EXHAUST FAN INFORMATION – JOB#4430483

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF1	1	USBI36DD-RM	8269	2.250	729	ODP,PREMIUM	10.000	4.6660	3	208	28.4	1348 FPM	1335	27
3	EF2-TLTS	1	DR33HFA	650	0.600	1337	TEAO-ECM	0.333	0.1610	1	115	4.3		53	10

DOAS/RTU FAN SCHEDULE – JOB#4430483

FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	ESP	RPM	HP	BHP	ø	VOLT	MCA	MOCP	WEIGHT (LBS)	SONES
2	RTU-DOAS1	1	CASRTU4-1.600-30-30T-DOAS	30P-4	0	5800	5800	0.750	731	10.000	3.4480	3	208	157.4A	175A	4926	8.1

DOAS/RTU HEATING SCHEDULE

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	RTU-DOAS1	548100	438480	70°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	80

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF1	35 LBS	RAIL	4.000"W X 69.000"L X 12.000"H 2.000-12.000 PITCH ALONG WIDTH, COMES AS A SET OF 2.
2	# 2	RTU-DOAS1	146 LBS	CURB	80.000"W X 111.000"L X 12.000"H 2.000-12.000 PITCH ALONG WIDTH, RIGHT INSULATED 16 GAUGE.
3	# 3	EF2-TLTS	20 LBS	CURB	19.500"W X 19.500"L X 16.000"H 2.000-12.000 PITCH RIGHT.

DOAS/RTU COOLING SCHEDULE

FAN UNIT NO	TAG	COMPRESSOR			OUTDOOR FAN				INDOOR COIL		OUTSIDE AIR DB TEMP	OUTSIDE AIR WB TEMP	MIXED AIR DB TEMP	MIXED AIR WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	LEAVING DP TEMP	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	REHEAT LEAVING DB TEMP	REHEAT LEAVING WB TEMP	DESIRED REHEAT CAPACITY	MAX REHEAT CAPACITY	REHEAT LEAVING RELATIVE HUMIDITY	MOISTURE REMOVAL RATE	IEER
		TONNAGE	VOLTAGE	ø	MOTOR VOLTAGE	MOTOR ø	MOTOR FREQUENCY	MOTOR QTY	ROWS	FACE AREA																	
2	RTU-DOAS1	30	190-240	3	200-240	3	60	3	6	25.3 SQFT	82.5°F	77.0°F	82.5°F	77.0°F	59.9°F	58.6°F	57.9°F	384.0 MBH	141.4 MBH	242.6 MBH	70.0°F	64.2°F	63.3 MBH	260 MBH	73	213.6 LBS/HR	17.8

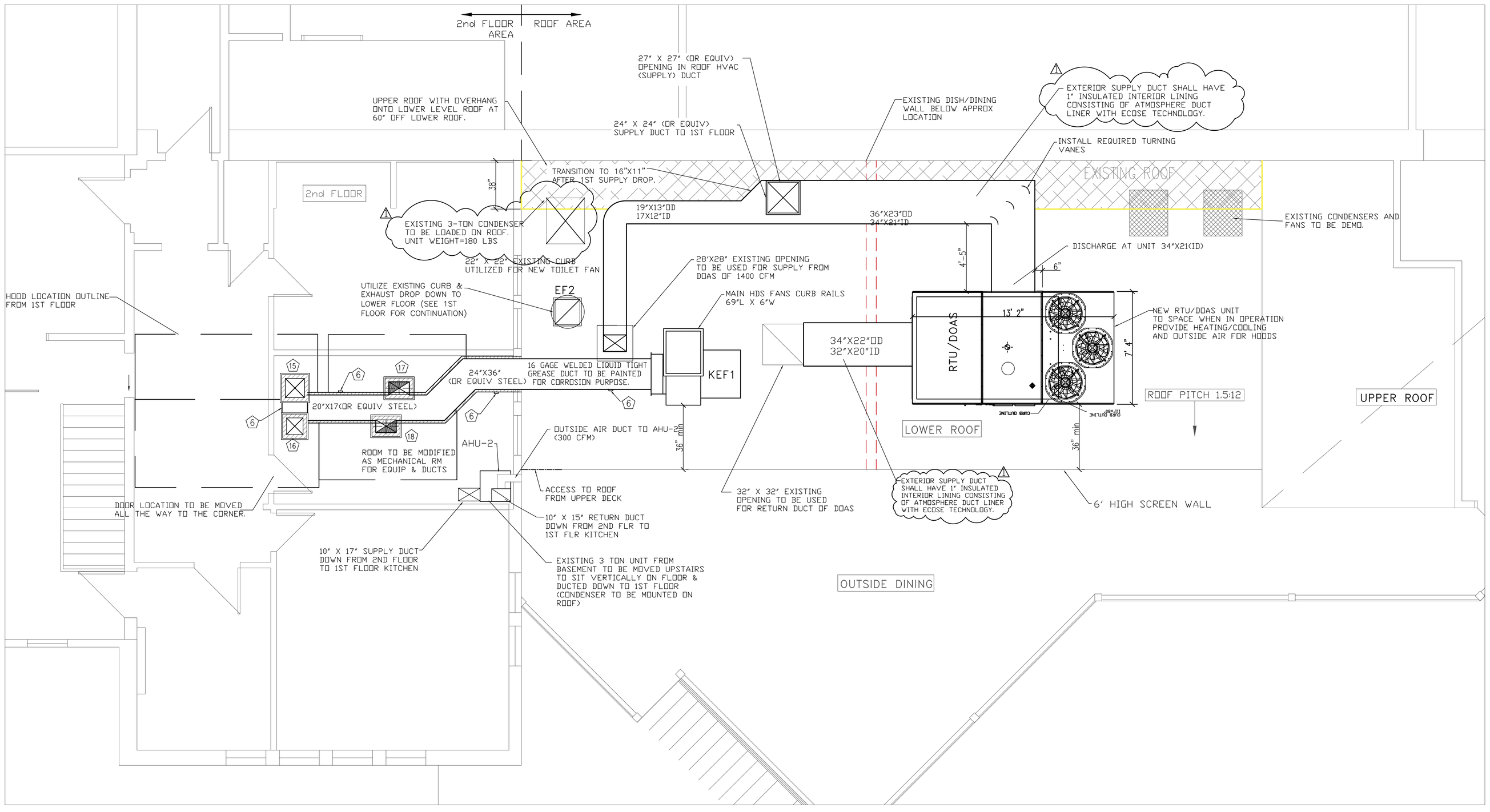
AIR BALANCE SCHEDULE

TAG	ROOMS SERVED	O.A. CFM	EXHAUST CFM
KEF-1	KITCHEN HOODS	–	– 8269
EF2-TLTS	BATHROOM	–	– 775
DOAS\RTU	KITCHEN/BATHROOM	+ 5800	
AHU2	KITCHEN	+ 300	
AHU3	LOWER LEVEL	+ 500	
AHU4/5	DINING/BAR	+ 3000	
NET		+ 556 CFM	

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

KEY NOTES

1. CAPTIVE-AIRE ETL LISTED HOOD IN ACCORDANCE TO UL710 SEE CAPTIVE-AIRE SHOP DWGS.
2. STAINLESS STL. WALL PANEL BELOW ON 3 WALL & RIGHT & LEFT OF HOOD FROM FLOOR TO CEILING. ALSO 18" PASS THE HOOD TO LEFT & RIGHT (MINIMUM).
3. CANOPY TYPE HOOD. TO OVERHANG ON FRONT BY 6" FROM COOKING SERVICE ON EXPOSED SIDES ONLY (SEE CAPTIVE-AIRE LISTING SHEET).
4. METAL STUD & SHEET ROCK HALF WALL WITH STAINLESS STEEL PANELS.
5. HANGING ROD (SEE DETAILS #1, #2 & #3)
6. GREASE CLEANOUT DOOR (REMOVABLE BY HAND)
7. 22"X 10" (OR EQUIV) 16 GA STEEL GREASE DUCT (WELDED LIQUID-TIGHT) WITH QTY (2) LAYERS OF LISTED FIRE WRAP FOR ZERO CLEARANCE. (SEE FIREWRAP SPEC'S)
8. 17"X 10" (OR EQUIV) 16 GA STEEL GREASE DUCT (WELDED LIQUID-TIGHT) WITH QTY (2) LAYERS OF LISTED FIRE WRAP FOR ZERO CLEARANCE. (SEE FIREWRAP SPEC'S)
9. LOCKING TYPE BALANCING DAMPERS AT THESE LOCATIONS. ALL OTHER LOCATIONS TO HAVE BUTTERFLY TYPE DAMPERS INSTALLED IN EACH AIR DEVICE.
10. UL 300 ANSUL FIRE SYSTEM FOR HOODS TO BE WALL MOUNTED -PERMIT FOR ANSUL BY SILCO FIRE DISTRIBUTION (LOCAL INSTALLER).
11. CAPTIVE-AIRE LISTED CONTROL PANEL FOR HOODS & FAN CONTROLS WITH ALL INTERLOCKED. (SEE CAPTIVE-AIRE DRAWINGS FOR DETAIL)
12. FULL VERTICAL END PANELS (42" WIDE) TO FLOOR ON BOTH HOODS.
13. 6"X 11"ID (9"X14"OD) HOOD SUPPORT BEAM WITH CEMENT BOARD & 1" INSULATED FIRE RATED STAINLESS STEEL PANELS ENCAPSULATING ALL (4) SIDES OF BEAM.
14. CAPTIVE-AIRE FACTORY BUILT INSULATED STAND OFFS OF SIDES OF HOODS & TOP OF HOODS FOR ZERO CLEARANCE TO COMBUSTIBLES (SEE CAPTIVE-AIRE LISTING INFO)
15. DUCT-15"X15" DUCT W/WRAP-21"X21 HOLE-23"X23"
16. DUCT-13"X13" DUCT W/WRAP-19X19" HOLE-21"X21"
17. DUCT-10"X16" DUCT W/WRAP-16X22" HOLE-18"X24"
18. DUCT-10"X17" DUCT W/WRAP-16X23"
19. 6" WOOD SUPPORT BEAM PERPENDICULAR TO HOODS WITH VERTICAL BEAM SUPPORT IN MULTIPLE AREAS TO LOWER FOUNDATION.
20. NON-COMBUSTIBLE METAL STUD 3 WALL BETWEEN HOODS WITH STAINLESS PANELS.



PLAN VIEW - 2nd FLOOR AND ROOF

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

Diffuser Key

- PERFORATED DIFFUSER
- EGG-CRATE RETURN
- 4 WAY RETURN 24"x24"
- EXHAUST GRILL 12"x12"
- 4 WAY RETURN 12"x12"

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: 513-941-4188 Cell: 513-675-1559 Fax: 513-941-4414

RESPONSIBILTY MATRIX

A) REQUIREMENTS FOR FOOD SERVICE CONTRACTOR (F.E.C.)
1) DOAS\RTU WITH AIR DEVICES, HOOD, FANS, & ALL ASSOCIATED EXHAUST & SUPPLY DUCTWORK IS PROVIDED & INSTALLED BY FOODSERVICE CONTRACTOR
2) DOAS & 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) INSTALLER TO SUPPLY ALL INSULATED SUPPLY DUCT & REQUIRED DIFFUSERS FOR HVAC SYSTEM SERVED BY DOAS.
4) ALL WALL STAINLESS FOR UNDER & AROUND HOODS SHALL BE INSTALLED ASO.
5) PROVIDE & SUBMITTING IN HOOD, HVAC & ANSUL PERMIT DRAWINGS.
6) MOUNT FANS AS SHOWN ON DRAWINGS INCLUDING DOAS/RTU.
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 LIQUID TIGHT WELDED GREASE DUCT WITH (2) LAYERS OF FIRE WRAP FOR ALL DUCT INSIDE BUILDING.
9) INSTALL NEW BATHROOM FAN ON EXISTING CURB & RUN ALL EXHAUST GRILLS TO NEW BATHROOMS ON 1ST FLOOR & LOWER LEVEL.
10) MOVE EXISTING AHU2 UNIT FROM BASEMENT TO 2ND FLOOR MECHANICAL ROOM & DUCT DOWN TO 1ST FLOOR KITCHEN. ADD OUTSIDE AIR DUCT. INSTALL EXISTING CONDENSER ON LOWER ROOF & RUN NEW LINE SET TO UNIT.
11) All GREASE DUCT ON ROOF TO BE PAINTED BROWN & ALL SUPPLY DUCT TO BE GALVANIZED DUCTWORK.
12) RUN CAT5 CABLES TO DOAS & HOOD TO HOOD CONTROL PANEL.
13) PERFORM ALL HOOD & HVAC INSPECTIONS & TEST AS REQUIRED.

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 FAN (KEF1) AND THEN FROM CAPTIVE AIRE PANEL TO THE DISCONNECT ON THE EXHAUST FAN. THE POWER MUST BE IN SEPARATE CONDUITS DUE TO THE VFD.
2) WIRE 120V, 1 PHASE FOR TOILET EXHAUST FAN FROM FIELD SUPPLIED WALL SWITCH THEN TO FAN ON ROOF (EF2)
3) FIELD WIRE FROM BUILDING PANEL TO CAPTIVE AIRE CONTROLS CABINET (WALL MOUNTED) 1 PHASE, 120, 20 AMP CIRCUIT TO BE USED FOR LIGHTS & CONTROLS CIRCUITRY. THEN WIRE POWER FROM HOOD PANEL TO LIGHTS ON HOODS & TIE TOGETHER IN SERIES.
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) FIELD WIRE 3 PHASE POWER FROM BUILDING PANEL TO RTU/DOAS UNIT ON LOWER ROOF.
9) RUN 5 WIRE-18 GA WIRE FROM HOOD CONTROL PANEL TO DOAS SYSTEM FOR INTERLOCK OF UNIT TO HOODS. CONNECT SFC1, SFO1 FROM CONTROL PACKAGE AT HOOD UP TO DOAS CONNECTOR J11, PIN 7, AND J16, PIN 7 (OCCUPIED OVERRIDE). CONNECT C2,AR2 FROM CONTROL PACKAGE AT HOOD UP TO DOAS CONNECTOR J12, PIN 1, 3 (SHUTS DOAS DOWN IN THE EVENT OF A FIRE)
10) 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.
11) 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 RTU/DOAS UNIT & PULL REQUIRED PLUMBING PERMITS.
3) INSTALL NEW GAS LINE TO EXISTING AHU2 RELOCATED NOW ON 2ND FLOOR MECHANICAL ROOM.

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 ENGINEERING & 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.
4) ENSURE PLUMBER, ELECTRICIAN, FIRE SPRINKLER CONTRACTOR, CEILING CONTRACTOR COORDINATE WITH HVAC/HOOD/ANSUL INSTALLERS TO MAKE SURE THEIR ARE NO PHYSICAL COLLISIONS WITH DUCTWORK & PIPING AND ROUTING IS WORKED OUT PRIOR TO INSTALLATION OF SYSTEMS.

TYPE I EXHAUST GREASE DUCT (SPECIFICATIONS):

1) GREASE DUCT SERVING TYPE I HOODS USED IN GREASE APPLICATIONS SHALL BE CONSTRUCTED OF 16 GAGE (0.062") BLACK IRON STEEL, CONTINUOUSLY LIQUID TIGHT WELDED.
2) PROVIDE ALL SQUARE ELBOWS IN GREASE DUCT WITH UNVANED SMOOTH RADIUS CONSTRUCTION WITH RADIUS EQUAL TO 1-1/2 TIMES THE DUCT WIDTH. AVOID SITUATIONS WHICH WOULD REQUIRE 90 DEGREE FITTINGS BACK TO BACK.
3) DUCT TO HOOD JOINTS SHALL BE CONTINUOUS LIQUID TIGHT WELDED.
4) TYPE I HOODS AND GREASE DUCTS SHALL BE SUPPORTED USING NON-COMBUSTIBLE MATERIALS.
5) GREASE DUCT SYSTEMS SHALL BE INSTALLED SO AS TO NOT COLLECT GREASE IN ANY PORTION. SLOPE DUCTWORK A MINIMUM OF 1/4"/FT BACK TOWARDS THE HOOD. CLEAN OUTS SHALL BE PROVIDED AT EVERY CHANGE IN DIRECTION, AS REQUIRED TO PROPERLY CLEAN THE DUCT AND AT A MINIMUM OF ONE EVERY 20 FEET.
6) ALL COMBUSTIBLE MATERIALS SHALL BE KEPT A MINIMUM OF 18" AWAY FROM ANY PART OF A TYPE I HOOD OR THE GREASE DUCT SERVING A TYPE I HOOD. IF THE COMBUSTIBLE MATERIALS CANNOT BE MOVED TO ALLOW 18" CLEARANCE, AN APPROVED CLEARANCE REDUCTION METHOD SHALL BE USED.

SUPPLY DUCT (SPECIFICATIONS):

1) SHEET METAL DUCTWORK SHALL BE FABRICATED OF GALVANIZED STEEL AND INSTALLED IN ACCORDANCE WITH SMACNA AND THE BUILDING AND MECHANICAL CODES
2) INSTALL DAMPERS AT ALL BRANCH DUCTS AS REQUIRED TO PROPERLY BALANCE THE SYSTEM

DATE: 09/03/20

DRAWN BY: JAH

SCALE: NONE

REVISION	DATE
Rev Per City	12/21/20

The Rookwood

1077 Celestial 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

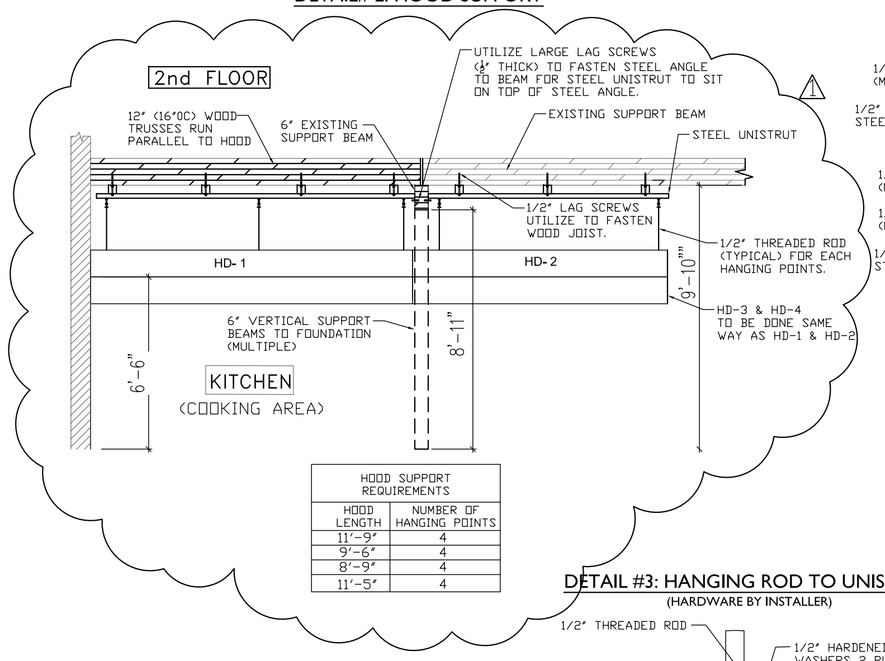
HOOD INFORMATION – JOB#4430483

HOOD NO	TAG	MODEL	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	HD1A-TILT	6012 SND-2	11' 9"	450 DEG	I	MEDIUM	170	1998	10"	17"	4"		1998	1692	-0.924"	430 SS WHERE EXPOSED	LEFT	ALONE
2	HD1B-FRCH	6012 SND-2	8' 9"	600 DEG	I	HEAVY	224	1957	10"	17"	4"		1957	1658	-1.030"	430 SS WHERE EXPOSED	RIGHT	ALONE
3	HD2A-FRY	5412 SND-2	7' 11"	600 DEG	I	HEAVY	228	1802	10"	16"	4"		1802	1622	-0.962"	430 SS WHERE EXPOSED	ALONE	ALONE
4	HD2B-CHAR	5412 SND-2	11' 4"	600 DEG	I	HEAVY	222	2512	10"	22"	4"		2512	1644	-1.078"	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

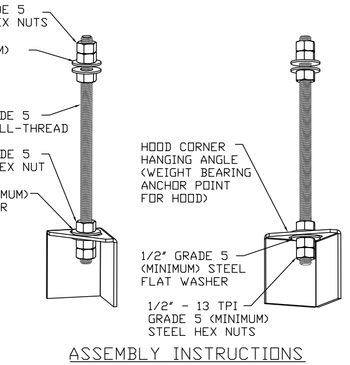
HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S) FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL SWITCHES MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	HD1A-TILT	CAPTRATE SOLO FILTER	8	16"	16"	85% SEE FILTER SPEC	6	L55 SERIES E26	NO							YES	690 LBS
2	HD1B-FRCH	CAPTRATE SOLO FILTER	6	16"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO							YES	558 LBS
3	HD2A-FRY	CAPTRATE SOLO FILTER	5	16"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO							YES	473 LBS
4	HD2B-CHAR	CAPTRATE SOLO FILTER	8	16"	16"	85% SEE FILTER SPEC	5	L55 SERIES E26	NO							YES	601 LBS

DETAIL# 2: HOOD SUPPORT



HOOD SUPPORT REQUIREMENTS	
HOOD LENGTH	NUMBER OF HANGING POINTS
11'-9"	4
9'-6"	4
8'-9"	4
11'-5"	4

DETAIL #1: HOOD HANGING ASSEMBLY

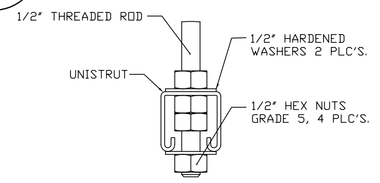


ASSEMBLY INSTRUCTIONS

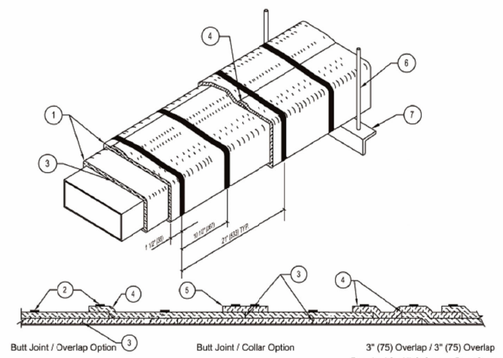
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND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

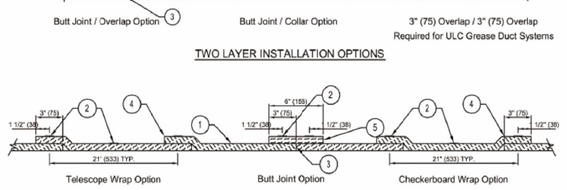
DETAIL #3: HANGING ROD TO UNISTRUT

(HARDWARE BY INSTALLER)

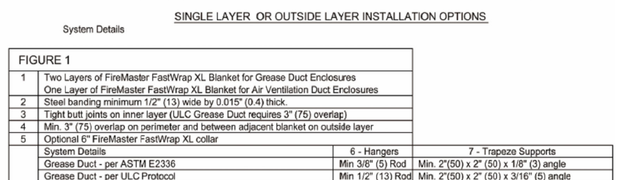


FireMaster® FastWrap® XL
Commercial Kitchen Grease Duct Enclosure System
Air Ventilation Duct Enclosure System
1 or 2 Hour Shaft Alternative / Zero Clearance to Combustibles





TWO LAYER INSTALLATION OPTIONS



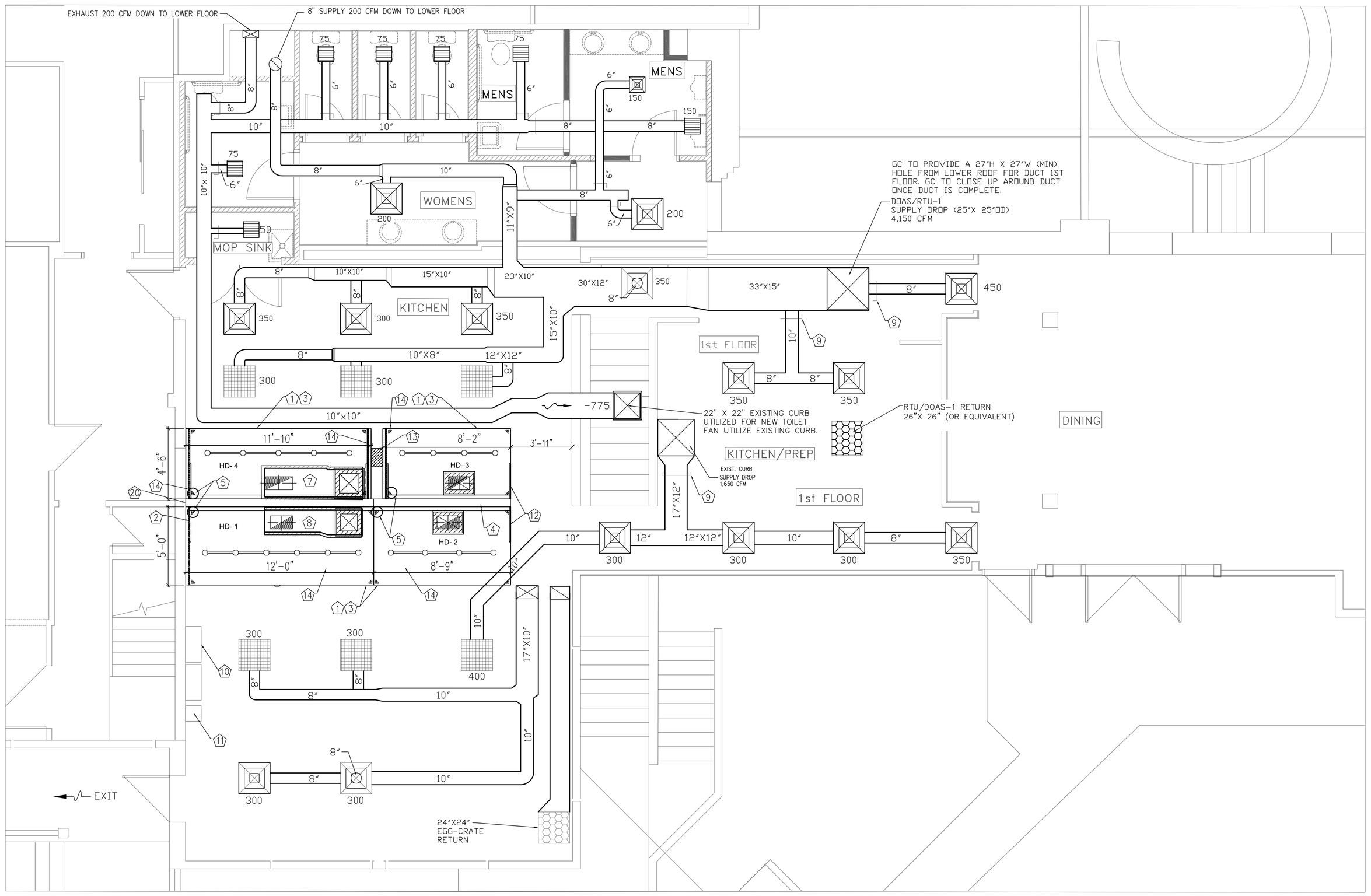
SINGLE LAYER OR OUTSIDE LAYER INSTALLATION OPTIONS

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 linked to the quality of the installation.

FM06J001-3



PLAN VIEW - 1st FLOOR

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

Diffuser Key

- PERFORATED DIFFUSER
- EGG-CRATE RETURN
- 4 WAY RETURN 24"x24"
- EXHAUST GRILL 12"x12"
- 4 WAY RETURN 12"x12"

Key Notes

1. CAPTIVE-AIRE ETL LISTED HOOD IN ACCORDANCE TO UL710 SEE CAPTIVE-AIRE SHOP DWGS.
2. STAINLESS STL. WALL PANEL BELOW ON 1/2 WALL & RIGHT & LEFT OF HOOD FROM FLOOR TO CEILING. ALSO 18" PASS THE HOOD TO LEFT & RIGHT (MINIMUM).
3. CANOPY TYPE HOOD. TO OVERHANG ON FRONT BY 6" FROM COOKING SERVICE ON EXPOSED SIDES ONLY (SEE CAPTIVE-AIRE LISTING SHEET).
4. METAL STUD & SHEET ROCK HALF WALL WITH STAINLESS STEEL PANELS.
5. HANGING ROD (SEE DETAILS #1, #2 & #3)
6. GREASE CLEANOUT DOOR (REMOVABLE BY HAND)
7. 22"X 10" (OR EQUIV) 16 GA STEEL GREASE DUCT (WELDED LIQUID-TIGHT) WITH QTY (2) LAYERS OF LISTED FIRE WRAP FOR ZERO CLEARANCE. (SEE FIREWRAP SPEC'S)
8. 17"X 10" (OR EQUIV) 16 GA STEEL GREASE DUCT (WELDED LIQUID-TIGHT) WITH QTY (2) LAYERS OF LISTED FIRE WRAP FOR ZERO CLEARANCE. (SEE FIREWRAP SPEC'S)
9. LOCKING TYPE BALANCING DAMPERS AT THESE LOCATIONS. ALL OTHER LOCATIONS TO HAVE BUTTERFLY TYPE DAMPERS INSTALLED IN EACH AIR DEVICE.
10. UL 300 ANSUL FIRE SYSTEM FOR HOODS TO BE WALL MOUNTED -PERMIT FOR ANSUL BY SILCO FIRE DISTRIBUTION (LOCAL INSTALLER).
11. CAPTIVE-AIRE LISTED CONTROL PANEL FOR HOODS & FAN CONTROLS WITH ALL INTERLOCKED. (SEE CAPTIVE-AIRE DRAWINGS FOR DETAIL)
12. FULL VERTICAL END PANELS (42" WIDE) TO FLOOR ON BOTH HOODS.
13. 6"X 11" ID (9" X 14" OD) HOOD SUPPORT BEAM WITH CEMENT BOARD & 1" INSULATED FIRE RATED STAINLESS STEEL PANELS ENCAPSULATING ALL (4) SIDES OF BEAM.
14. CAPTIVE-AIRE FACTORY BUILT INSULATED STAND OFFS OF SIDES OF HOODS & TOP OF HOODS FOR ZERO CLEARANCE TO COMBUSTIBLES (SEE CAPTIVE-AIRE LISTING INFO)
15. DUCT-15"X15" DUCT W/WRAP-21"X21" HOLE-23"X23"
16. DUCT-13"X13" DUCT W/WRAP-19X19" HOLE-21"X21"
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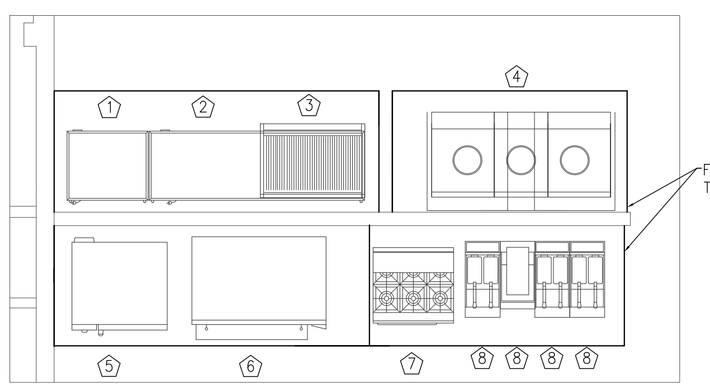
20. NON-COMBUSTIBLE METAL STUD ½ WALL BETWEEN HOODS WITH STAINLESS PANELS.



COOKING EQUIPMENT LAYOUT

1. GRIDDLE 36"
2. GRIDDLE 48"
3. CHARBROILER 48"
4. DEEP FRYER
5. DOUBLE CONVECTION OVEN
6. (2) DRAWER WARMER
7. 36" GRIDDLE
8. DEEP FRYER

FISCHER ENGINEERING SERVICES, LLC
MECHANICAL DESIGN & CONSULTING SERVICES
3872 Nottingham Ct.
Cleves, Ohio 45002
Ph: 513-941-4188 Cell: 513-675-1559 Fax: 513-941-4414

DATE: 09/03/20

DRAWN BY: JAH

SCALE: NONE

REVISION	DATE
Rev Per City	12/21/20

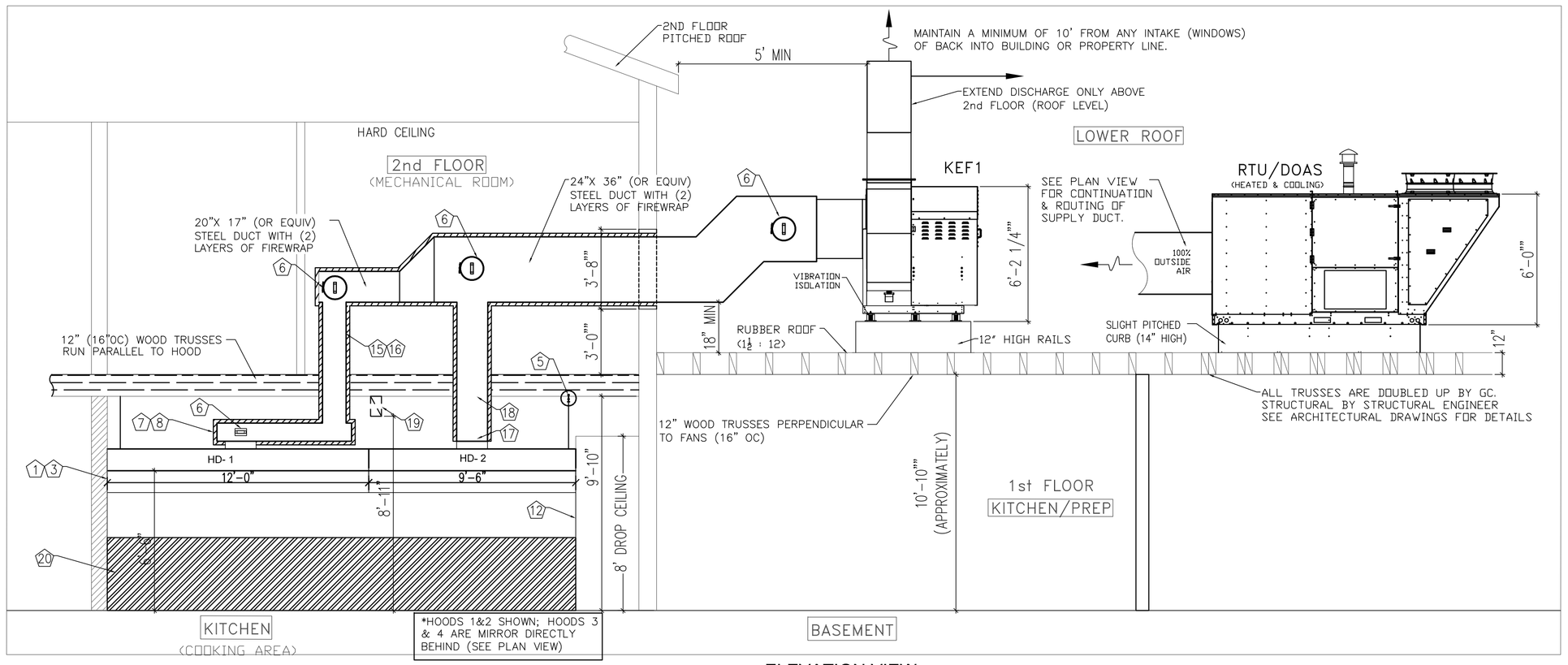
The Rookwood

1077 Celestial 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-2



ELEVATION VIEW

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

DIFFUSER KEY

- PERFORATED DIFFUSER
- EGG-CRATE RETURN
- 4 WAY RETURN 24"x24"
- EXHAUST GRILL 12"x12"
- 4 WAY RETURN 12"x12"

SITE PLAN VIEW

KEY NOTES

1. CAPTIVE-AIRE ETL LISTED HOOD IN ACCORDANCES TO UL710 SEE CAPTIVE-AIRE SHOP DWGS.
2. STAINLESS STL. WALL PANEL BELOW ON ½ WALL & RIGHT & LEFT OF HOOD FROM FLOOR TO CEILING. ALSO 18" PASS THE HOOD TO LEFT & RIGHT (MINIMUM).
3. CANOPY TYPE HOOD. TO OVERHANG ON FRONT BY 6" FROM COOKING SERVICE ON EXPOSED SIDES ONLY (SEE CAPTIVE-AIRE LISTING SHEET).
4. METAL STUD & SHEET ROCK HALF WALL WITH STAINLESS STEEL PANELS.
5. HANGING ROD (SEE DETAILS #1, #2 & #3)
6. GREASE CLEANOUT DOOR (REMOVABLE BY HAND)
7. 22"X 10" (OR EQUIV) 16 GA STEEL GREASE DUCT (WELDED LIQUID-TIGHT) WITH QTY (2) LAYERS OF LISTED FIRE WRAP FOR ZERO CLEARANCE. (SEE FIREWRAP SPEC'S)
8. 17"X 10" (OR EQUIV) 16 GA STEEL GREASE DUCT (WELDED LIQUID-TIGHT) WITH QTY (2) LAYERS OF LISTED FIRE WRAP FOR ZERO CLEARANCE. (SEE FIREWRAP SPEC'S)
9. LOCKING TYPE BALANCING DAMPERS AT THESE LOCATIONS. ALL OTHER LOCATIONS TO HAVE BUTTERFLY TYPE DAMPERS INSTALLED IN EACH AIR DEVICE.
10. UL 300 ANSUL FIRE SYSTEM FOR HOODS TO BE WALL MOUNTED -PERMIT FOR ANSUL BY SILCO FIRE DISTRIBUTION (LOCAL INSTALLER).
11. CAPTIVE-AIRE LISTED CONTROL PANEL FOR HOODS & FAN CONTROLS WITH ALL INTERLOCKED. (SEE CAPTIVE-AIRE DRAWINGS FOR DETAIL)
12. FULL VERTICAL END PANELS (42" WIDE) TO FLOOR ON BOTH HOODS.
13. 6"X 11" HOOD SUPPORT BEAM WITH CEMENT BOARD & 1" INSULATED FIRE RATED STAINLESS STEEL PANELS ENCAPSULATING ALL (4) SIDES OF BEAM.
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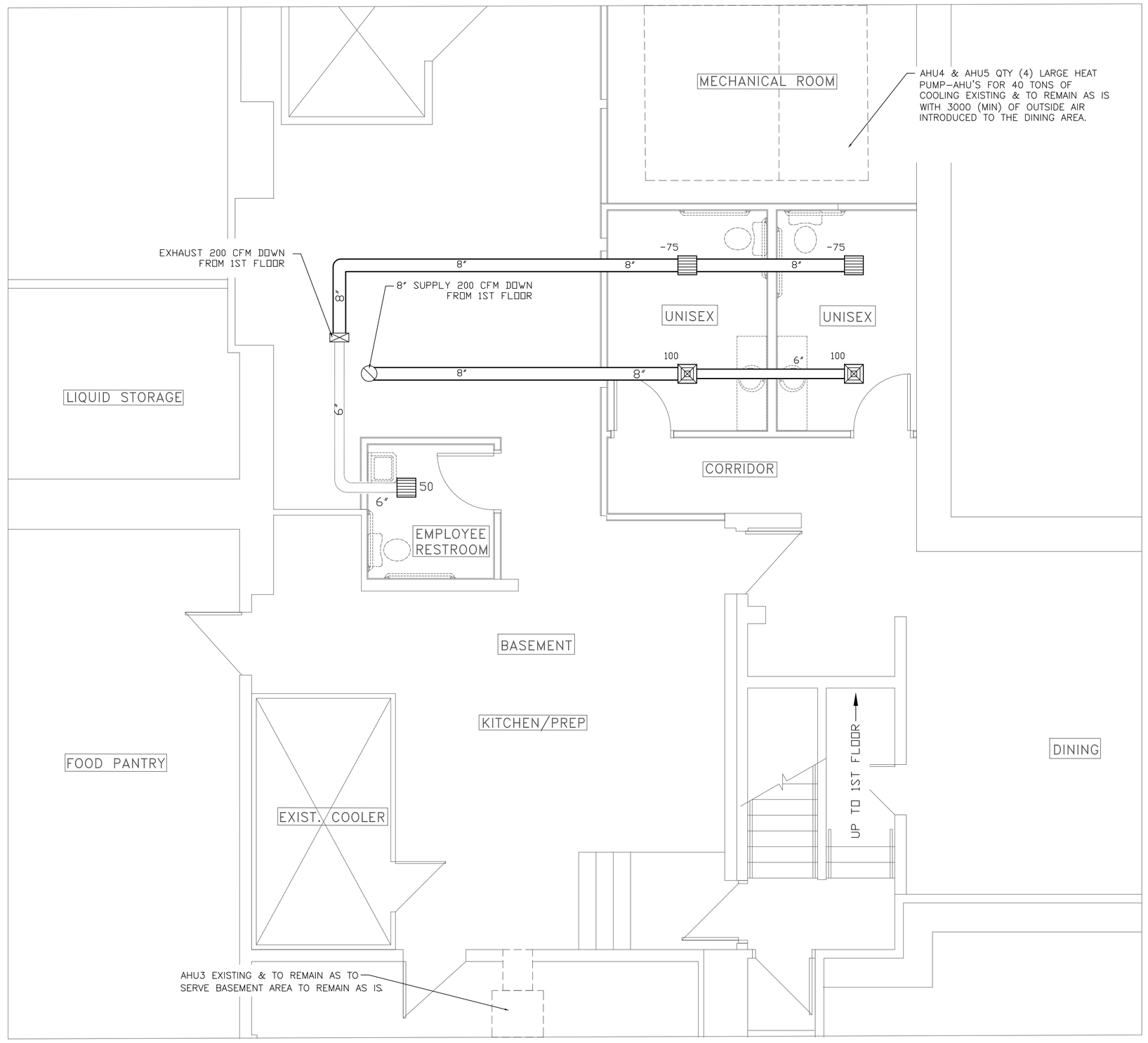
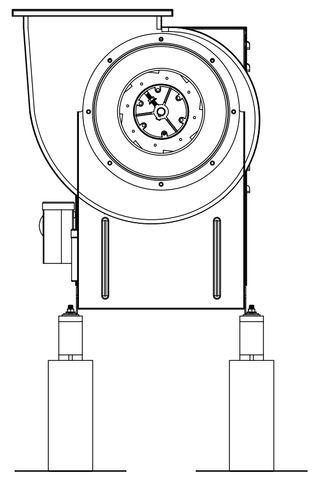
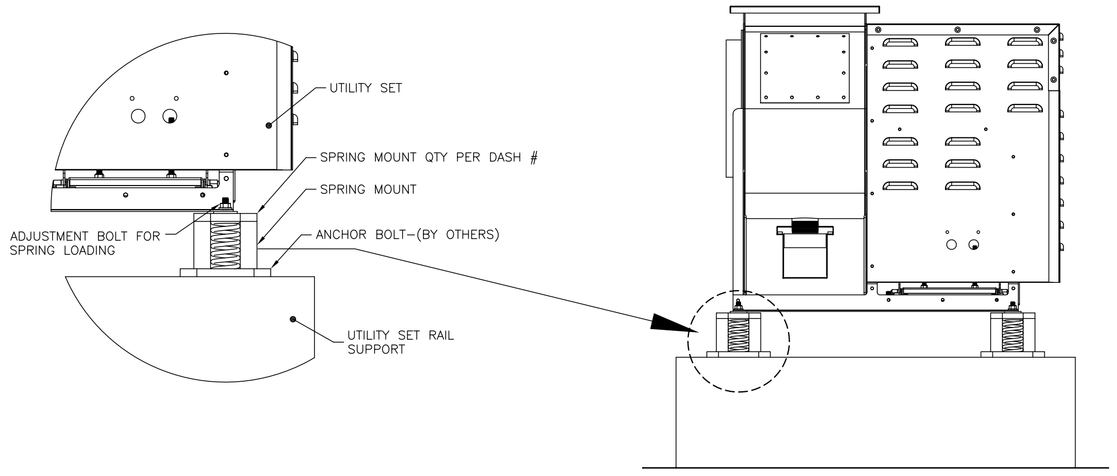


PLAN VIEW - BASEMENT FLOOR

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

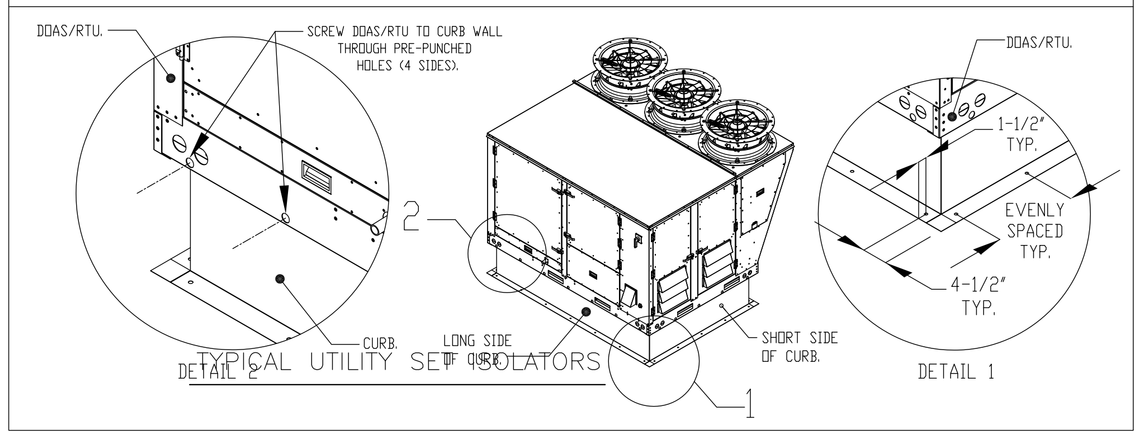




FAN KEF-1 DETAI

TYPICAL DOAS/RTU ROOF MOUNTING INSTALLATION INSTRUCTIONS

1. SECURE THE CURB TO THE ROOF FRAMING MEMBERS BY DRILLING 1/4" PILOT HOLES IN THE CURB FLANGES AT LOCATIONS SHOWN IN THE DIAGRAM BELOW. USING 3/8" X 2" ZINC PLATED STEEL LAG BOLTS, AND ZINC PLATED WASHERS, SCREW THROUGH THE CURB FLANGES AND INTO THE ROOF FRAMING MEMBERS. A MINIMUM OF (5) LAG BOLTS ON EACH SHORT SIDE, AND (7) LAG BOLTS ON EACH LONG SIDE IS REQUIRED.
2. SECURE THE UNIT BASE TO THE SIDE WALLS OF THE CURB USING (24) 1/4"-14 X 2" SELF-DRILLING, STEEL ZINC PLATED SCREWS. PRE-PUNCHED HOLES HAVE BEEN PROVIDED FOR EACH SCREW LOCATION.



TYPICAL UTILITY SET ISOLATORS

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