE ROPE & CLUTCHERS, PARTNUMBERS WR20 & CL20. 1/2" THREADED ROD AND SADDLES MAY ALSO BE USED FOR THE SUPPORT OF HORIZONTAL GREASE DUCT.
FANS SHALL BE SUPPORTED INDEPENDENTLY FROM THE GREASE DUCT SECTIONS. PROTECT GREASE DUCT FROM TWISTING OR MOVEMENT CAUSED BY FAN TORQUE OR VIBRATION.



LISTED 16" GREASE DUCT W/ (2) LAYERS OF FIREWRAP
SUPPLY DUCT
24"
16"
22"
48"
14"
DUCT(S) SHAFT 24" X 48" (ID) GC TO LEAVE AT LEAST THE FRONT 48" LENGTH AREA OR TWO SIDES OPEN (NOT FINISHED) UNTIL SUPPLY & GREASE DUCT INSTALLED & THEN ONCE INSPECTED CAN COMPLETE THE REMAINING PART OF SHAFT.

JOB: AVRIL MEAT MARKET (EXHAUST & SUPPLY DUCT SHAFT SIZE REQUIREMENTS - HOOD)



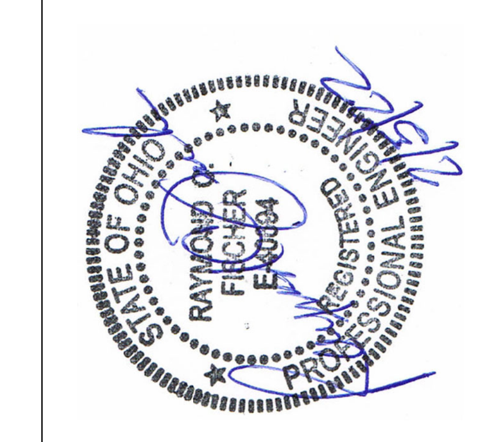
COOKING EQUIPMENT LAYOUT

FISCHER ENGINEERING SERVICES, LLC
MECHANICAL DESIGN & CONSULTING SERVICES
3872 Nottingham Ct.
Cleves, Ohio 45002
Ph: 513-675-1559

DATE: 02/07/22
DRAWN BY: JAH
SCALE: NONE
REVISION | DATE

Arvil Bleh Meat Market
33 E Court Street
Cincinnati, OH 45202
NEW COMMERCIAL HOOD IN KITCHEN

MANAGED BY:
AIR SOLUTIONS, INC.
1329 E. KEMPER RD
CINCINNATI, OH 45246
PH: (513) 860-5555



SHEET NO: H-1