

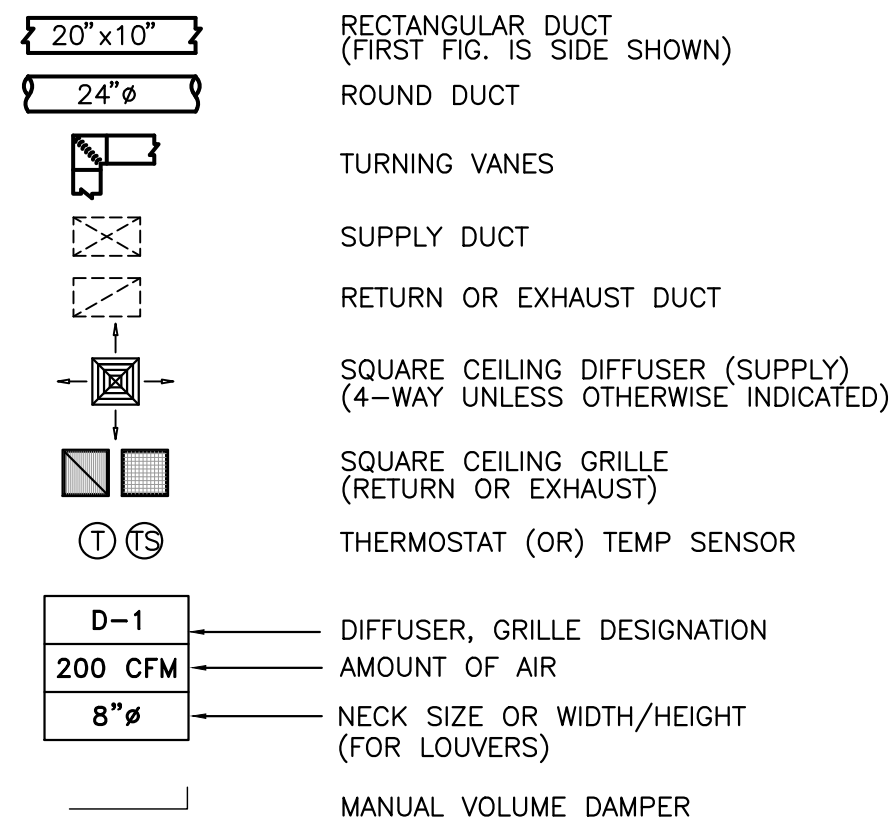
MECHANICAL SYMBOLS AND ABBREVIATIONS

NOTE: ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

GENERAL NOTES

- PERFORM ALL WORK IN ACCORDANCE WITH ALL CODES AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALL PERMITS, INSPECTIONS, LICENSES AND FEES.
- FURNISH ALL LABOR, EQUIPMENT, SUPPLIES AND MATERIALS NECESSARY TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS.
- DRAWINGS AND SPECIFICATIONS: THE MECHANICAL DRAWINGS INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF PIPES, EQUIPMENT, SYSTEMS, ETC. INFORMATION SHOWN IS DIAGRAMMATIC IN CHARACTER AND DOES NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DO NOT SCALE THE DRAWINGS FOR DIMENSIONS. TAKE DIMENSIONS, MEASUREMENTS, EQUIPMENT LOCATIONS, LEVELS, ETC. FROM THE ARCHITECTURAL DRAWINGS AND EQUIPMENT TO BE FURNISHED. CONDUIT, PIPING AND/OR DUCTWORK MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES. DEVIATION FROM DRAWING MUST HAVE THE ARCHITECT'S APPROVAL. THE DESIGN INTENT I.E., PITCHES, VELOCITIES, PRESSURE DROPS, VOLTAGE DROPS, ETC., CANNOT BE GREATLY ALTERED WITHOUT THE APPROVAL OF THE ARCHITECT. COST OF THESE DEVIATIONS TO AVOID INTERFERENCES SHALL BE PART OF THE ORIGINAL CONTRACT.
- CONFER AND COOPERATE WITH OTHER TRADES AND COORDINATE THE WORK WITH THEIRS. COORDINATE CEILINGS CAVITY SPACE CAREFULLY WITH OTHER TRADES. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT.
- BASE FINAL INSTALLATION OF MATERIALS AND EQUIPMENT ON ACTUAL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE. FIELD MEASURE FOR MATERIALS OR EQUIPMENT REQUIRING EXACT FIT. NO EXTRAS WILL BE GIVEN FOR CONTRACTORS FAILURE TO FIELD COORDINATE.
- CONTRACTOR SHALL LOCATE ALL EQUIPMENT WHICH MUST BE SERVICED, OPERATED, OR MAINTAINED IN FULLY ACCESSIBLE POSITIONS. EQUIPMENT SHALL INCLUDE (BUT NOT BE LIMITED TO) VALVES, SHOCK ABSORBERS, TRAPS, CLEANOUTS, MOTORS, CONTROLLERS, SWITCHGEAR, AND DRAIN POINTS IF REQUIRED FOR BETTER ACCESSIBILITY. FURNISH ACCESS DOORS FOR THIS PURPOSE. MINOR DEVIATIONS FROM DRAWINGS MAY BE ALLOWED TO PROVIDE FOR BETTER ACCESSIBILITY. ANY CHANGES SHALL BE APPROVED BY THE ARCHITECT, CONTRACTOR PRIOR TO MAKING THE CHANGE.
- CONTRACTOR SHALL PROVIDE ACCESS DOORS, WALL OPENINGS, ROOF OPENINGS OR ANY OTHER CONSTRUCTION REQUIREMENTS NEEDED TO ACCOMMODATE THE MECHANICAL EQUIPMENT. LOCATIONS OF THESE OPENINGS SHALL BE SUBMITTED IN SUFFICIENT TIME TO BE INSTALLED IN THE NORMAL COURSE OF WORK.
- CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENTS OF APPROVED MECHANICAL EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO THE INSTALLATION OF ANY ELECTRICAL GEAR OR CONDUIT.
- PROVIDE VIBRATION ISOLATORS FOR MOTOR DRIVEN MECHANICAL EQUIPMENT UNLESS SPECIFICALLY NOTED OTHERWISE. PROVIDE ISOLATION AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
- GENERAL CONTROL WIRING, THERMOSTATS, MOTORIZED DAMPERS AND CONDUIT ASSOCIATE WITH HVAC EQUIPMENT IS THE RESPONSIBILITY OF THE CONTRACTOR. INSTALL THERMOSTATS CENTERED AT 4'-0" ABOVE FINISHED FLOOR, UNLESS OTHERWISE INDICATED.
- ALL DIMENSIONS SHOWN ON THE DRAWINGS FOR DUCTWORK ARE NET INSIDE CLEAR DIMENSIONS. THE FIRST FIGURE OF THE DUCT SIZE INDICATES THE DIMENSION OF THE FACE SHOWN. VERIFY THAT THE DUCTWORK SPECIFIED WILL FIT IN THE SPACE AVAILABLE USING THE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS AS REFERENCE PRIOR TO FABRICATION AND INSTALLATION.
- PROVIDE TURNING VANES ON ALL RECTANGULAR SUPPLY, RETURN AND EXHAUST DUCTWORK INCLUDING THE TOP AND BOTTOM OF VERTICAL DUCTS.
- PROVIDE A LOCKING QUADRANT VOLUME DAMPER AT THE TOP OF EACH RUN-OUT TO DIFFUSERS FOR BALANCING PURPOSES, UNLESS OTHERWISE INDICATED.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL FIRE RATED WALLS AND CEILINGS. PROVIDE FIRE DAMPERS AND / OR COMBINATION FIRE / SMOKE DAMPERS IN DUCTWORK AT ALL LOCATIONS WHERE DUCTS PASS THROUGH ASSEMBLY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROVIDING FIRE AND SMOKE DAMPERS.
- LOCATION OF ALL GRILLES, REGISTERS, AND DIFFUSERS SHALL BE DETERMINED FROM THE MECHANICAL PLANS. COORDINATE ALL CEILING DIFFUSERS AND GRILLE LOCATIONS WITH LOCATION OF LIGHTS.
- ALL DUCTWORK SHALL BE SHEET METAL FABRICATED IN ACCORDANCE WITH SMACNA STANDARDS. FLEXIBLE DUCTWORK CAN ONLY BE USED AS A RUNOUT TO A SINGLE DIFFUSER AND SHALL BE NO MORE THAN 6' IN LENGTH.
- THE CONTRACTOR SHALL EXPAND OR REDUCE DUCTS AT EQUIPMENT CONNECTIONS BASED ON THE EQUIPMENT PURCHASED, WITH TRANSITIONS NOT TO EXCEED 30 DEGREES. SIZES SHOWN ON SCHEDULES, ETC. ARE FOR GUIDANCE ONLY. ASPECT RATIO SHALL BE NO GREATER THAN 4:1, PER SMACNA'S GUIDELINES.
- THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL THERMOSTATS WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO INSTALLATION. IF A CONFLICT WILL MILLWORK, LIGHT SWITCHES, WINDOWS, ETC EXISTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF THE POTENTIAL INTERFERENCE.
- KITCHEN EXHAUST DUCTS SHALL BE FABRICATED IN ACCORDANCE WITH NFPA 96 LATEST EDITION AND LOCAL CODE REQUIREMENTS. WRAP EXHAUST DUCTS WITH THERMAL CERAMICS, 2 HOUR FIRE PROTECTION SYSTEM PER MANUFACTURER'S INSTRUCTIONS.
- CONTRACTOR TO ORDER CAPTIVE AIRE EQUIPMENT DIRECTLY FROM CAPTIVE AIRE AND INSTALL ALL EQUIPMENT

SYMBOLS



ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ARCH	ARCHITECT
AC	PACKAGED AC UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CLG.	CEILING
CU	CONDENSING UNIT
CONT	CONTRACTOR
CC	COOLING COIL
DN	DOWN
E/A	EXHAUST AIR
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EX	EXISTING
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FLR	FLOOR
GPM	GALLONS PER MINUTE
GAL	GALVANIZED
HP	HORSEPOWER
MAX	MAXIMUM
MBH	1000 BRITISH THERMAL UNITS / HOUR
MIN	MINIMUM
O/A	OUTSIDE AIR
PEF	PURGE EXHAUST FAN
R/A	RETURN AIR
RM	ROOM
SF	SUPPLY FAN
SPECS	SPECIFICATIONS
S/A	SUPPLY AIR
T/A	THERMOSTAT
T OR T-STAT	THERMOSTAT OR ROOM SENSOR
UH	UNIT HEATER
V	VOLTS

HEATING SCHEDULE

EQUIPMENT	INPUT (BTU/HR)	OUTPUT (BTU/HR)	REQUIRED HEAT (BTU/HR)
EX ROOFTOP UNIT (EX RTU C-4)	180,000	148,000	23,457
EX ROOFTOP UNIT (EX RTU C-3)	180,000	148,000	74,136
TOTALS	360,000	296,000	97,593

AIR BALANCE SCHEDULE

UNIT	SUPPLY AIR	RETURN AIR	OUTDOOR AIR	EXHAUST AIR	PRESSURE
EX RTU C-4	2,550	2,315	235		235
EX RTU C-3	3,400	2,785	615		615
MAU-1	1000		1000		1000
EF-1				150	-150
EF-2				600	-600
EF-3				1000	-1000
TOTALS	6,950	5,100	1,850	1750	100

GAS LOAD SCHEDULE

EQUIPMENT	INPUT (BTU/HR)	GAS FLOW (1,000 BTU/CF) (CF/HR)
EX ROOFTOP UNIT (EX RTU C-4)	180,000	180
EX ROOFTOP UNIT (EX RTU C-3)	180,000	180
MAKE UP AIR UNIT (MAU-1)	98,730	98.73
WATER HEATER (WH-1)	199,000	199
TOTAL	657,730	657.73

- NOTES:
- BALANCING TOLERANCES ARE AS FOLLOWS:
 HOODS: 0% TO +10%
 OUTDOOR AIR: 0% TO +10%
 SUPPLY AND RETURN AIR DIFFUSERS: -10% TO +10%
 TOILET EXHAUST AIR: -10% TO +10%
 - BALANCE ROOFTOP UNIT SUPPLY AND RETURN AIR PRIOR TO TURNING ON EXHAUST FANS.
 - EXHAUST HOODS SHALL BE BALANCED WITH A 4" VANE ANEMOMETER.

2015 IMC SECTION 403.3 AND SPS 364.0403 - VENTILATION SCHEDULE

UNIT	AREA SERVED	AREA FT ² (Az)	CFM/PERSON (Rp)	CFM/FT ² (Ra)	PEOPLE OR PEOPLE/1000 FT ² (Pz)	UNCORRECTED REQUIRED O/A CFM (Vbz)	Ez*	Ev**	REQUIRED O/A CFM (Vot)***	ACTUAL O/A CFM	REQUIRED EXHAUST CFM	ACTUAL EXHAUST CFM
EX RTU C-4 & MAU-1	KITCHEN	874	7.5	0.18	10	-	0.8	0.98	-	1,235		
EX RTU C-3	RESTROOMS	104	0	-	0	-	0.8	0.91	-			
	DINING	818	7.5	0.18	52	537	0.8	0.91	-			
	CLOSET	22	0	0.06	0	1	0.8	0.91	-			
						539			592	615		
EF-1&2	KITCHEN	874	-	0.7	-	-	-	-	-	-	612	1600
	UNISEX 1	52	-	-	-	-	-	-	-	-	50	75
	UNISEX 2	52	-	-	-	-	-	-	-	-	50	75
											762	1825

* Zone Air Distribution Effectiveness Based on ASHRAE 62.1 Table 6.2 for Ceiling Supply of Warm Air 15°F or More Above Space Temperature and Ceiling Return (IMC Table 403.3.1.2)

** Ventilation System Efficiency Based on ASHRAE 62.1 Table 6.3 and Section 6.2.5 (IMC Section 403.3.2.3 MZ)

*** Corrected Required O/A Intake Required for System Calculated Based on ASHRAE 62.1 Section 6.2 (IMC Section 403.3)

FAN SCHEDULE

TAG	MAUFACTURER	MODEL	AREA SERVED	CONFIGUR.	TOTAL CFM	EXTERNAL SP (IN WG)	SONES	HP	RPM	DRIVE TYPE	VOLTS PH V/NO	WEIGHT LBS	NOTES
EF-1	CAPTIVE AIRE	DU50HFA	HOOD	ROOF	1,000	0.50	9.9	0.5	1,209	DIRECT	115V/1	79	2
EF-2	CAPTIVE AIRE	DU33HFA	HOOD	ROOF	600	0.35	8.9	0.333	1,128	DIRECT	115V/1	64	2
EF-3	FANTECH	FG6	RESTROOMS	INLINE	150	0.25	-	-	-	DIRECT	115V/1	10	1,3
MAU-1	CAPTIVE AIRE	A1-D.500-15D-MPU	HOODS	ROOF	1,000	0.50	13.3	2.0	1,637	DIRECT	115V/1	1024	-

NOTES:

- APPROVED EQUAL MANUFACTURER: COOK, PENN, ACME
- PROVIDE ROOF CURB AND DISCONNECT
- SPEED CONTROL, INTERLOCK WITH LIGHTS

GENERAL NOTES:

- MOTOR STARTERS, DISCONNECTS (IF NOT FACTORY PROVIDED) AND ALL EQUIPMENT NORMAL POWER WIRING BY ELEC. CONTRACTOR
- ALL CONTINUOUS-DUTY MOTORS SHALL BE PROVIDED WITH OVERLOAD PROTECTION ACCORDING TO NATIONAL ELECTRICAL CODE PAR. 430-32.
- FIELD ADJUST OPENINGS WITH STRUCTURE

DIFFUSER, REGISTER, GRILLE SCHEDULE

TAG	MAX. N.C.	FINISH	DAMPER	FRAME	MFG. & MODEL	SIZE	NOTES
D-2	35	WHITE	OBD	SURFACE	KRUEGER 1400A	12"X12"	2
D-3	35	WHITE	NONE	LAY-IN	KRUEGER 6300	24"x24"	2
R-1	35	WHITE	NONE	DUCT	KRUEGER S880H	12"X6"	1,2,3
G-1	35	WHITE	NONE	LAY-IN	KRUEGER EGC-5-NSH	24"x24"	2
G-2	28	WHITE	OBD	WALL	KRUEGER S580	34"x30"	2
E-1	35	WHITE	OBD	SURFACE	KRUEGER S580	12"X12"	1,2

- NOTES:
- PROVIDE SQUARE TO ROUND ADAPTOR
 - CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR ON FINAL CEILING PLAN AND FRAME TYPE
 - PROVIDE OPPOSED BLADE DAMPER

EXISTING ROOFTOP UNIT SCHEDULE - LANDLORD PROVIDED

TAG	MFR.	MODEL	SERVES	WEIGHT (LBS)	AIRFLOW				COOLING(MB/H)			HEATING (Gas)				ELECTRICAL									
					S.A.	E.S.P.	R.A.	O.A.	EAT (DB/WB)	LAT (DB/WB)	TOTAL	SENS	LAT	COIL	INPUT	OUTPUT	STAGES	CONN	EER/IEER	HP	V	Ph	Hz	MCA	MOCP
EX RTU C-4	CARRIER	48FCM09A	KITCHEN	EX	2,550	0.80	2,315	235	EX	EX	67.0	58.1	8.9	Medium	180,000	148,000	2	3/4"	11.4/15.0	2.40	208	3	60	41	50
EX RTU C-3	CARRIER	48FCM09A	DINING ROOM	EX	3,400	0.80	2,785	615	EX	EX	94.7	75.7	19.0	Medium	180,000	148,000	2	3/4"	11.4/15.0	2.40	208	3	60	41	50

- NOTES:
- PROVIDE 100% ECONOMIZER AND BAROMETRIC RELIEF DAMPER.
 - PROVIDE DUTY PREFABRICATED ROOF CURB WITH INTEGRAL SPRING VIBRATION ISOLATION, VIBRATION MOUNTINGS "ISO-CURB" OR EQUAL.
 - PROVIDE FACTORY MOUNTED SMOKE DETECTOR IN RETURN AIR OF RTU-1 & RTU-2. DETECTOR SHALL BE INTERLOCKED WITH BLOWER POWER CIRCUIT.
 - PROVIDE FLEXIBLE DUCT CONNECTIONS IN BOTH SUPPLY AND RETURN DUCTWORK IN RTU 1 & 2.

IF YOU HAVE ANY QUESTIONS REGARDING THE PLANS, PLEASE CALL THE DESIGNER.

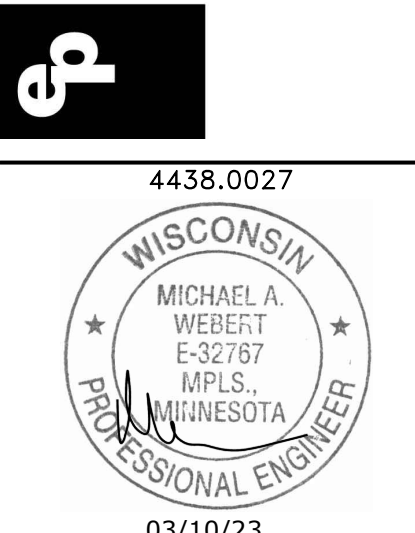
DESIGNER: Wendy Wenborg
 PHONE: 952-540-4047
 EMAIL: wwenborg@epinc.com

DRAWINGS AND SPECIFICATIONS ARE TO BE CONSIDERED AS SUPPLEMENTING EACH OTHER. WORK SPECIFIED BUT NOT SHOWN ON DRAWINGS, OR SHOWN ON DRAWINGS BUT NOT SPECIFIED, SHALL BE PERFORMED OR FURNISHED AS THOUGH MENTIONED IN BOTH SPECIFICATIONS AND DRAWINGS. IF NOT OTHERWISE DIRECTED, INSTALLATION OF ALL SYSTEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE WORK DESCRIBED IN THE SPECIFICATIONS IS IN CONFLICT WITH THE WORK SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL SUPPLY THE GREATER QUANTITY, QUALITY AND COST VIA THE BID AND CONTACT THE ENGINEER FOR CLARIFICATION ON DIRECTION PRIOR TO INSTALLATION. SCALES AS STATED HEREON ARE VALID ON THE ORIGINAL DRAWING ONLY. CONTRACTORS SHALL NOT SCALE OFF OF ANY DRAWINGS. IF DIMENSION IS NOT PROVIDED AND IS REQUIRED, CONTACT ARCHITECT TO HAVE THE DIMENSION CONFIRMED.

PRIOR TO BID, THE CONTRACTOR SHALL REVIEW THE MECHANICAL, ELECTRICAL AND KITCHEN EQUIPMENT DRAWINGS. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL RELEVANT WORK IN THE ENTIRE SET OF DOCUMENTS AND REPORT ALL DISCREPANCIES BETWEEN THESE DRAWINGS TO THE ENGINEER PRIOR TO BIDDING FOR CLARIFICATION. IF DISCREPANCIES REMAIN UNRESOLVED DUE TO A SHORT TIME FRAME, THE CONTRACTOR SHALL INCLUDE THE MOST WORK AND THE HIGHER COSTS IN THE BID. SOLUTIONS TO UNREPORTED DISCREPANCIES WILL BE DETERMINED BY THE ARCHITECT/ENGINEER, WITH NO ADDITIONAL COMPENSATION DUE TO THE CONTRACTOR.



emanuelson-podas consulting engineers
 Emanuelson-Podas, Inc.
 7705 Bush Lake Road
 Edina, MN 55439
 (952) 930-0050 | www.epinc.com

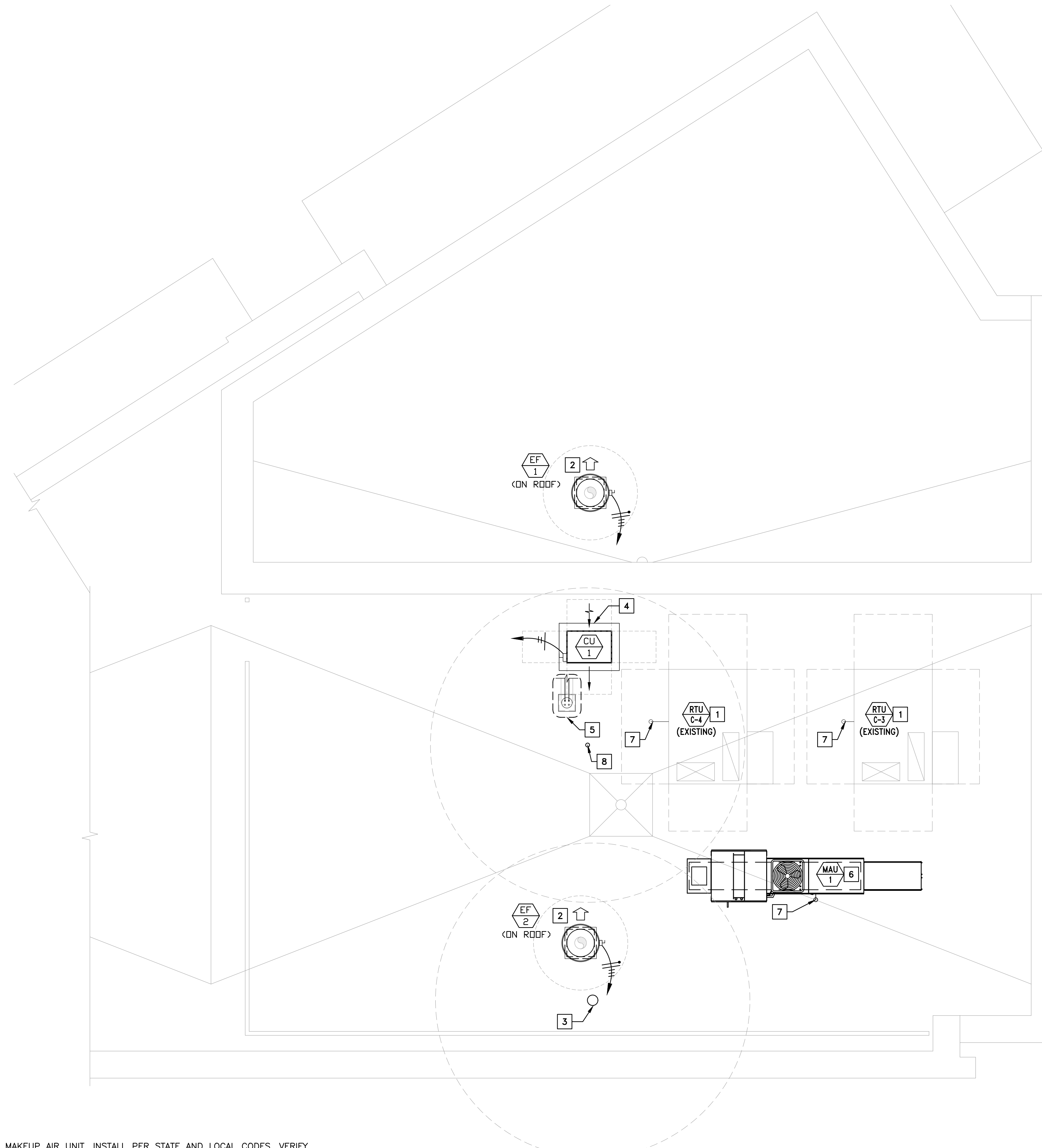


CRISP & GREEN
 TENANT IMPROVEMENT
 WEST PLACE
 7019 SLIGO DR., SUITE #C101
 MADISON, WI 53717
 COVER SHEET



DATE ISSUED
 CONSTRUCTION 03/10/23
 DRAWN BY HB/DMS
 CHECKED BY WLW
 JOB NO. 21219

M100



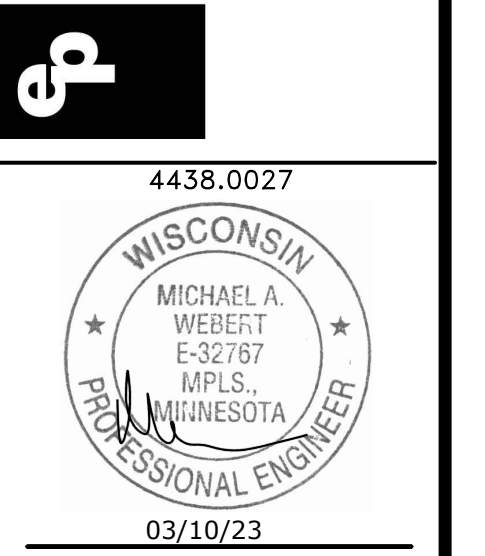
GENERAL NOTES:

- A. REFER TO DRAWING M100 FOR ADDITIONAL NOTES.
- B. ROOFTOP EQUIPMENT AND EXHAUST FAN LOCATIONS AND DROPS SHOWN ARE GENERAL. ACTUAL LOCATIONS SHALL BE COORDINATED WITH THE BUILDING SHELL STRUCTURAL ENGINEER.
- C. ROOF OPENINGS FOR ROOFTOP UNITS AND EXHAUST FANS SHALL BE INSTALLED PER THE MANUFACTURER REQUIREMENTS.
- D. ROOF OPENINGS FOR PIPE PORTALS SHALL ONLY BE LARGE ENOUGH TO ALLOW PIPE AND CONDUIT PENETRATIONS. PIPE PORTAL CURB SHALL BE FILLED WITH AS MUCH BATT INSULATION AS POSSIBLE.
- E. PRIOR TO INSTALLING THE TOP OF THE EQUIPMENT PLATFORM, INSIDE OF THE PLATFORM SHALL BE INSULATED WITH AS MUCH BATT INSULATION AS POSSIBLE.
- F. GAS PIPING LENGTHS ARE APPROXIMATE AND ARE SHOWN FOR SIZING PURPOSES ONLY.
- G. ALL ROOFTOP GAS PIPING SHALL BE SUPPORTED WITH DURA-BLOCK PIPE SUPPORTS.

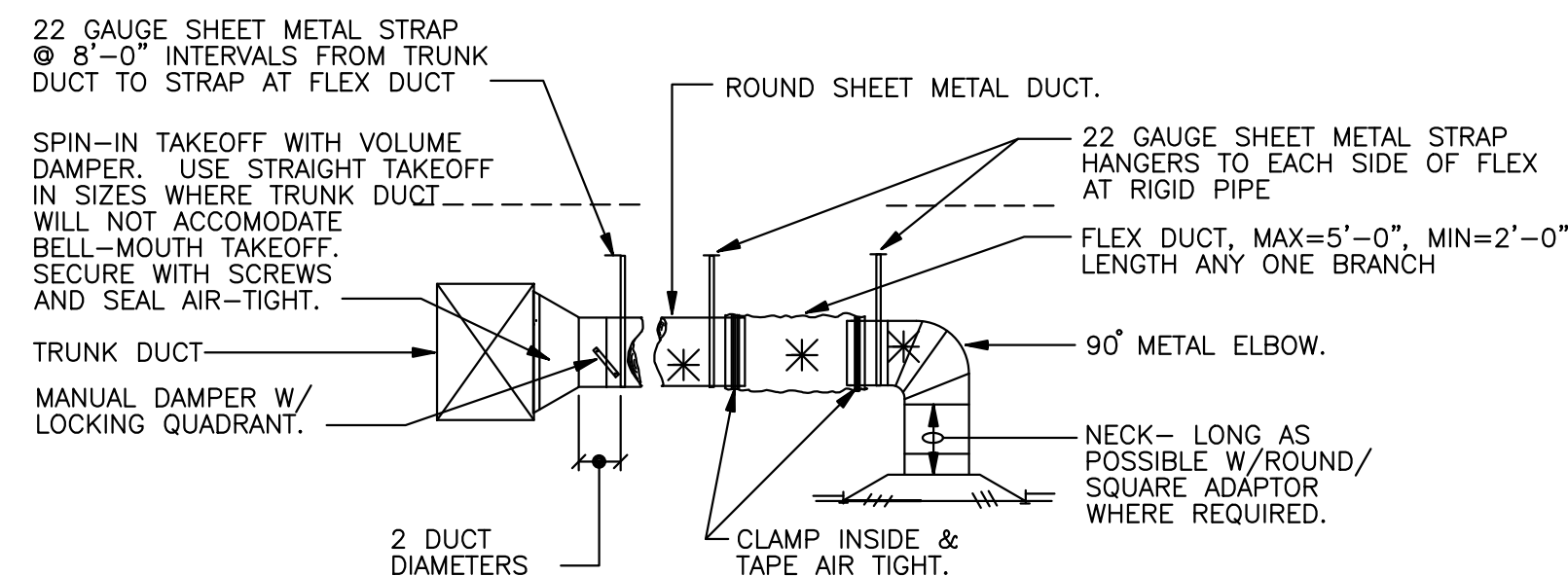
KEY NOTES

- 1 LANDLORD PROVIDED EXISTING ROOFTOP UNIT.
- 2 NEW EXHAUST FAN, INSTALL EXHAUST FAN TO OPEN IN DIRECTION OF ARROW.
- 3 8"Ø EXHAUST DUCT FROM EXHAUST FAN (EF-3). PROVIDE PORTALS PLUS PLASTI-FLASH WITH C-126 CAP (OR EQUAL) FOR ROOF PENETRATION. TERMINATE DUCT A MIN. OF 24" ABOVE FINISHED ROOF WITH GOOSENECK. EXHAUST SHALL MAINTAIN A 10'-0" CLEARANCE FROM ANY OUTSIDE AIR INTAKES.
- 4 NEW CONDENSING UNIT TO SERVE COOLER, COORDINATE LOCATION WITH BUILDING STRUCTURAL.
- 5 ROOF PIPE PORTAL FOR CONDENSING UNITS, (SEE DETAIL 6 ON DRAWING M401).
- 6 NEW MAKEUP AIR UNIT, INSTALL PER STATE AND LOCAL CODES. VERIFY EXACT LOCATION WITH BUILDING SHELL STRUCTURAL ENGINEER. GC TO VERIFY EXISTING STRUCTURE CAN SUPPORT NEW MAU. COORDINATE WITH LANDLORD ANY ADDITIONS TO STRUCTURE THAT MAY BE NEEDED.
- 7 GAS PIPE DOWN TO CEILING SPACE - APPROX. 3 FT. DROP
- 8 COMBUSTION AIR INTAKE AND EXHAUST VENT FOR SEALED COMBUSTION WATER HEATER (SEE PLUMBING DRAWINGS). PROVIDE PORTALS PLUS PLASTIFLASH WITH C-126 CAP (OR EQUAL) FOR ROOF PENETRATION.

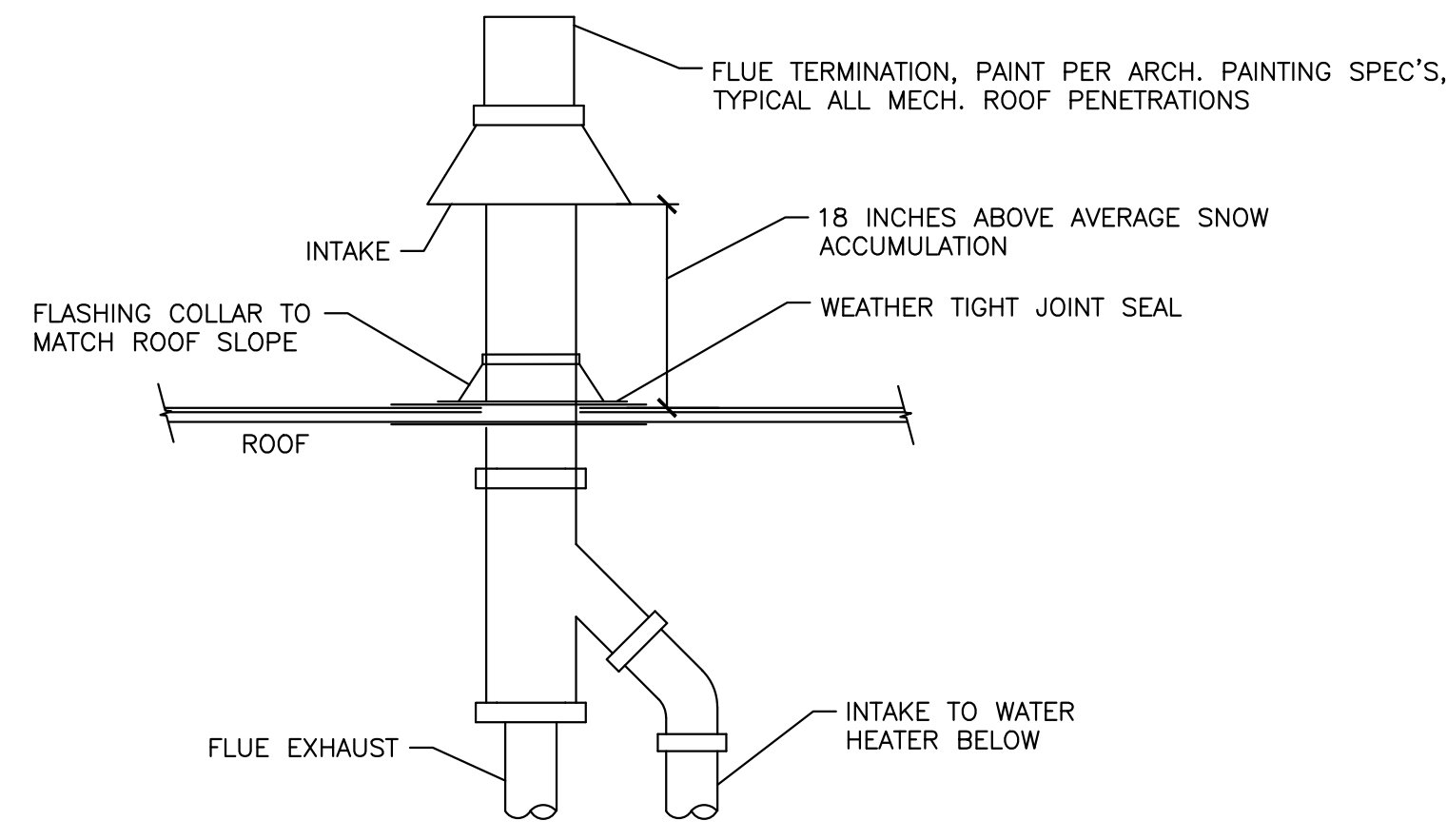
2 ROOF PLAN
SCALE: 1/4" = 1'-0"



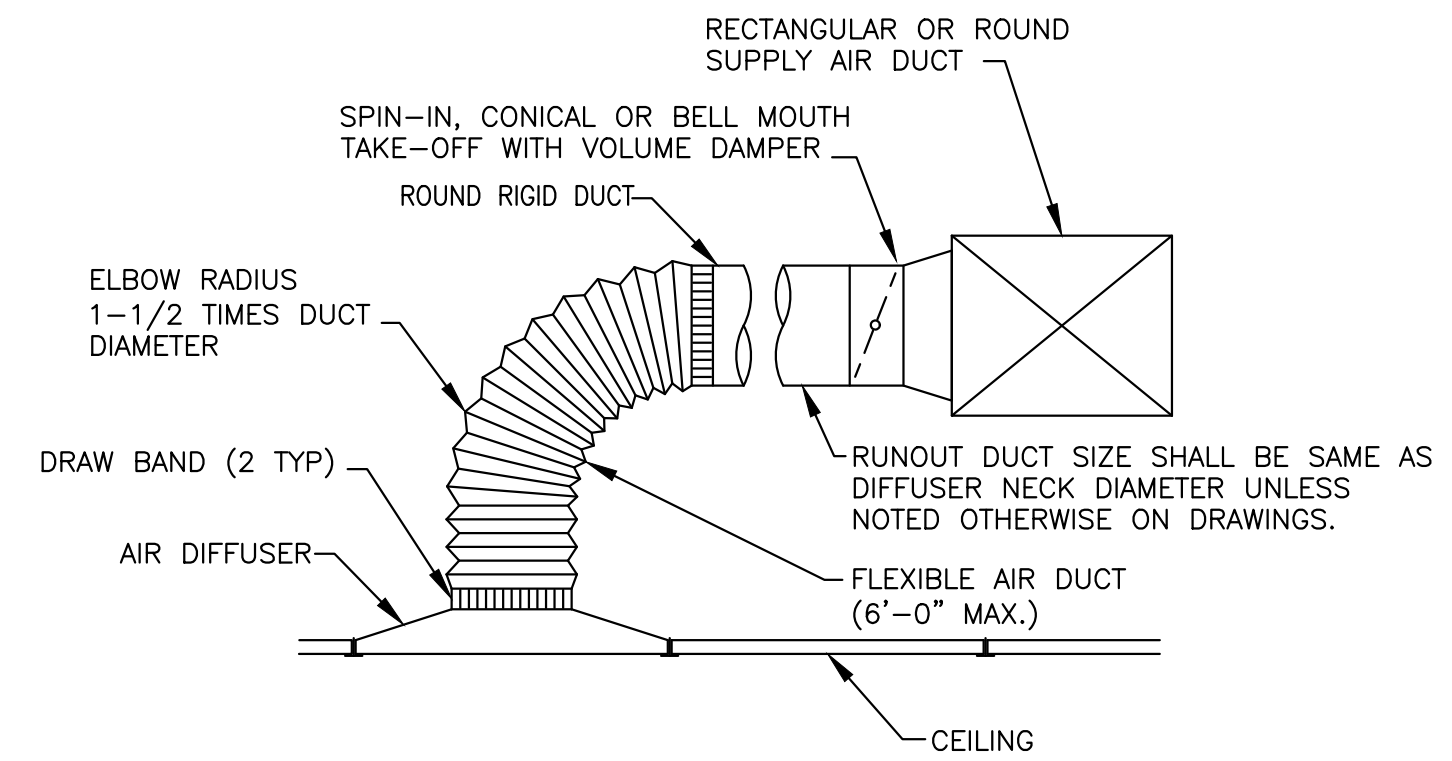
DATE ISSUED	
CONSTRUCTION	03/10/23
DRAWN BY	HB/DMS
CHECKED BY	WLW
JOB NO.	21219



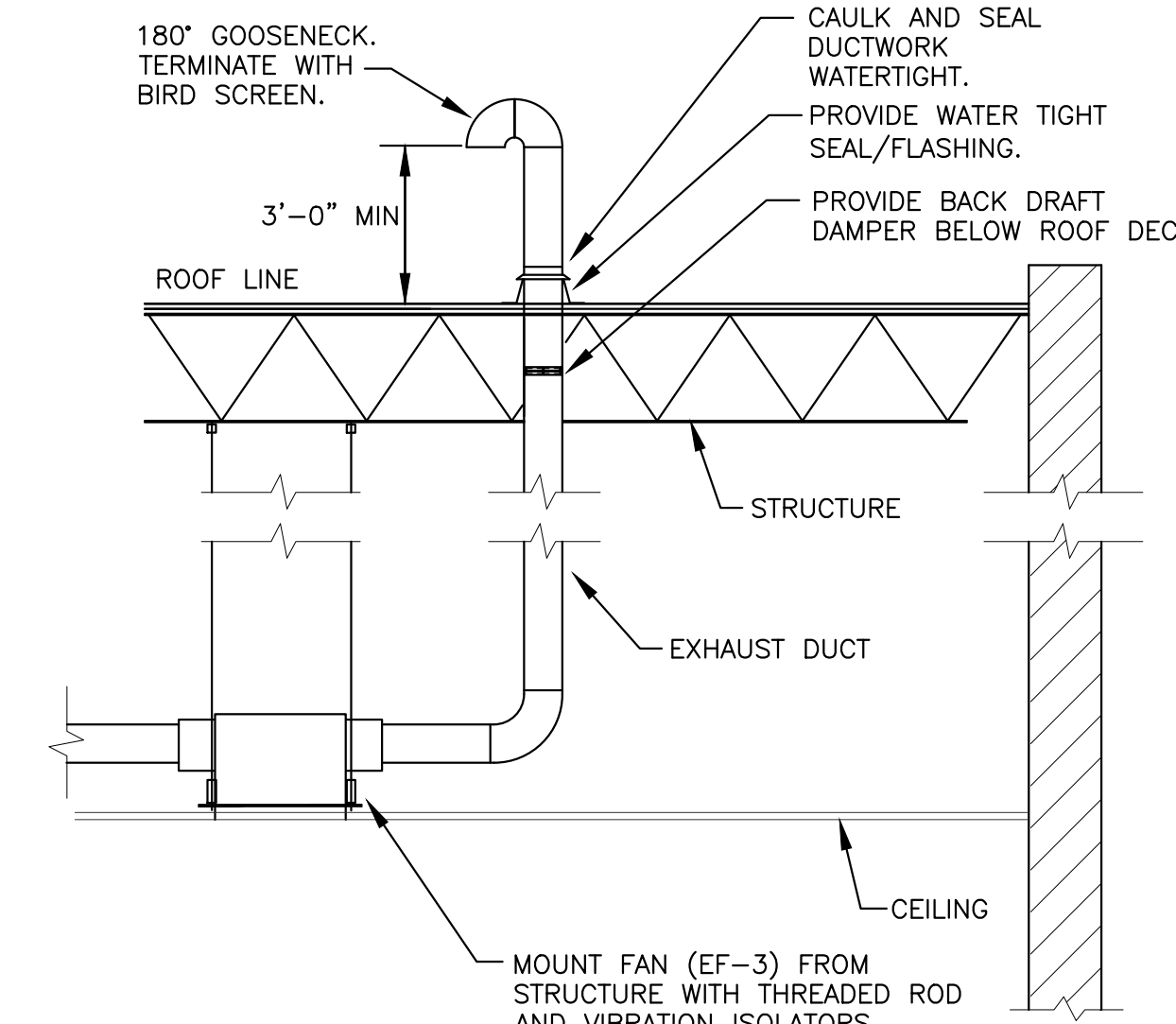
* SAME SIZE AS DIFFUSER NECK UNLESS NOTED OTHERWISE.
1 BRANCH DUCT CONNECTION
 SCALE: N.T.S.



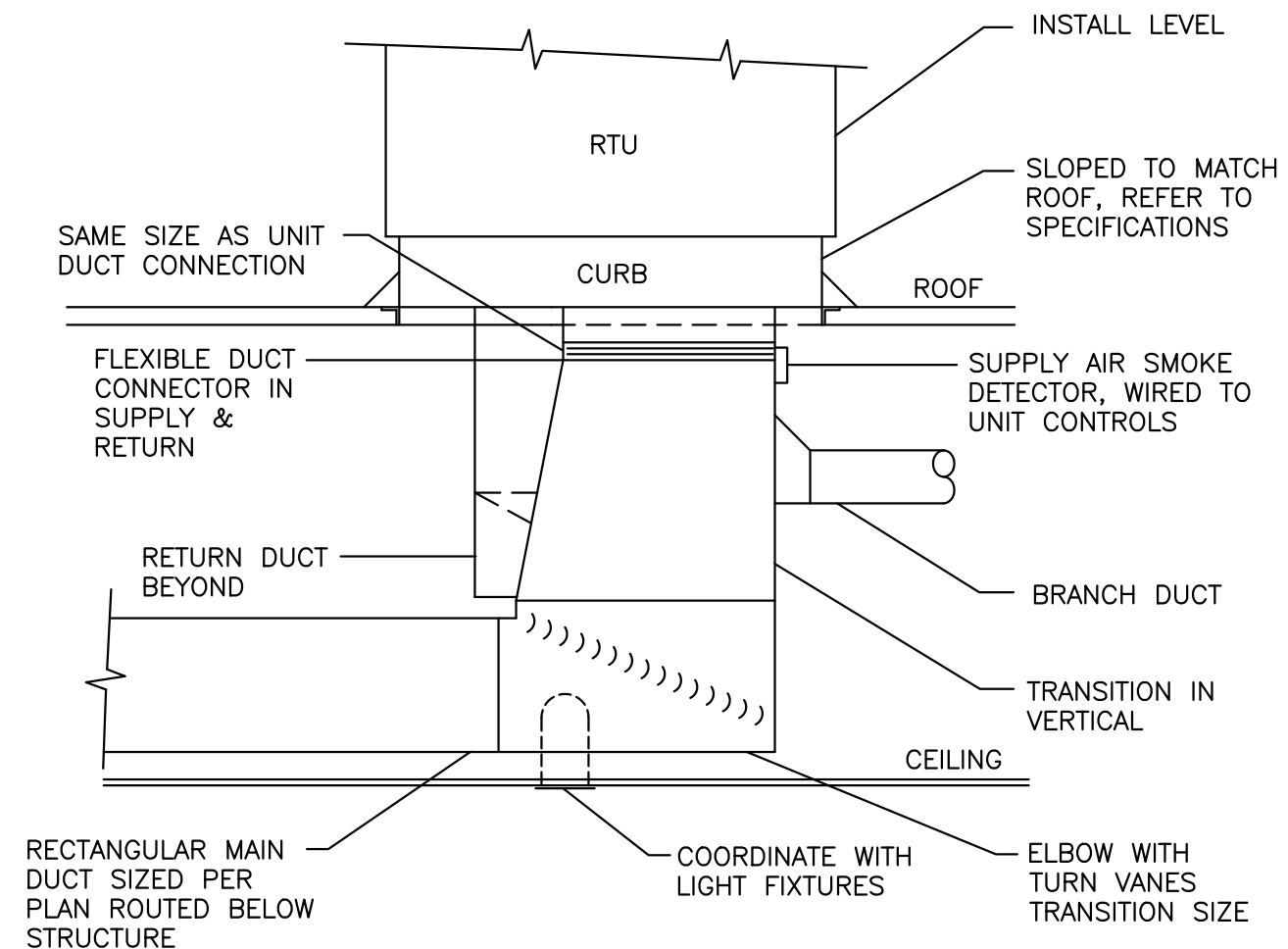
2 CONCENTRIC INTAKE/FLUE
 SCALE: N.T.S.



3 DUCT TO SUPPLY DIFFUSER
 SCALE: N.T.S.

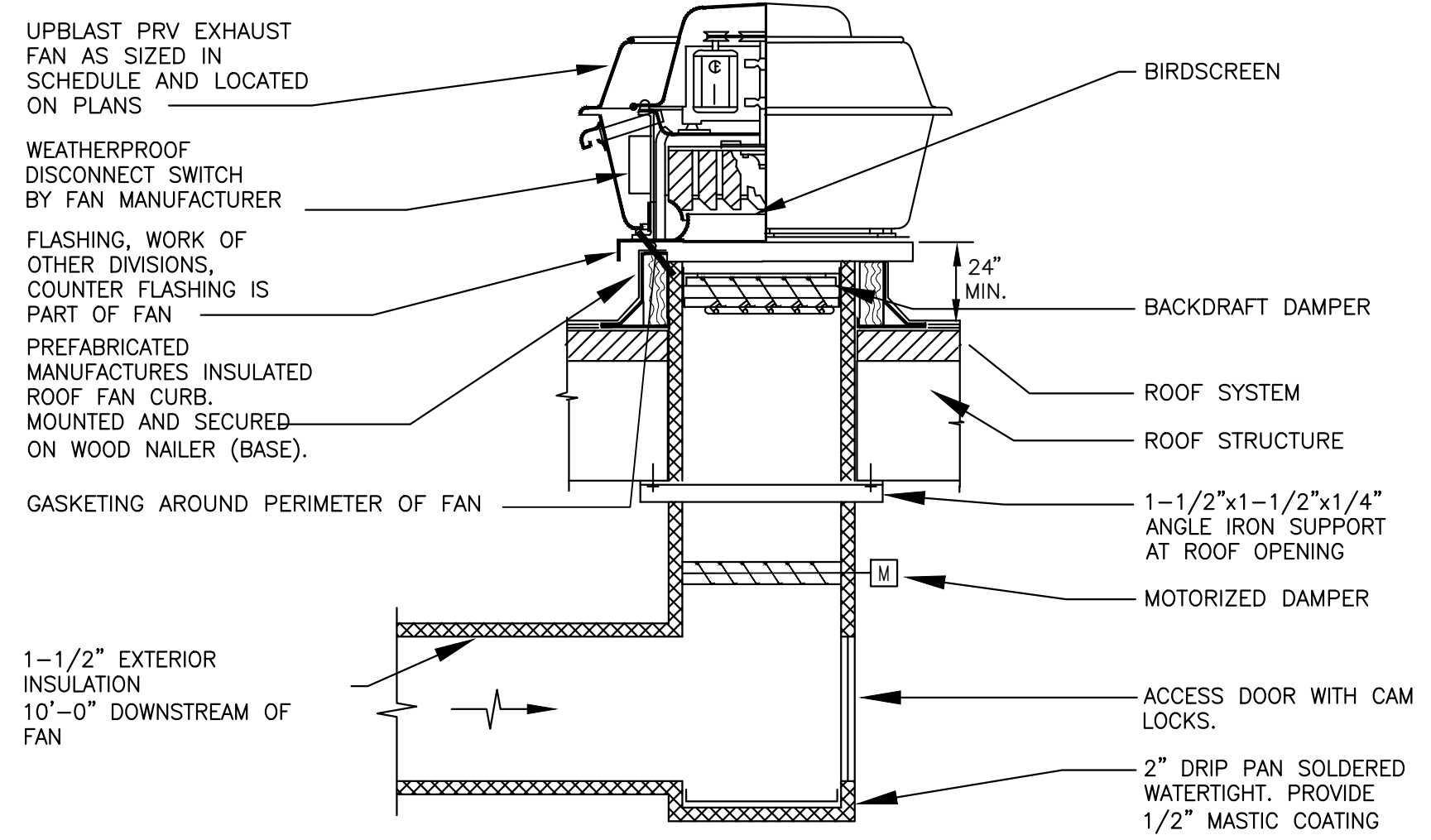


5 RESTROOM EXH/GOOSENECK DETAIL
 SCALE: N.T.S.



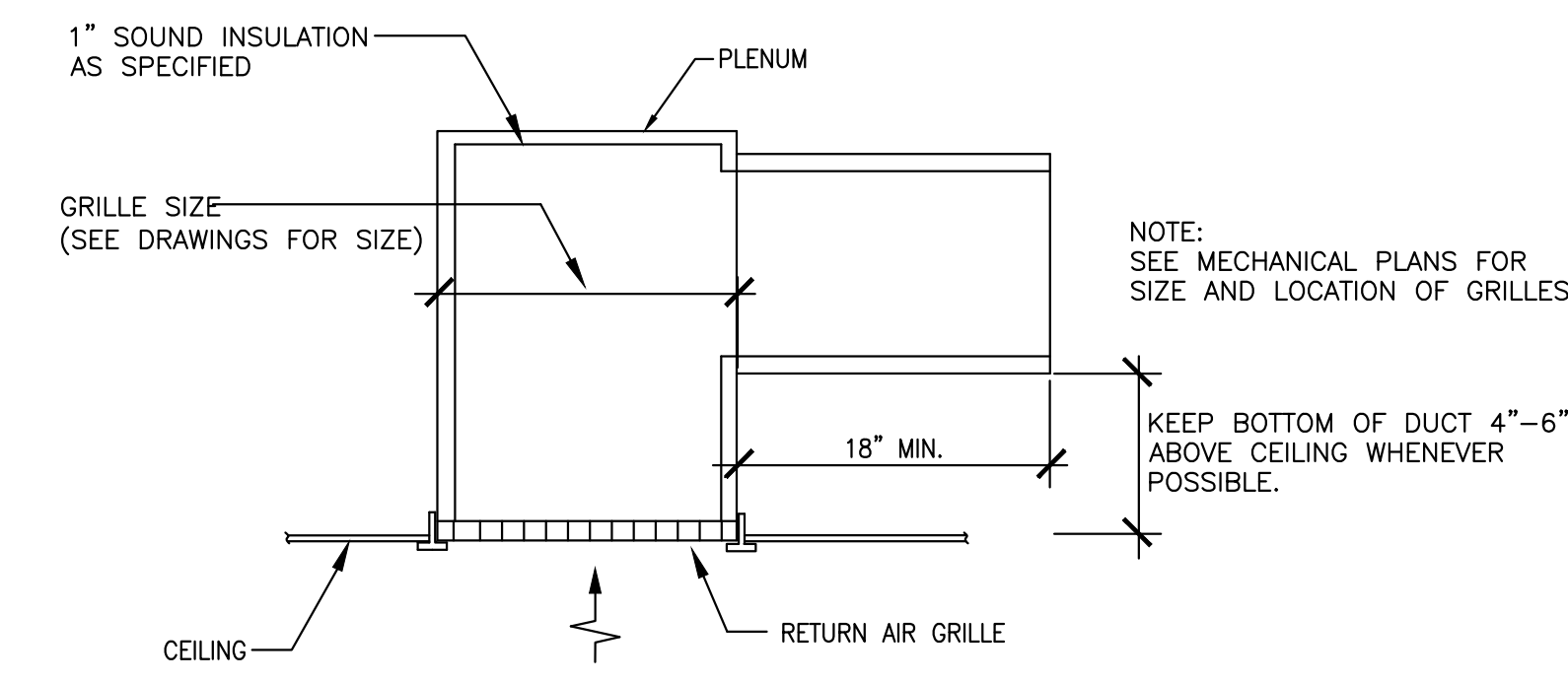
6 ROOFTOP UNIT
 SCALE: N.T.S.

4 NOT USED
 SCALE: N.T.S.



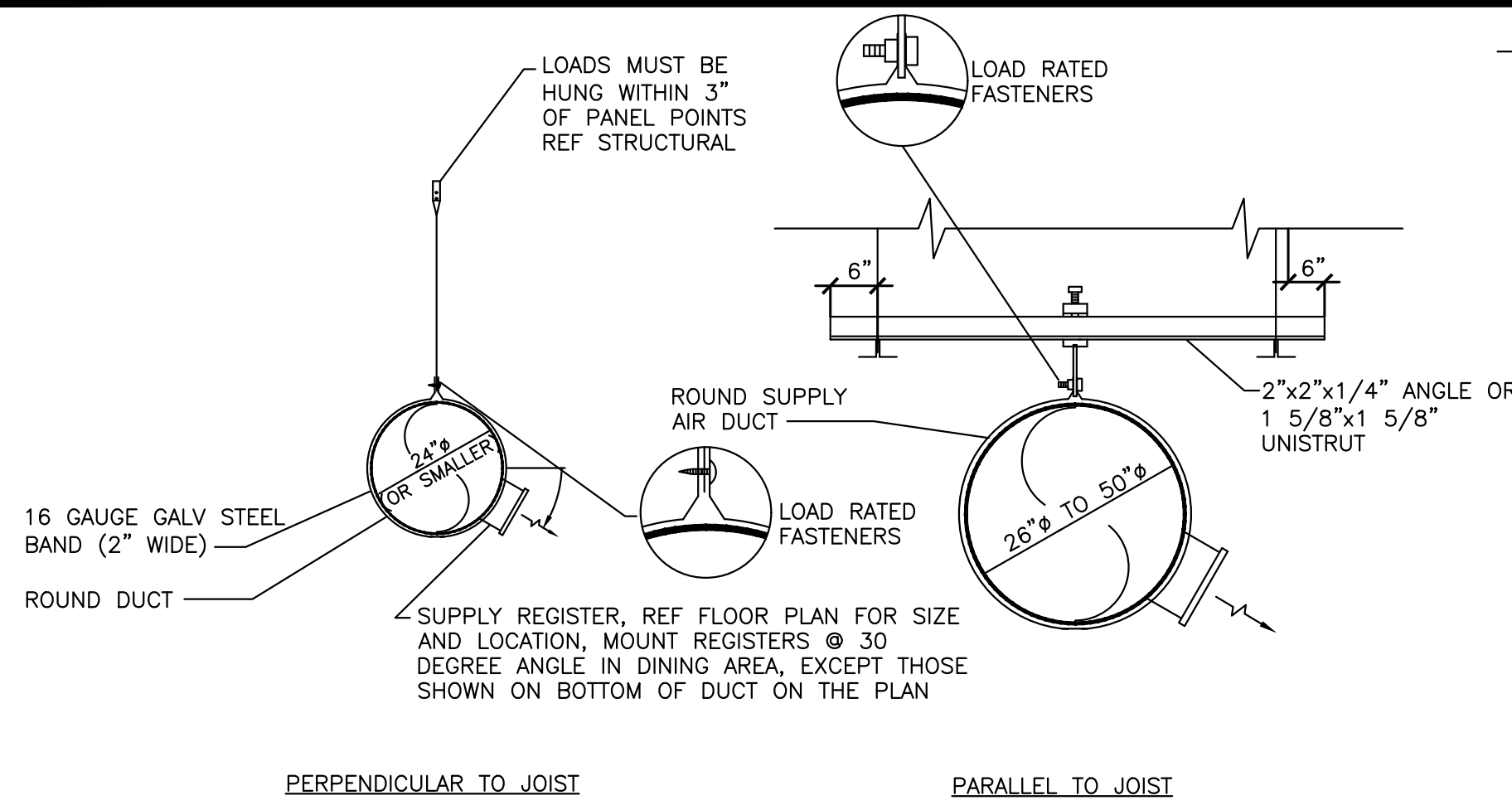
7 KITCHEN UPBLAST EXHAUST FAN DETAIL
 SCALE: N.T.S.

8 NOT USED
 SCALE: N.T.S.

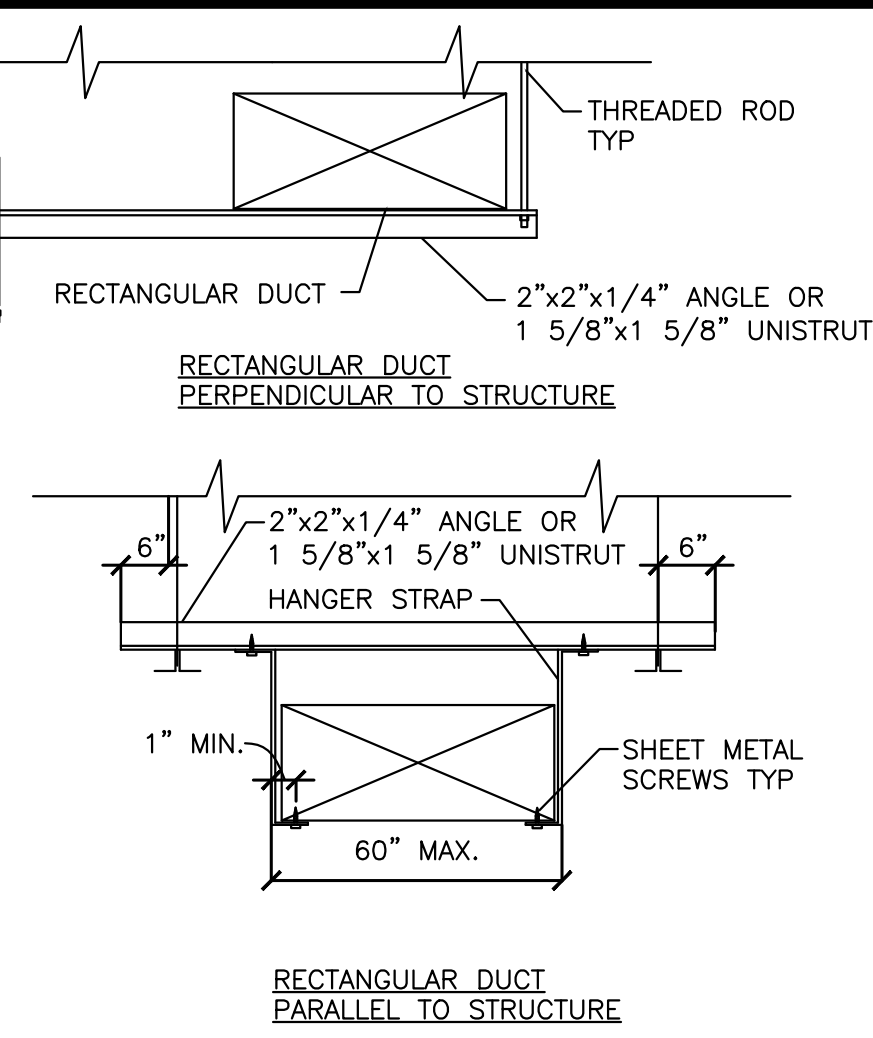


9 RETURN GRILLE DETAIL
 SCALE: N.T.S.

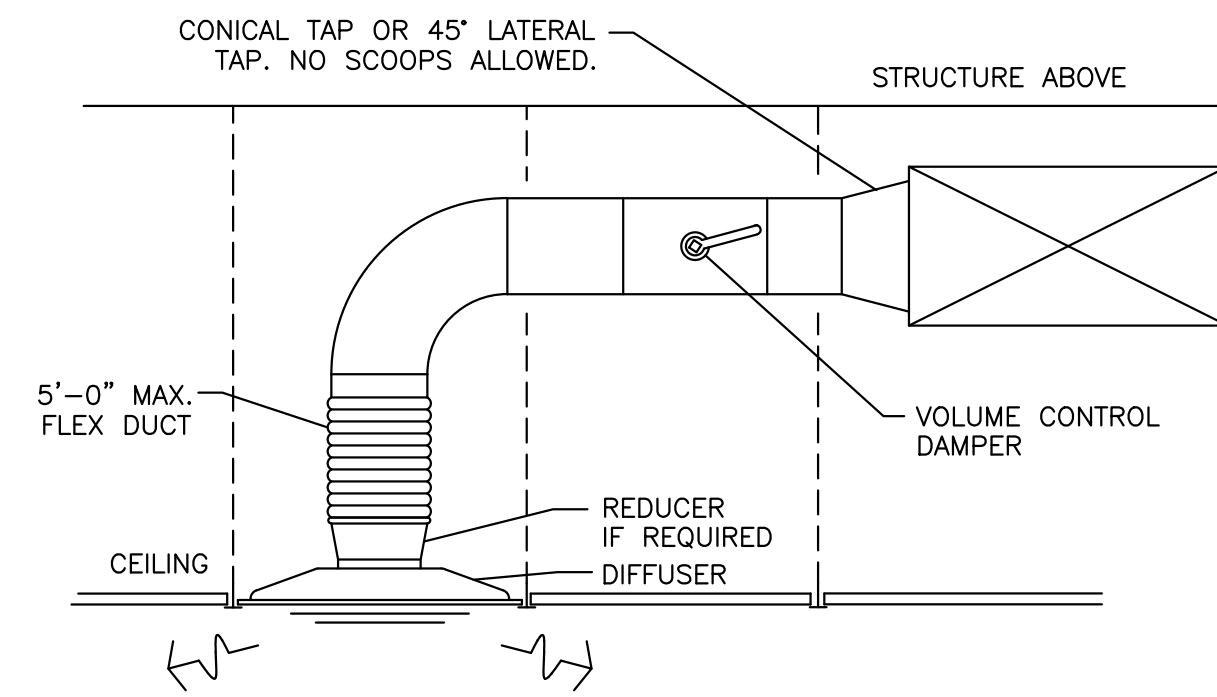
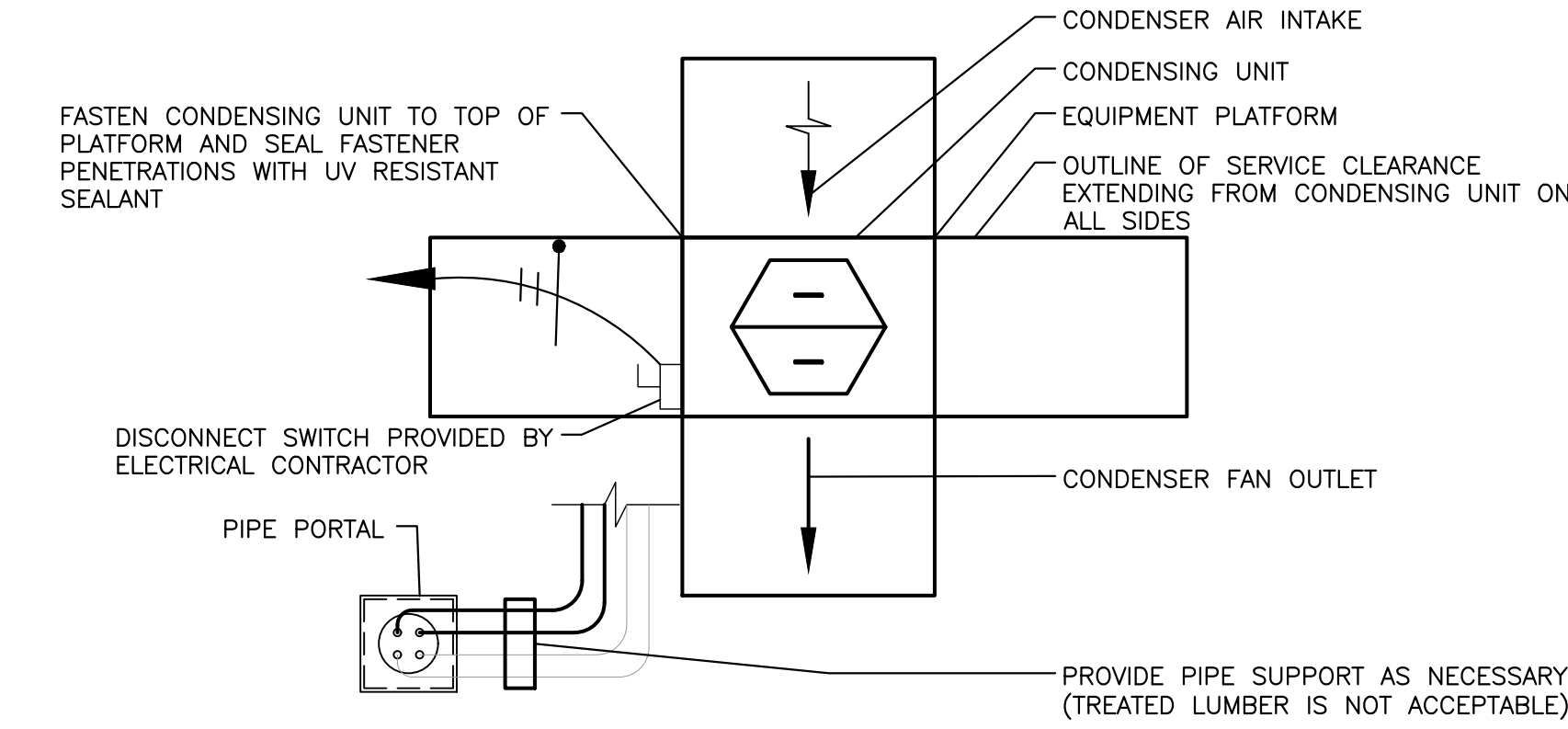




1 DUCT SUPPORT AND GRILLE
SCALE: N.T.S.



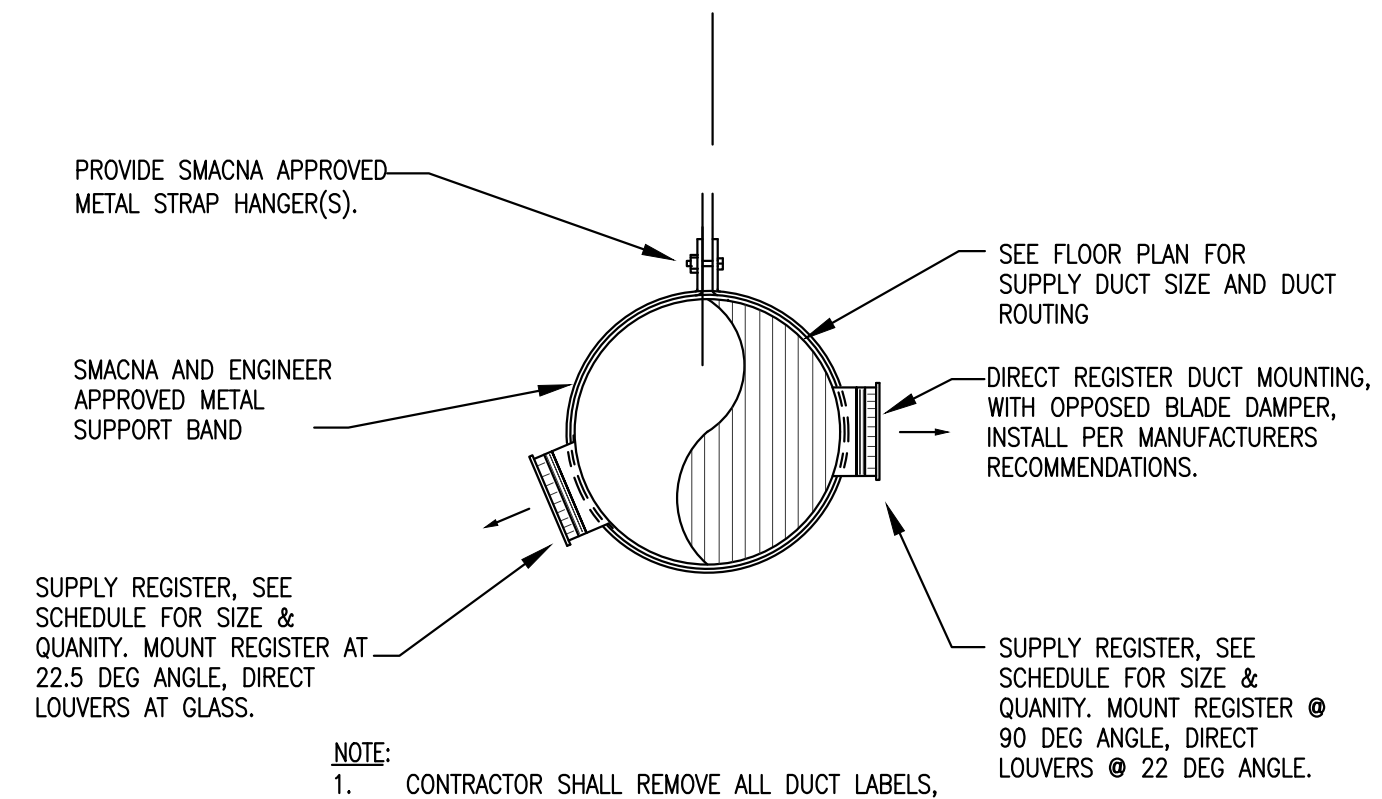
2 REMOTE CONDENSER UNIT
SCALE: N.T.S.



- USE IN VERTICAL ARRANGEMENT WHERE POSSIBLE. IF BENDING IS NECESSARY, SUPPORT FLEX DUCT TO MAXIMIZE BEND RADIUS AND TURN NO MORE THAN A TOTAL OF 90 DEGREES.
- PROVIDE AIRTIGHT CONNECTIONS TO RIGID ROUND DUCT AND AIR DEVICE.
- USE ONLY IN AREAS WITH A FINISHED CEILING.

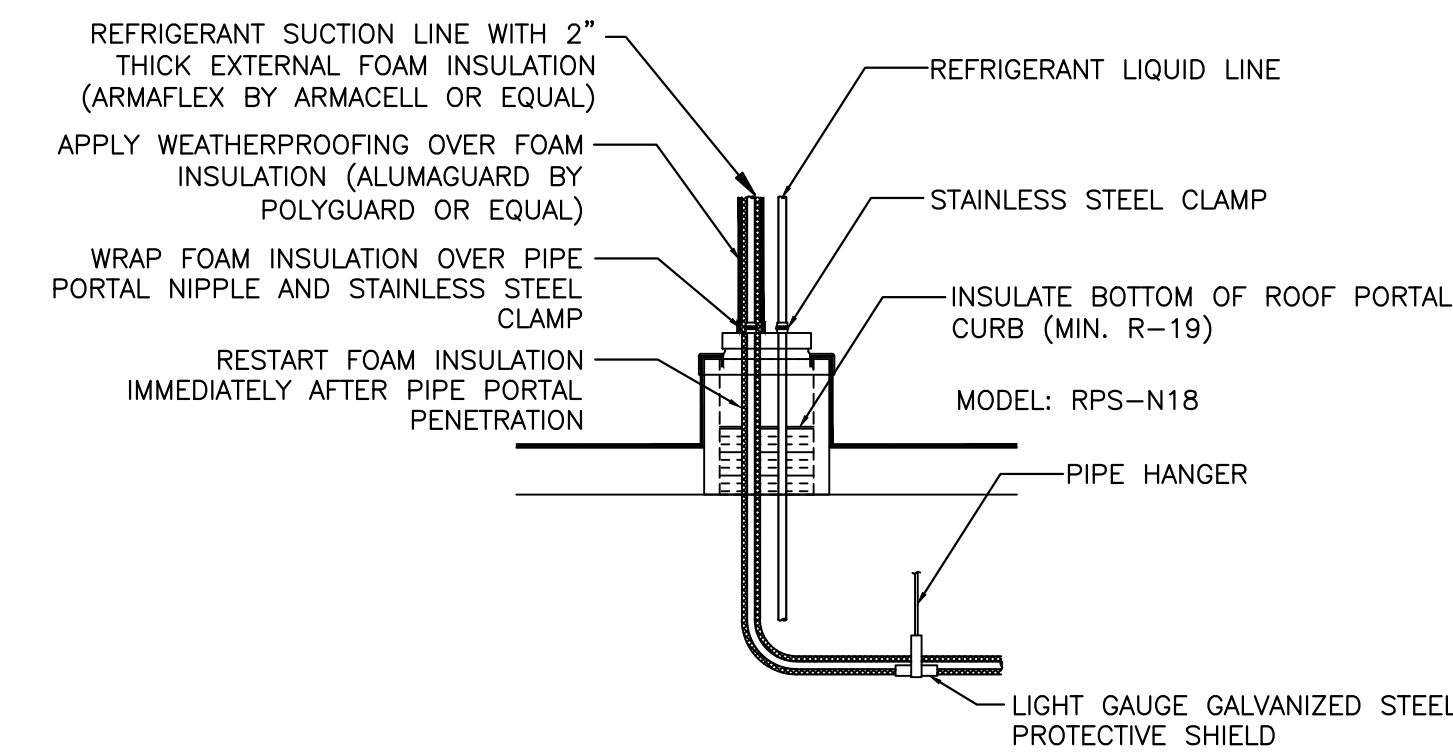
3 FLEXIBLE DUCT
SCALE: N.T.S.

4 DUCT MOUNTED DIFFUSER DETAIL
SCALE: N.T.S.

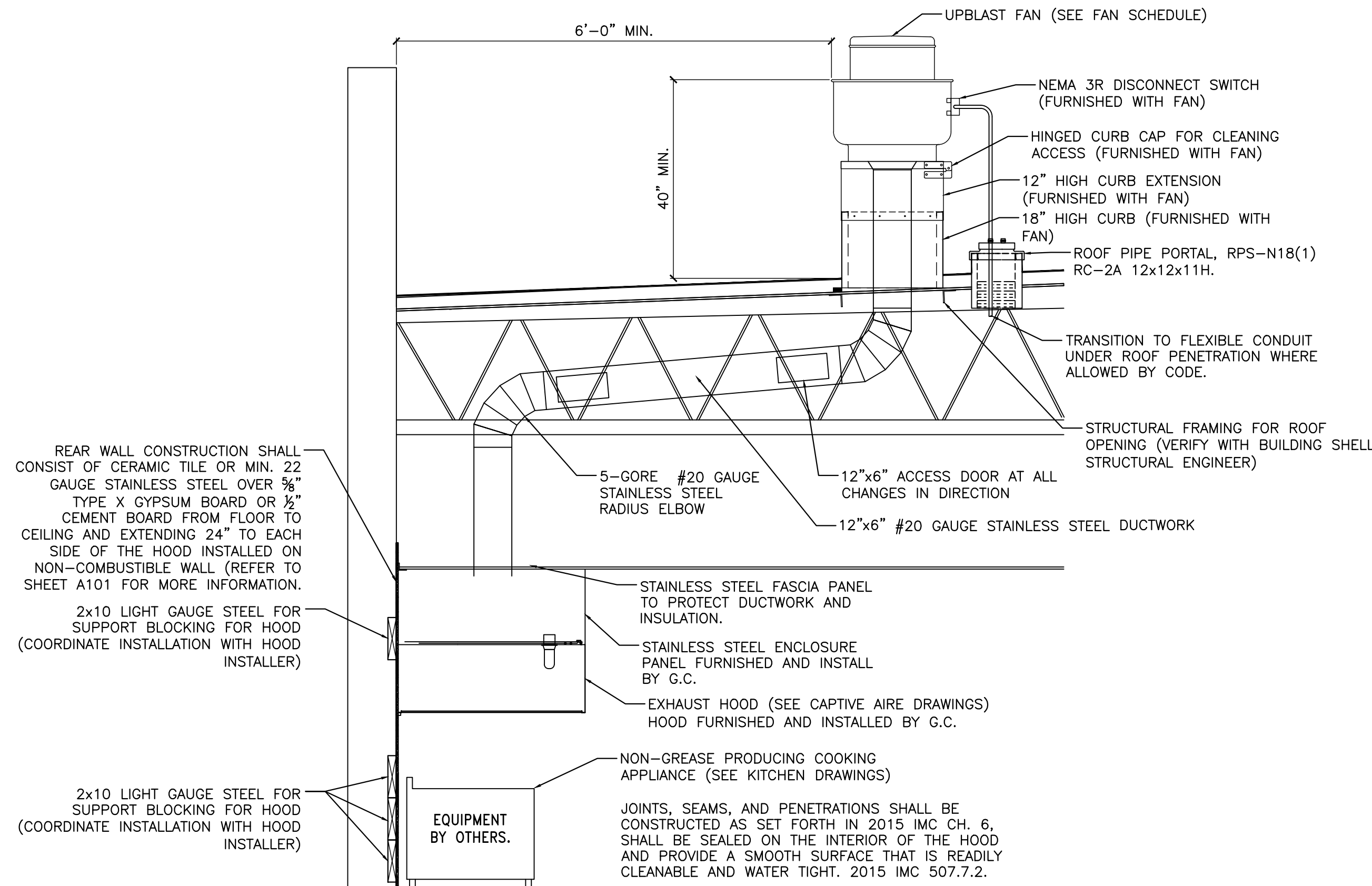


- NOTE:
- CONTRACTOR SHALL REMOVE ALL DUCT LABELS, CLEAN DUCTWORK AND REGISTERS ON EXPOSED DUCTWORK FOR AESTHETICS.
 - NO FLEXIBLE DUCT ALLOWED IN EXPOSED AREAS.
 - NO SADDLE TAPS ALLOWED PROVIDE TEE FITTINGS AS NECESSARY.

5 EXPOSED DUCT/REGISTER SUPPORT
SCALE: N.T.S.



6 REFRIGERANT PIPE INSTALLATION
SCALE: N.T.S.



7 KITCHEN EXHAUST HOOD INSTALLATION
SCALE: N.T.S.

FOR QUESTIONS, CALL THE
Minnesota Office
REGION 75
PHONE: (763) 432-5354
EMAIL: reg75@captiveaire.com

HOOD INFORMATION - JOB#5883107

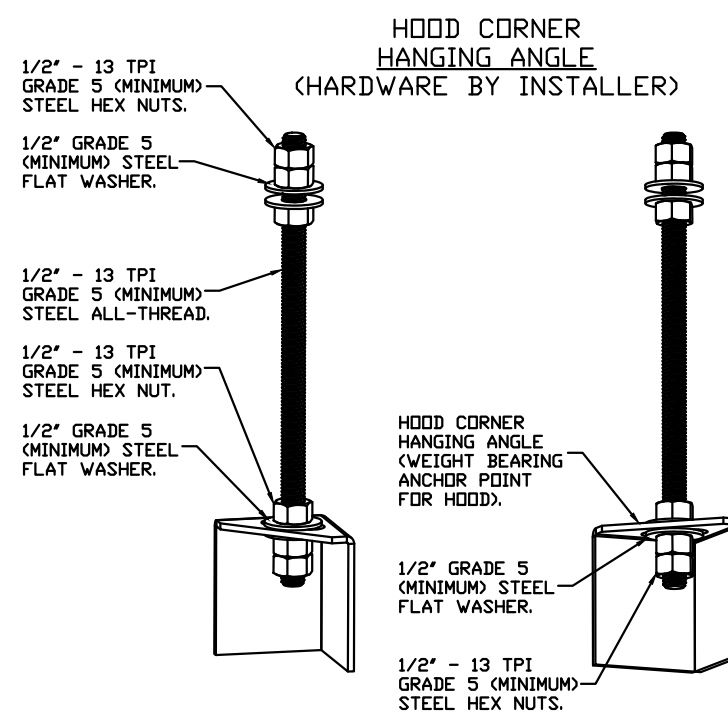
HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA		CFM	VEL	SP
1	Item #50	6624 VHB-G	CAPTIVEAIRE	5' 0"	700 DEG	II	N/A	200	1000	4'	12"	1000	1273	-0.151'	430 SS 100%	ALONE	ALONE
2	Item #67	4824 VHB-G	CAPTIVEAIRE	4' 0"	700 DEG	II	N/A	150	600	4'	10"	600	1100	-0.090'	430 SS 100%	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT	
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM	SIZE			MODEL #
1	Item #50						3	L55 SERIES E26	NO						NO	254 LBS
2	Item #67						0								NO	179 LBS

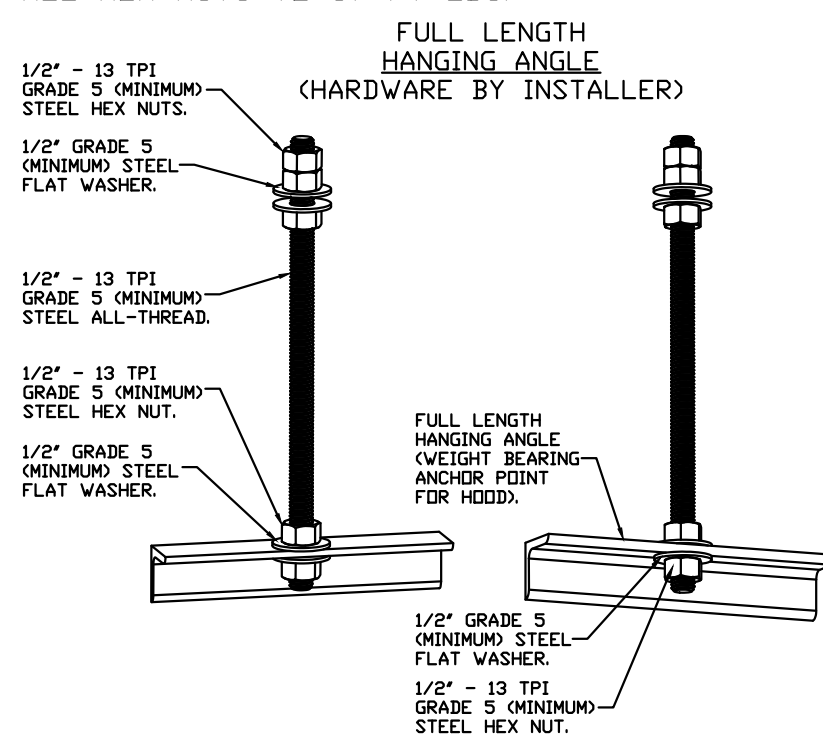
HOOD OPTIONS

HOOD NO	TAG	OPTION
1	Item #50	FIELD WRAPPER 22.00' HIGH FRONT, RIGHT.
2	Item #67	FIELD WRAPPER 22.00' HIGH FRONT, RIGHT.



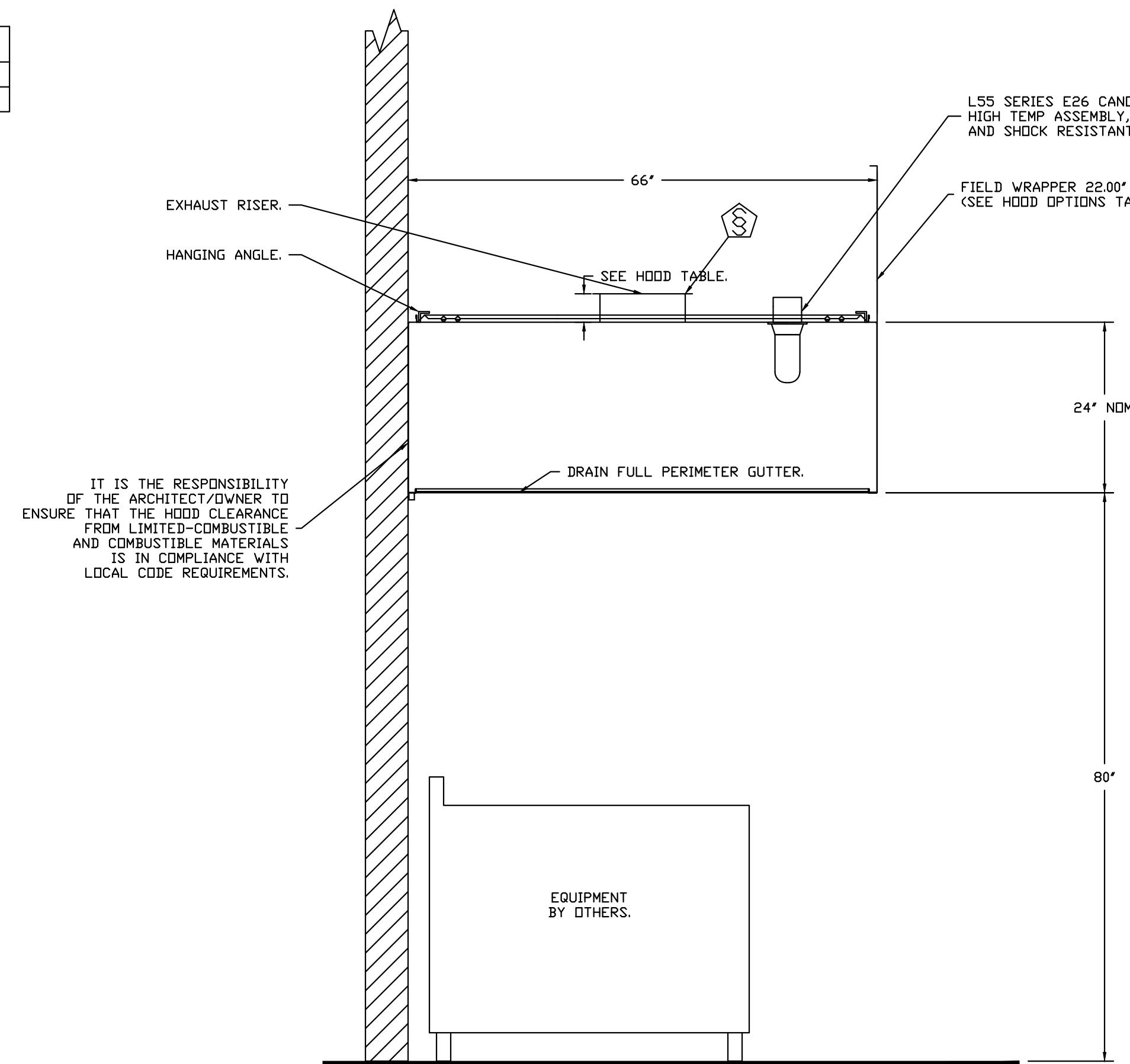
ASSEMBLY INSTRUCTIONS

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.

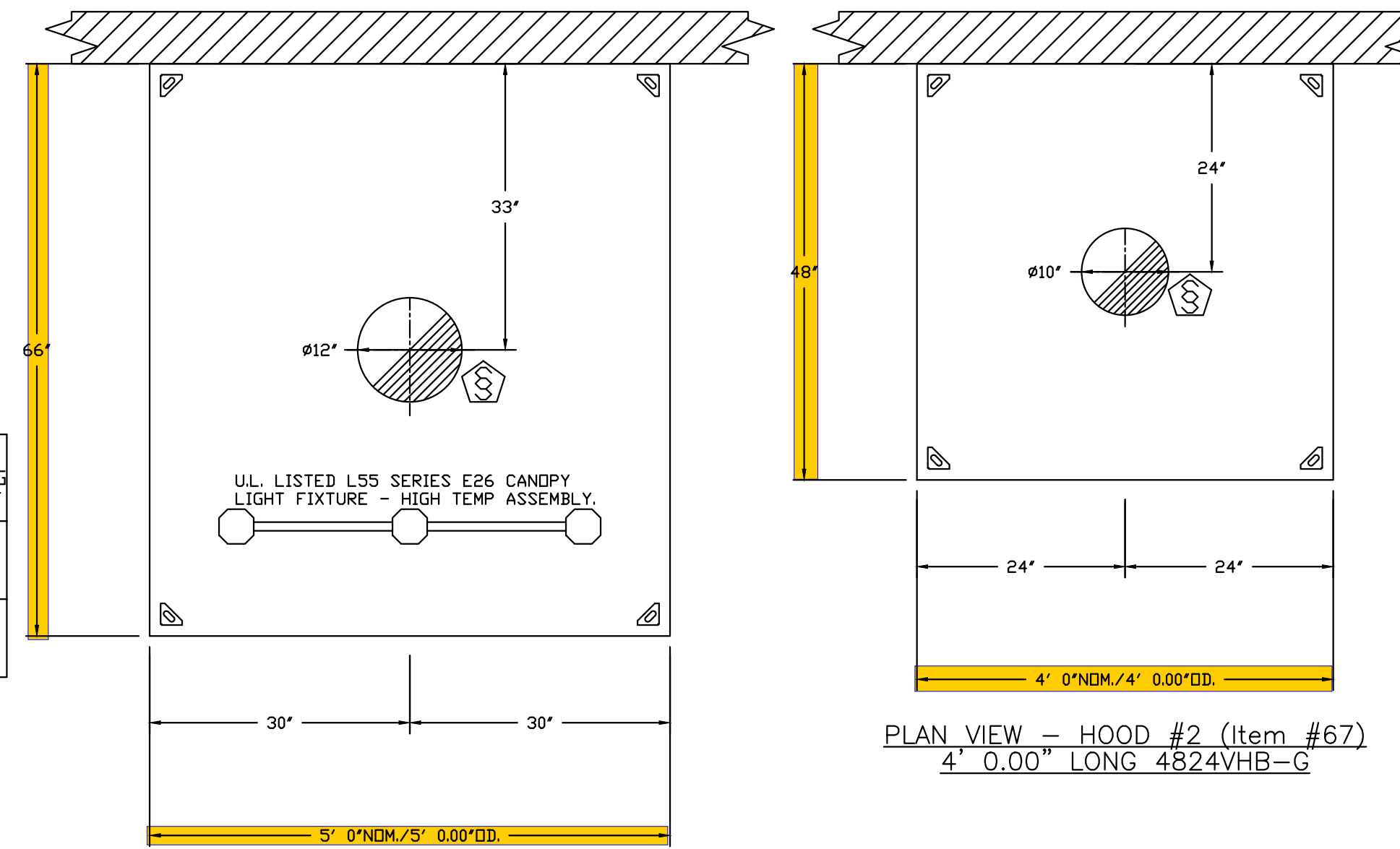


ASSEMBLY INSTRUCTIONS

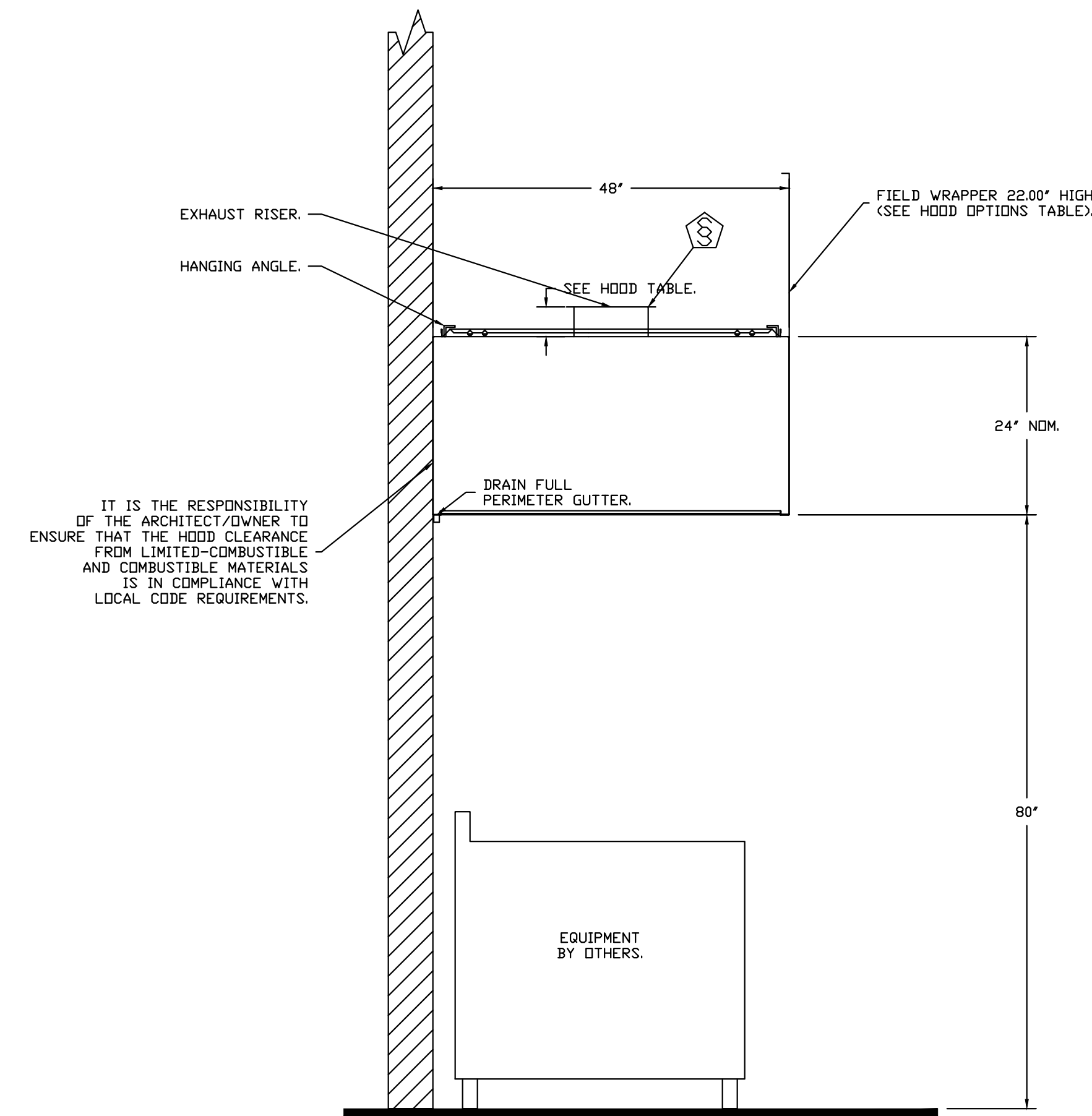
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**SECTION VIEW - MODEL 6624VHB-G
HOOD - #1 (Item #50)**



**PLAN VIEW - HOOD #1 (Item #50)
5' 0.00" LONG 6624VHB-G**



**SECTION VIEW - MODEL 4824VHB-G
HOOD - #2 (Item #67)**

**PLAN VIEW - HOOD #2 (Item #67)
4' 0.00" LONG 4824VHB-G**

OWNER SELECTED EQUIPMENT WITH
MANUFACTURER CUT SHEET
FOR INFORMATION PURPOSES ONLY



emanuelson-podas
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Emanuelson-Podas, Inc.
7705 Bush Lake Road
Edina, MN 55439
(952) 930-0050 | www.epinc.com

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03/10/23

CRISP & GREEN
TENANT IMPROVEMENT

WEST PLACE
7019 SLIGO DR., SUITE #C101
MADISON, WI 53717

CAPTIVEAIRE DRAWINGS

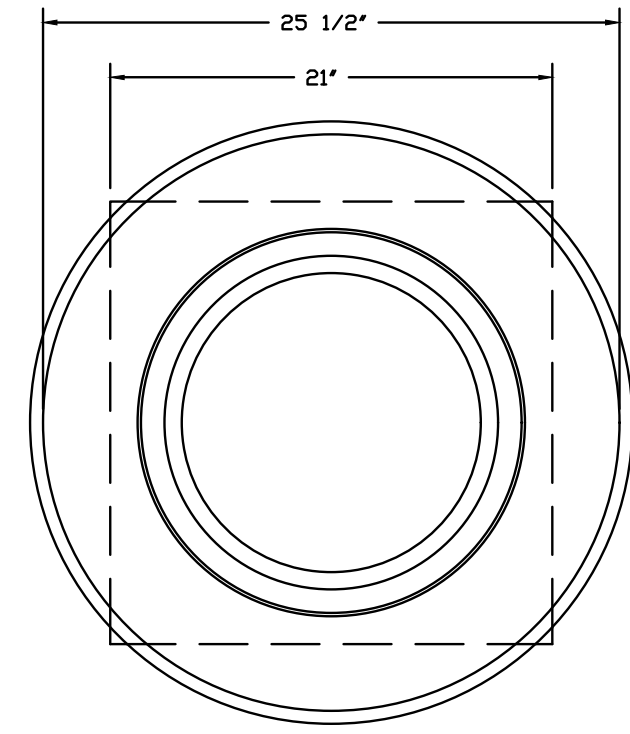
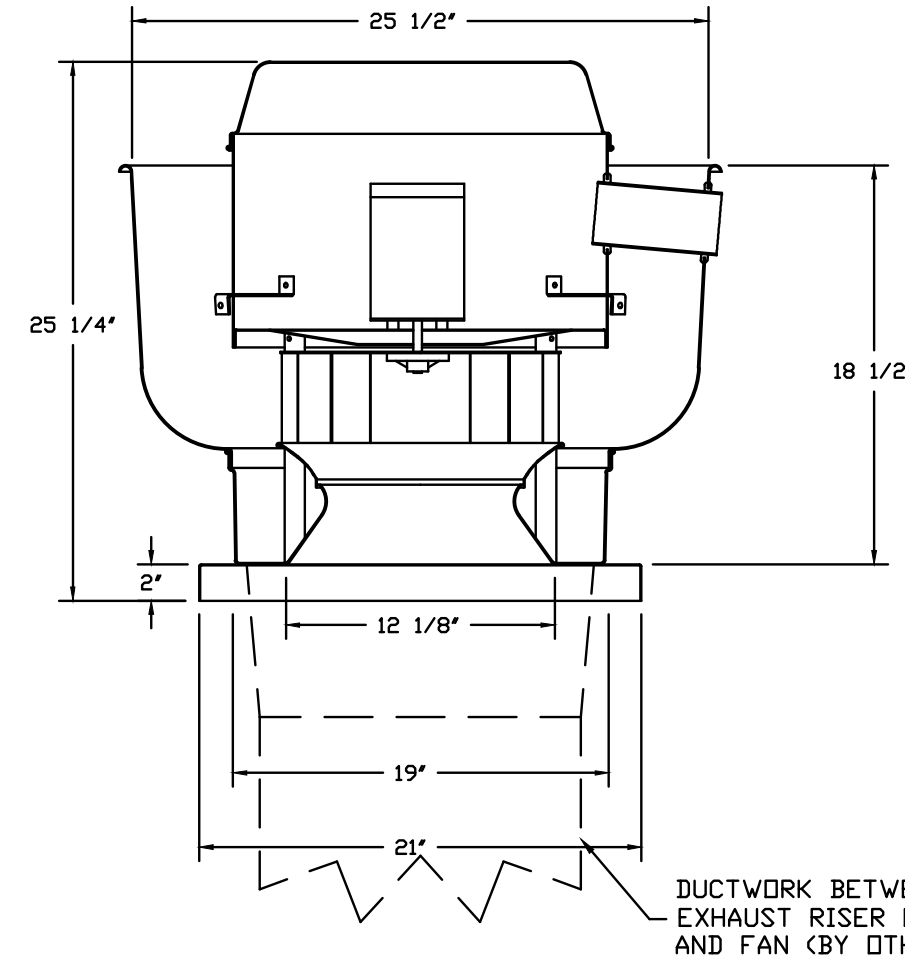


DATE ISSUED
CONSTRUCTION 03/10/23

DRAWN BY
CHECKED BY
JOB NO. 21219

M500

FAN #2 DU33HFA - EXHAUST FAN



TOP VIEW

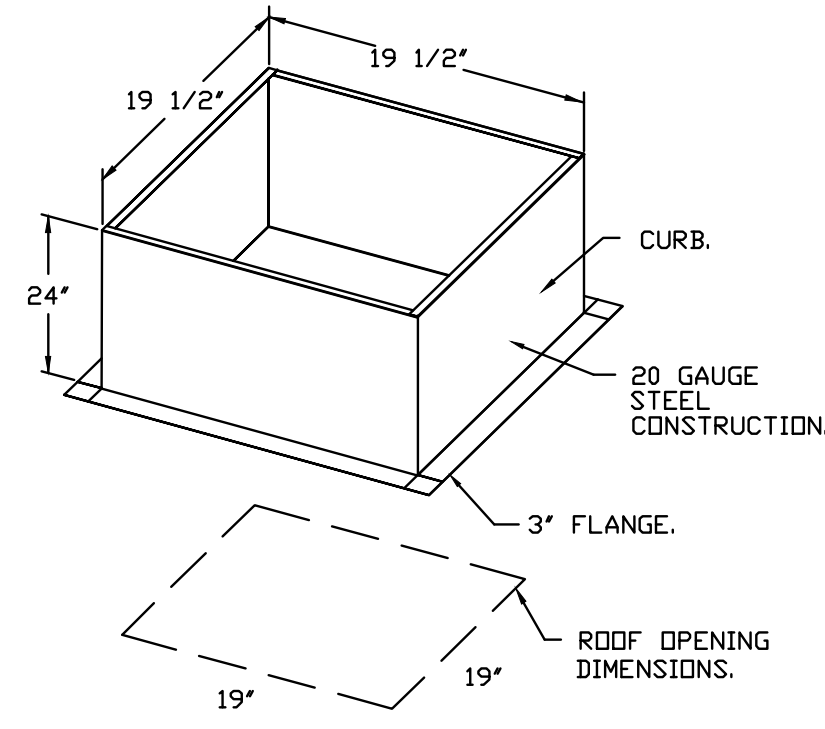
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- NEMA 3R SAFETY DISCONNECT SWITCH.

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.

OPTIONS

- ECM WIRING PACKAGE - EXHAUST - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -HSC- (TELED) CW ROTATION.
- 2 YEAR PARTS WARRANTY.



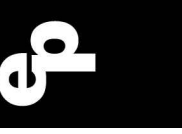
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 7195 Bush Lake Road
 Edina, MN 55439
 (952) 930-0050 | www.epinc.com

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reprise DESIGN
 Architecture, Inc.
 12400 Portland Avenue South
 Burnsville, MN 55337
 Office: (952) 252-4642
 Fax: (952) 252-4642

