HOOD INFORMATION – JOB#5023373

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	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1	HD 1	5424 ND-2	CAPTIVEAIRE	6' 0"	450 DEG	I	MEDIUM	150	900			4"	12"	900	1413	-0.288"	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	LOCATION	SIZE
1	HD 1	SS BAFFLE WITH HANDLES	4	16"	16"	30%	3	L55 SERIES E26	NO	RIGHT	12"x54"x24"

UTILITY CABINET(S) FIRE SYSTEM TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
TANK FS	4.0	SC-110110MA	1 LIGHT 1 FAN	YES	536 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	HD 1	FIELD WRAPPER 15.00" HIGH FRONT, LEFT, RIGHT.
		RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		SENSOR-CV.

EXHAUST FAN INFORMATION – JOB#5023373

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF 1	1	DU50HFA	CAPTIVEAIRE	1110	0.850	1472	TEAO-ECM	0.500	0.3300	1	115	6.3	422 FPM	77	15.4

FAN OPTIONS

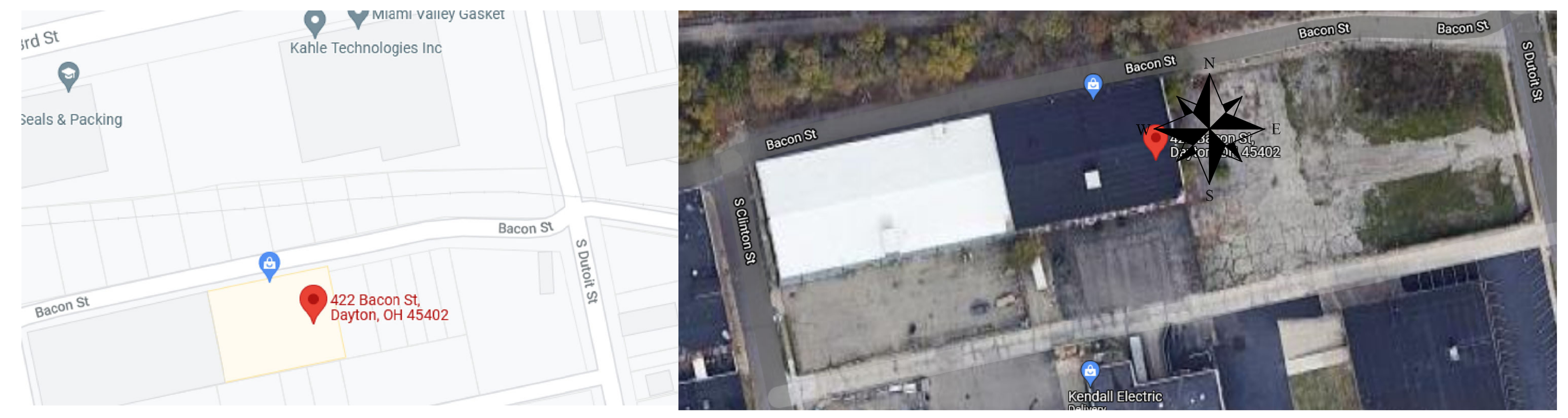
FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF 1	1	GREASE BOX.
		1	ECM WIRING PACKAGE – PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.
		1	2 YEAR PARTS WARRANTY.

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						

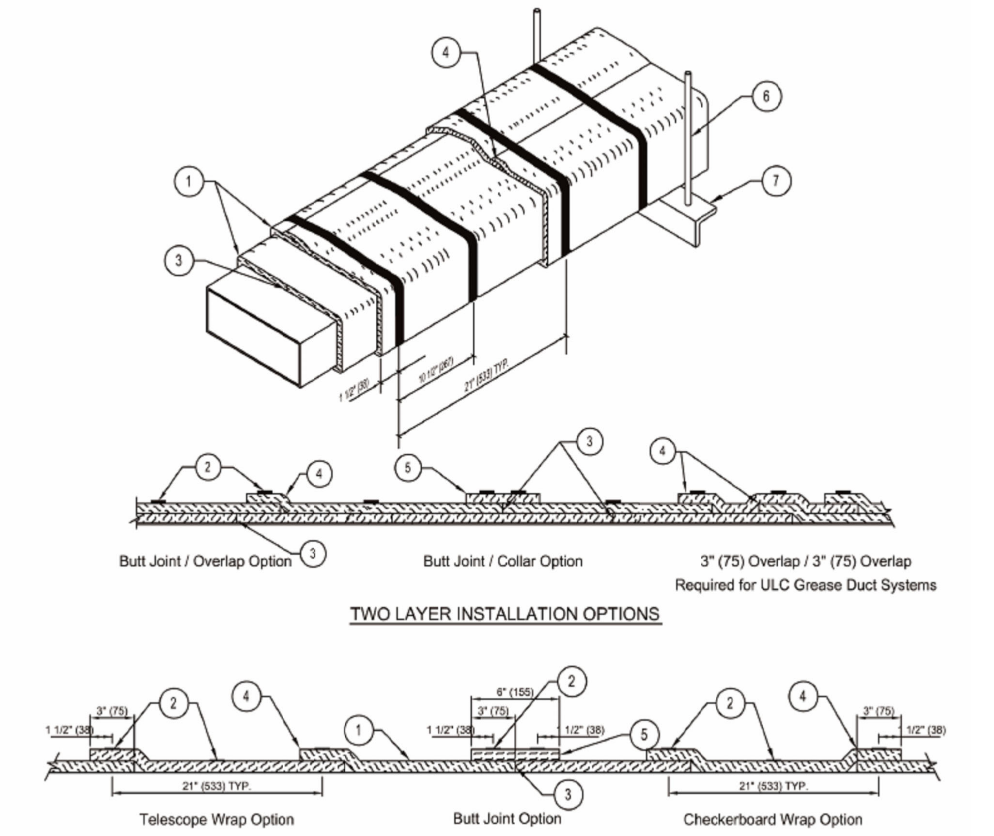
CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF 1	34 LBS	CURB	19.500"W X 19.500"L X 24.000"H ALONG LENGTH, RIGHT VENTED HINGED.



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



System Details

FIGURE 1

1	Two Layers of FireMaster FastWrap XL Blanket for Grease Duct Enclosures One Layer of FireMaster FastWrap XL Blanket for Air Ventilation Duct Enclosures
2	Steel banding minimum 1/2" (13) wide by 0.015" (0.4) thick.
3	Tight butt joints on inner layer (ULC Grease Duct requires 3" (75) overlap)
4	Min. 3" (75) overlap on perimeter and between adjacent blanket on outside layer
5	Optional 6" FireMaster FastWrap XL collar

System Details	6 - Hangers	7 - Trapeze Supports
Grease Duct - per ASTM E2336	Min 3/8" (5) Rod	Min. 2"(50) x 2" (50) x 1/8" (3) angle
Grease Duct - per ULC Protocol	Min 1/2" (13) Rod	Min. 2"(50) x 2" (50) x 3/16" (5) angle
Grease Duct - per ULC Protocol with Maximum Area155 in2 (0.1 m2)	Min 3/8" (5) Rod	Min. 1-1/2" (38) x 1-1/2" (38) x 5/32" (4) angle
HVAC Duct - per ISO 6944	Min 1/2" (13) Rod	Min. 2"(50) x 2" (50) x 3/16" (5) angle
HVAC Duct - per ISO 6944 with Maximum Area 387 in2 (0.25 m2)	Min 3/8" (5) Rod	Min. 1-1/2" (38) x 1-1/2" (38) x 5/32" (4) angle

The integrity of Firemaster duct systems is limited to the quality of the installation.

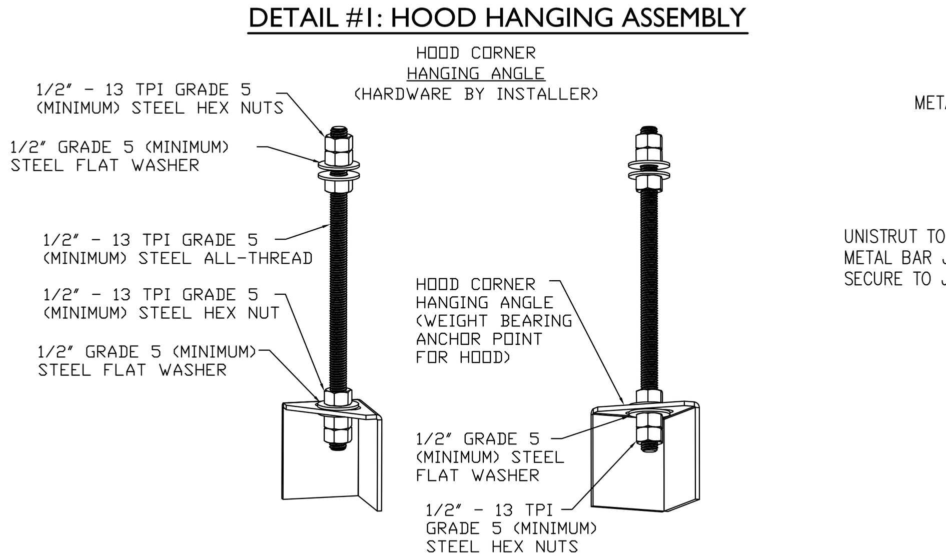
FMXL001-3

AIR BALANCE SCHEDULE

TAG	ROOMS SERVED	O.A. CFM	EXHAUST CFM
KEF-1	KITCHEN	–	– 900
HVAC	BUILDING	+ 900 (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

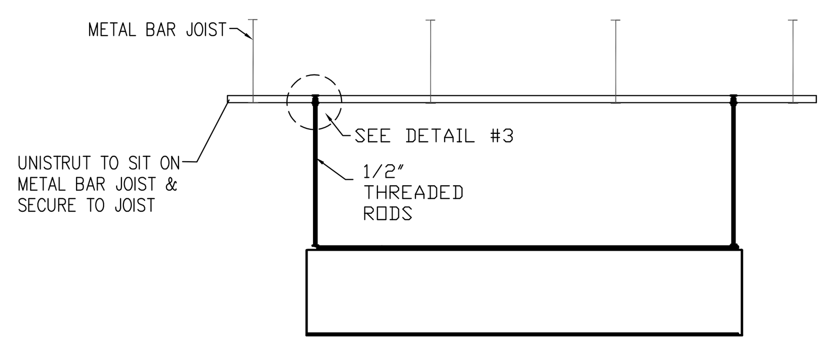
DETAIL #1: HOOD HANGING ASSEMBLY



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.

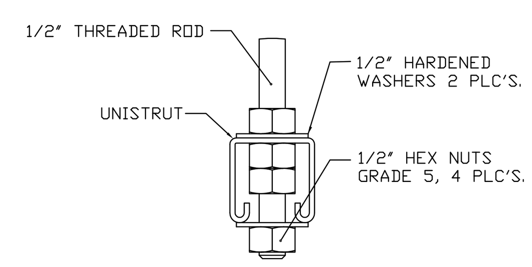
DETAIL# 2: HOOD SUPPORT

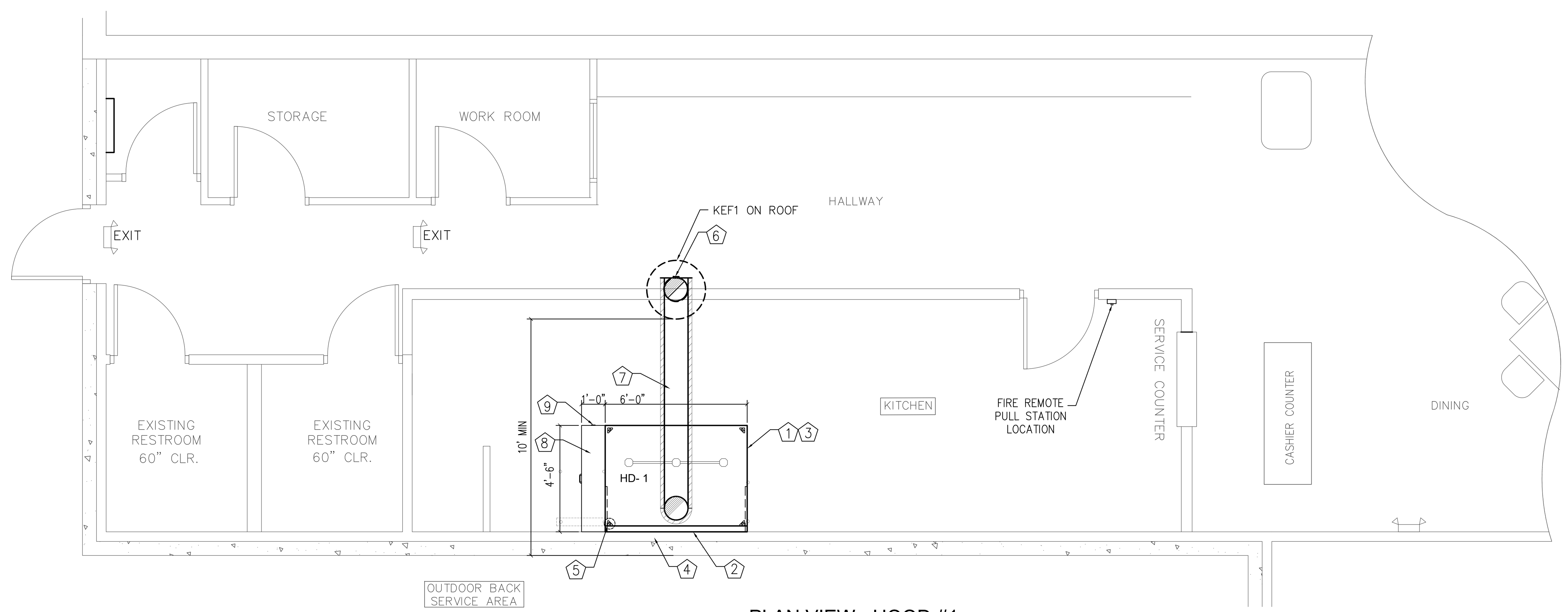


HOOD SUPPORT REQUIREMENTS	
HOOD LENGTH	NUMBER OF HANGING POINTS
6'	4

DETAIL #3: HANGING ROD TO UNISTRUT

(HARDWARE BY INSTALLER)



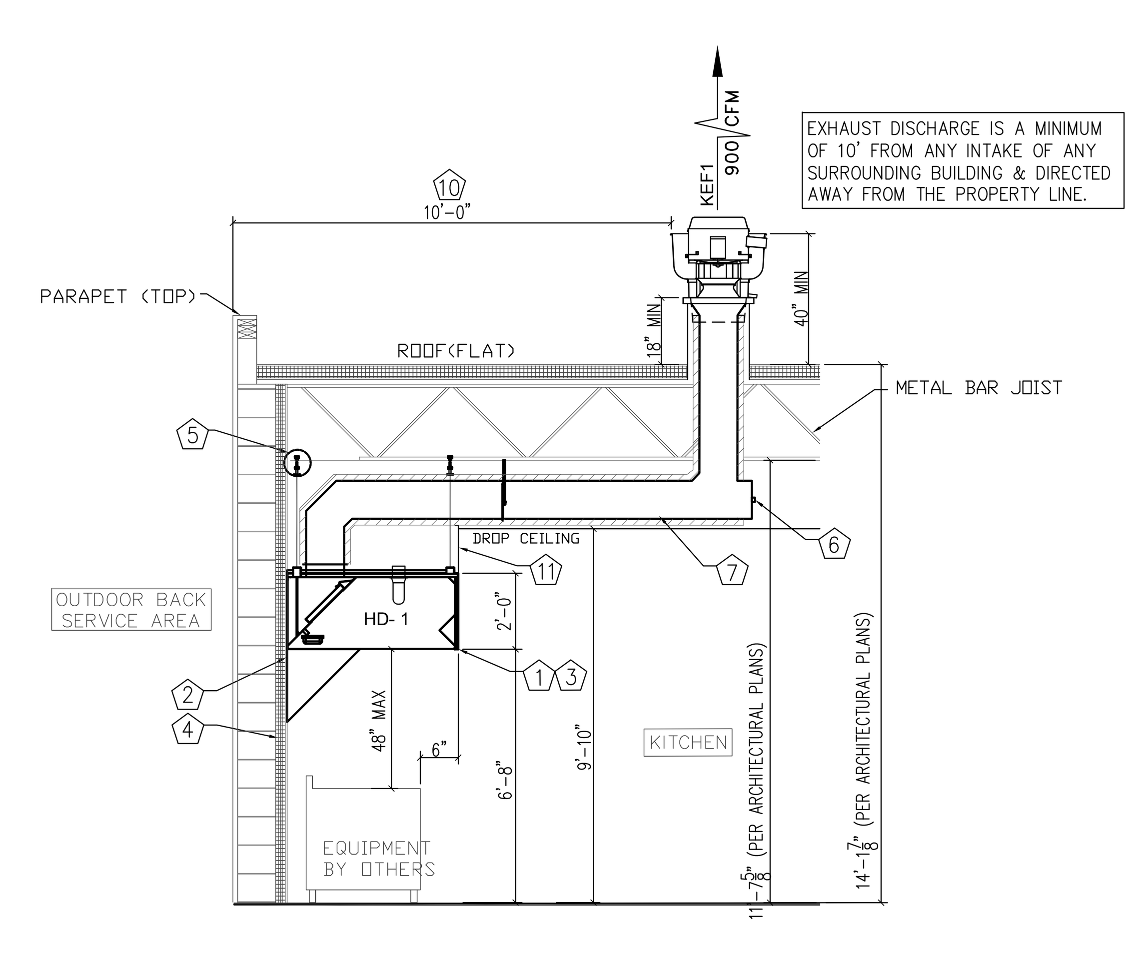


PLAN VIEW - HOOD #1

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

KEY NOTES

1. CAPTIVE-AIRE ETL LISTED HOOD IN ACCORDANCE TO UL710 SEE CAPTIVE-AIRE SHOP DWGS.
2. WALL BELOW HOOD TO BE CLEANABLE AND NONCOMBUSTIBLE MATERIAL.
3. CANOPY TYPE HOOD. TO OVERHANG ON FRONT BY 6" FROM COOKING SERVICE (SEE CAPTIVE-AIRE LISTING SHEET).
4. METAL STUD & SHEET ROCK
5. HANGING ROD (SEE DETAILS #1, #2 & #3)
6. GREASE CLEANOUT DOOR (REMOVABLE BY HAND)
7. 12" DIA CAPTIVE-AIRE LISTED FACTORY BUILT GREASE DUCTWORK (SEE SPEC'S ON THIS PAGE) WITH (2) LAYERS OF OF LISTED FIREWRAP.
8. HOOD TO BE SUPPLIED WITH LISTED 12" CABINET TO HOUSE THE UL300 ANSUL SYSTEM & LISTED CAPTIVE-AIRE CONTROL PANEL (SEE C.A.S. DRAWINGS).
9. FAN AND LIGHT SWITCHES.
10. EXHAUST KEF1 TO BE MOUNTED 10' OFF EDGE OF BUILDING.
11. ENCLOSURE TO 9'10" DROP CEILING.



EXHAUST DISCHARGE IS A MINIMUM OF 10' FROM ANY INTAKE OF ANY SURROUNDING BUILDING & DIRECTED AWAY FROM THE PROPERTY LINE.

ELEVATION VIEW - HOOD #1 (HD-1)

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

RESPONSIBILTY MATRIX

A) REQUIREMENTS FOR FOOD SERVICE CONTRACTOR (F.E.C./OWNER)
1) HOOD & ALL ASSOCIATED EXHAUST IS PROVIDED & INSTALLED BY OWNER REPRESENTATIVE.
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) ALL WALL STAINLESS FOR UNDER & AROUND HOODS SHALL BE INSTALLED ALSO.
4) HOOD & ANSUL PERMIT DRAWINGS TO BE PROVIDED BY THE OWNER REPRESENTATIVE AND SUBMITTED UNLESS REQUESTED DIFFERENTLY BY ARCHITECT OR OWNER.
5) SET CURB & FANS AS SHOWN ON DRAWINGS
6) 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.
7) INSTALL CAPTIVE-AIRE LISTED STAINLESS STEEL GREASE DUCT FROM HOOD TO FAN.
8) INSTALL QTY (2) LAYERS OF FIREWRAP ON GREASE DUCT.

B) NOTES (REQUIREMENTS) FOR ELECTRICIAN:
1) FIELD WIRE FROM BUILDING PANEL 1 PHASE (115V) POWER FOR EXHAUST FAN TO THE DISCONNECT ON THE EXHAUST.
2) THEN WIRE THE C.A.S. SUPPLIED BRAIDED WIRE FROM EXHAUST FAN TO PIA & PIB OF THE HOOD CONTROL PANEL AT HOOD.
3) FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (HOOD MOUNTED) 1 PHASE, 115V. CIRCUIT TO BE USED FOR LIGHTS & CONTROLS CIRCUITRY.
4) WIRE RED/BROWN WIRES ON ANSUL CABINET TO CAPTIVE-AIRES CONTROL PANEL C1 & AR1 TERMINAL IF NOT ALREADY DONE AT FACTORY.
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.
8) 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.

D) GENERAL CONTRACTOR (GS/OWNER) RESPONSIBILITIES:
1) GC/OWNER 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/OWNER 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. (ANY REQUIRED HOLES IN BUILDING)
3) PROVIDE A WORKING CONSTRUCTION SCHEDULE TO ALL TRADES. ALSO TO ENSURE AREA IS COMPLETELY CLEARED OUT TO ALLOW WORK TO BE PREFORMED.

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, PART NUMBERS 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.

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

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

DATE: 10/05/21

DRAWN BY: JAH

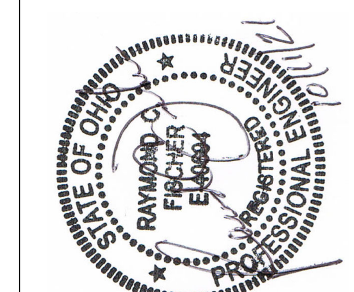
SCALE: NONE

REVISION	DATE

CHICKA-WING

1875 S Limestone St
Springfield, OH 45506
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