1 **MECHANICAL FLOOR PLAN**
M101 1/4" = 1'-0"

PROJECT NORTH

PRIORITY/CONSTRUCTION

THE FOLLOWING IS THE ORDER OF PRIORITY FOR CONSTRUCTION SPACE:
a. FIRST: DUCTWORK
b. SECOND: FIRE PROTECTION PIPING
c. THIRD: ANY PIPING WITH SLOPE REQUIREMENTS.
d. FOURTH: OTHER PIPING
e. FIFTH: CONDUIT

MECHANICAL GENERAL NOTES:

1. ALL EXPOSED RECTANGULAR DUCTWORK SHALL BE INTERNALLY LINED. REFER TO SPECIFICATIONS AND DETAILS FOR MORE INFORMATION.

SHEET KEYNOTES

1. ROOFTOP UNIT ON FULL PERIMETER ROOF CURB. REFER TO SHEET MP200 FOR ADDITIONAL INFORMATION.
2. SUPPLY AIR DUCT FROM UNIT ON ROOF. TRANSITION TO DUCT SIZE AS INDICATED WITH-IN THE ROOF CURB.
3. RETURN AIR DUCT FROM UNIT ON ROOF. TRANSITION TO DUCT SIZE AS INDICATED WITH-IN THE ROOF CURB.
4. DUCTWORK LOCATED ABOVE FINISHED CEILING. COORDINATE W/ STRUCTURE.
5. MAINTAIN NEC CLEARANCE TO ELECTRICAL GEAR, TYPICAL.
6. PROVIDE MANUAL BALANCING DAMPER, TYPICAL.
7. EXPOSED RECTANGULAR DUCTWORK TO BE INTERNALLY LINED.
8. RESTROOM EXHAUST FAN ON ROOF. REFER TO SHEET MP200 FOR ADDITIONAL INFORMATION.
9. RESTROOM EXHAUST DUCT UP TO FAN ON ROOF, COORDINATE W/ STRUCTURE.
10. SLOPE DISHWASHER EXHAUST DOWN @ 1/4" PER FT TO HOOD.
11. MAKE-UP AIR CONNECTIONS TO SUPPLY AIR PLENUM IN FRONT OF HOOD. REFER TO HOOD DRAWINGS, TYPICAL.
12. KITCHEN HOOD EXHAUST FAN ON ROOF. REFER TO SHEET MP200 AND HOOD DRAWINGS FOR ADDITIONAL INFORMATION.
13. DISHWASHER EXHAUST FAN ON ROOF. REFER TO SHEET MP200 AND HOOD DRAWINGS FOR ADDITIONAL INFORMATION.
14. KITCHEN HOOD EXHAUST DUCT UP TO FAN ON ROOF. COORDINATE WITH STRUCTURE. DUCT SHALL BE ENCAPSULATED WITH EXHAUST DUCT WRAP IF REQUIRED BY CODE. REFER TO DETAIL ON SHEET M201. DUCT SHALL BE PRE-FAB GREASE DUCT.
15. KITCHEN EXHAUST HOOD DUCT DOWN TO HOOD COLLAR. WELD DUCT ELBOW TO HOOD COLLAR. TYPICAL. REFER TO HOOD DRAWINGS.
16. HOOD CONTROL CABINET, REF HOOD DRAWINGS.
17. KITCHEN EXHAUST HOOD FURNISHED BY OWNER, INSTALLED BY MECHANICAL CONTRACTOR TYPICAL OF 4. REFER TO SHEET MH101 THRU MH106.
18. DISHWASHER EXHAUST DUCT UP TO FAN ON ROOF. DUCTWORK SHALL BE STAINLESS STEEL SEALED LIQUID TIGHT. OFFSET TO HOOD COLLAR.
19. PROVIDE REMOTE TEMPERATURE & HUMIDITY SENSOR ON WALL @ 72" AFF. INTERLOCK W/ THERMOSTAT IN OFFICE.
20. PERFORATED GRILLE PER DETAIL B4 ON SHEET M201. TYPICAL FOR THIS DEVICE.
21. DISHWASHER HOOD, FURNISHED BY OWNER AND INSTALLED BY THE MECHANICAL CONTRACTOR. REFER TO SHEETS MH101 THRU MH106.
22. T-STATS FOR REMOTE SENSORS. REFER TO DETAIL ON SHEET M401 AND ELEVATION ON E102.
23. REFER TO PLUMBING DRAWINGS FOR COMBUSTION VENTING OF WATER HEATERS.
24. DUCT MOUNTED SMOKE DETECTOR FOR UNIT SHUT DOWN. DETECTOR SHALL ACTIVATE A VISIBLE & AUDIBLE SUPERVISORY SIGNAL @ A CONSTANTLY ATTENDED LOCATION. TYPICAL.
25. DUCTWORK TO RUN UNDERNEATH ROOF STRUCTURE AS HIGH AS POSSIBLE.
26. SUPPLY AIR CONNECTIONS WITH CONTROL DAMPER TO SUPPLY AIR PLENUM IN FRONT OF HOOD. REFER TO HOOD DRAWINGS, TYPICAL.
27. PROVIDE SPLITTER DAMPER W/ TURNING VANES. TYPICAL.
28. ROOFTOP UNIT SMOKE DETECTOR RESETS. REFER TO ELEVATION ON E102.
29. RETURN AIR GRILLE IN THE UNDERSIDE OF DUCT.
30. PROVIDE REMOTE TEMPERATURE SENSOR #47W36 ON WALL AT 54" A.F.F. INTERLOCK WITH THERMOSTAT IN OFFICE.
31. MAKE-UP AIR UNIT ON ROOF. INTERLOCK WITH HOOD CONTROLS. REFER TO HOOD DRAWINGS, SHEETS MH101 THRU MH106 AND SHEET MP200 FOR ADDITIONAL INFORMATION.
32. MAKE-UP AIR DUCT UP TO UNIT ON ROOF.
33. RETURN AIR DUCT SHALL BE INTERNALLY LINED, TYPICAL.
34. HOOD UTILITY FIRE SUPPRESSION CABINET MOUNTED AS HIGH AS POSSIBLE WITHIN SPACE. REFER TO HOOD DRAWINGS.
35. PROVIDE AND INSTALL REFRIGERANT LINE SET AND INSULATION TO ASSOCIATED CONDENSING UNIT OUTSIDE. AVOID RUNNING PIPING DIRECTLY OVER ELECTRICAL EQUIPMENT. SEAL WALL PENETRATION WEATHER TIGHT.

OUTBACK STEAKHOUSE®

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SEAL

BLOOMIN' BRANDS
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JOEY PROTOTYPE (2022.2 RELEASE)
STORE #2045
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

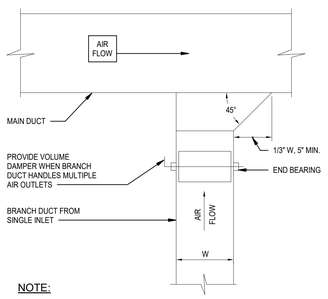
SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES
4	09/27/2024	PROTOTYPE UPDATES
5	11/27/2024	PROTOTYPE UPDATES
6	01/31/2025	ISSUED FOR CONSTRUCTION

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
MECHANICAL PLAN

SHEET NO. M101
PROJ. NO. 2023231.05

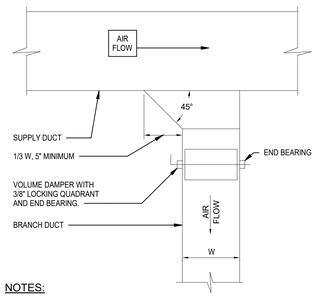


NOTE:

1. NOT PERMITTED AT END OF DUCT. SINGLE OR DOUBLE ELBOWS REQUIRED.

D1 / M201 **RECTANGULAR RETURN DUCT DETAIL**

NTS

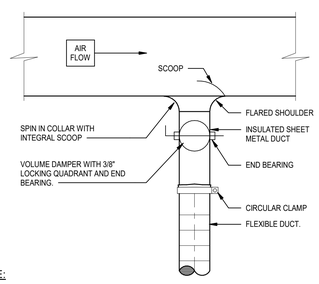


NOTES:

1. ROUND DUCT TAKEOFFS ARE SIMILAR EXCEPT HAVE SPIN-IN COLLAR WITH INTEGRAL SCOOP.

D2 / M201 **SQUARE DUCT DETAIL**

NTS

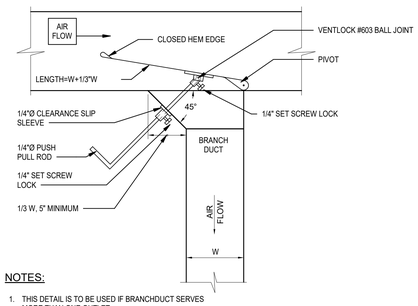


NOTE:

1. REFER TO FLOOR PLANS AND SPECIFICATIONS FOR DUCT INSULATION REQUIREMENTS.

D3 / M201 **ROUND DUCT DETAIL**

NTS

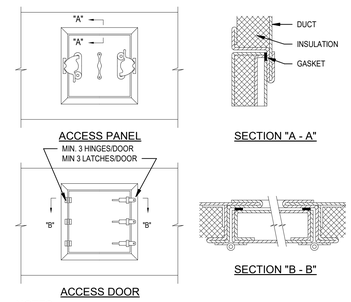


NOTES:

1. THIS DETAIL IS TO BE USED IF BRANCHDUCT SERVES MORE THAN ONE OUTLET.

D4 / M201 **RECTANGULAR SUPPLY DUCT W/CLINCH COLLAR**

NTS

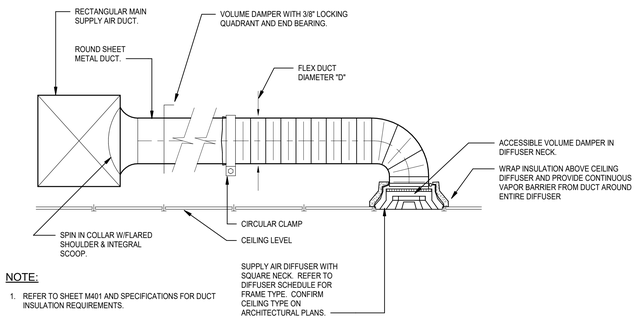


NOTES:

1. LATCHES SHALL BE OF THE WEDGE TYPE TO CLOSE DOORS TIGHTLY.
2. HINGES ON THE ACCESS DOORS SHALL HAVE NON-CORROSIVE PINS.
3. PROVIDE ACCESS DOORS ON AIR HANDLING UNITS AND DUCTWORK INSTALLED IN EQUIPMENT ROOMS. PROVIDE ACCESS PANELS ON ALL EQUIPMENT AND DUCTWORK INSTALLED ABOVE FINISHED CEILINGS WHERE SPACE LIMITATIONS DO NOT ALLOW HINGED DOORS TO OPEN.

D5 / M201 **NON-GREASE DUCT ACCESS DOOR**

NTS

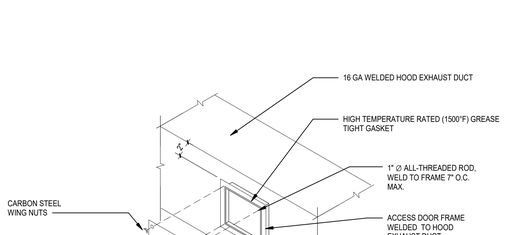


NOTE:

1. REFER TO SHEET M401 AND SPECIFICATIONS FOR DUCT INSULATION REQUIREMENTS.

C1 / M201 **SUPPLY AIR DIFFUSER DETAIL**

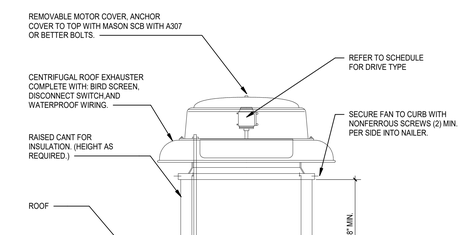
NTS



ACCESS DOOR SHALL BE SIMILAR TO KEES ODEL: KEDA-A (SIDE OR TOP OF DUCT) KEDA-B - OPTIONAL REFER TO A1/M202

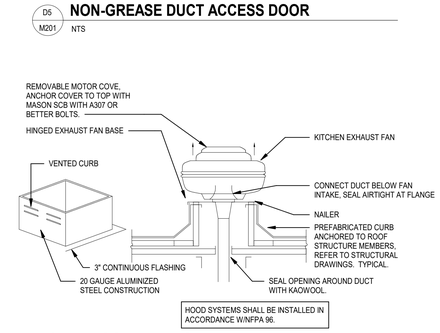
C2 / M201 **HOOD EXHAUST DUCT CLEANOUT**

NTS



C3 / M201 **CENTRIFUGAL ROOF EXHAUST**

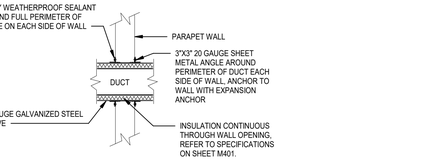
NTS



HOOD SYSTEMS SHALL BE INSTALLED IN ACCORDANCE W/NFPA 96.

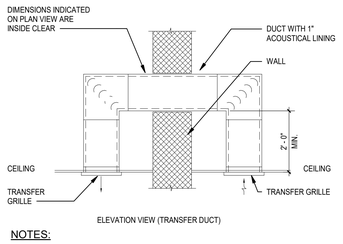
C4 / M201 **KITCHEN HOOD EXHAUST FAN**

NTS



B1 / M201 **DUCT PENETRATION DETAIL (INTERIOR)**

NTS

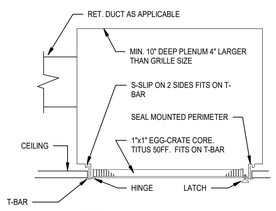


NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING AND HEIGHT.
2. REFER TO PLANS FOR TRANSFER GRILLE TYPE AND SIZE.

B2 / M201 **TRANSFER GRILL DETAIL**

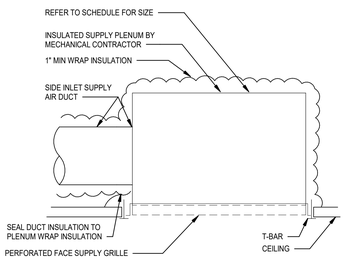
NTS



NOTE:
CONTRACTOR TO SHOW STORE PERSONNEL HOW TO REMOVE CORE FROM HINGED PANEL.

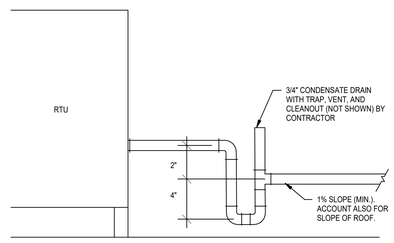
B3 / M201 **RETURN / EXHAUST GRILLE**

NTS



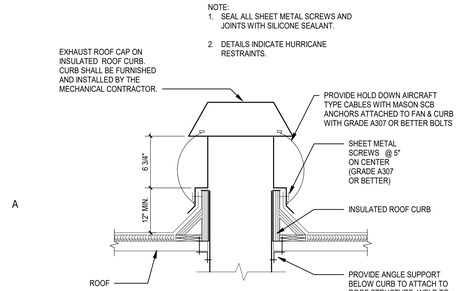
B4 / M201 **PERFORATED FACE SUPPLY GRILLE DETAIL**

NTS



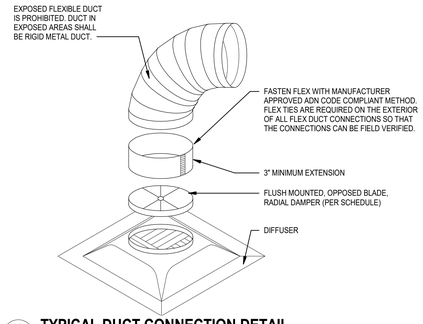
B5 / M201 **CONDENSATE DRAIN DETAIL**

NTS



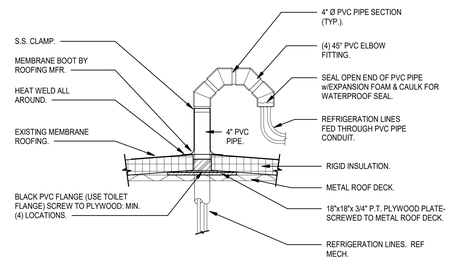
A1 / M201 **EXHAUST CAP DETAIL W/ HURRICANE RESTRAINT**

NTS



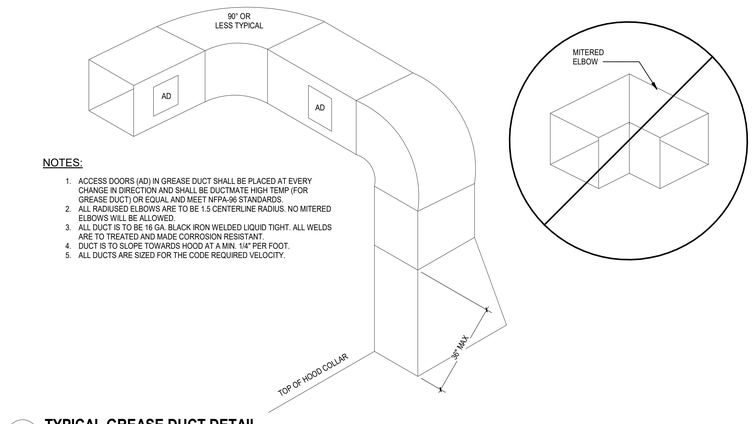
A2 / M201 **TYPICAL DUCT CONNECTION DETAIL**

NTS



A3 / M201 **TYPICAL REFRIGERANT PIPE ROOF DETAIL**

NTS



NOTES:

1. ACCESS DOORS (AD) IN GREASE DUCT SHALL BE PLACED AT EVERY CHANGE IN DIRECTION AND SHALL BE DUCTMATE HIGH TEMP (FOR GREASE DUCT) OR EQUAL AND MEET NFPA-96 STANDARDS.
2. ALL RADIUSED ELBOWS ARE TO BE 1.5 CENTERLINE RADIUS. NO MITERED ELBOWS WILL BE ALLOWED.
3. ALL DUCT IS TO BE 16 GA. BLACK IRON WELDED LIQUID TIGHT. ALL WELDS ARE TO TREATED AND MADE CORROSION RESISTANT.
4. DUCT IS TO SLOPE TOWARDS HOOD AT A MIN. 1/4" PER FOOT.
5. ALL DUCTS ARE SIZED FOR THE CODE REQUIRED VELOCITY.

A4 / M201 **TYPICAL GREASE DUCT DETAIL**

NTS

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SEAL

BLOOMIN' BRANDS

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JOEY PROTOTYPE (2022.2 RELEASE)
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LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES

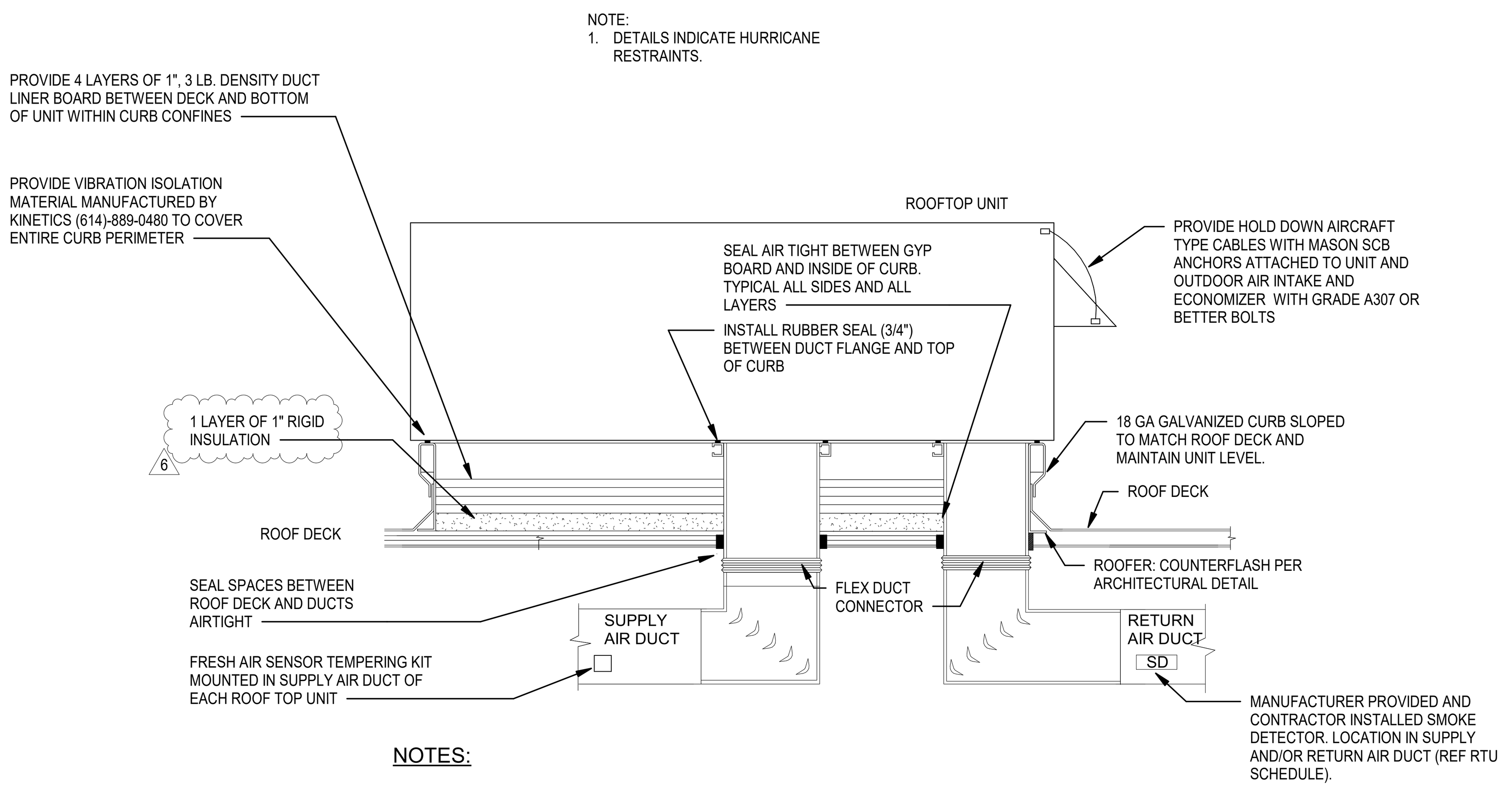
PRINCIPAL IN CHARGE:	RO
PROJECT ARCHITECT:	MS
DRAWN BY:	DJ

SHEET TITLE:

MECHANICAL DETAILS

SHEET NO. M201

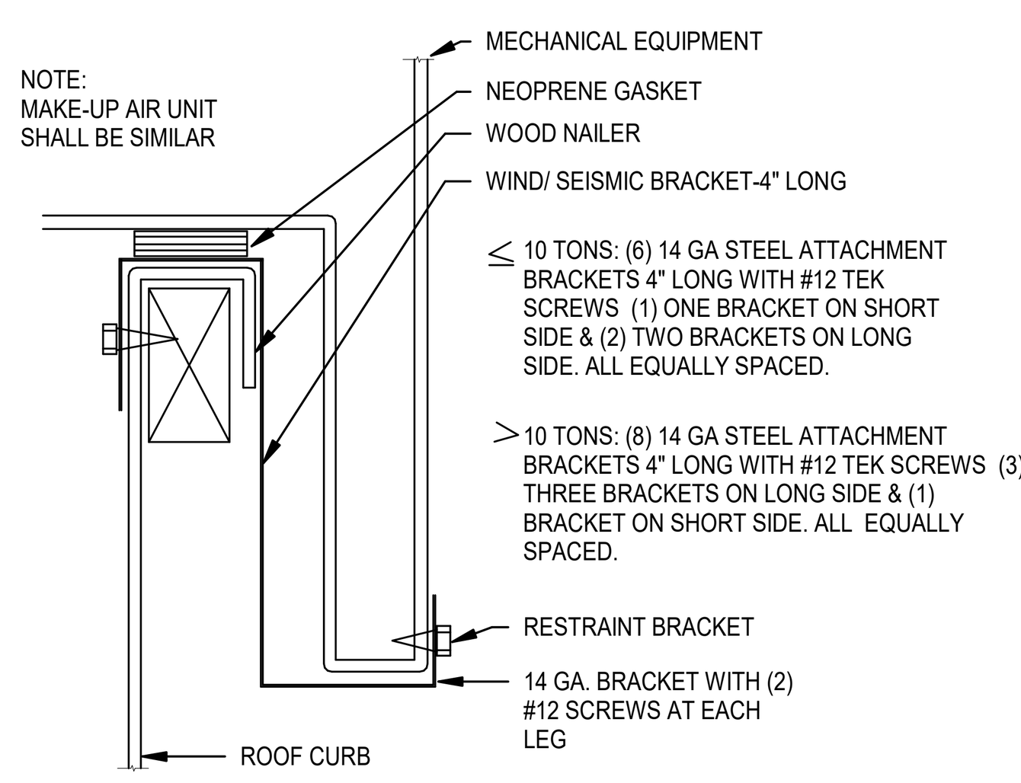
PROJ. NO. 2023231.05



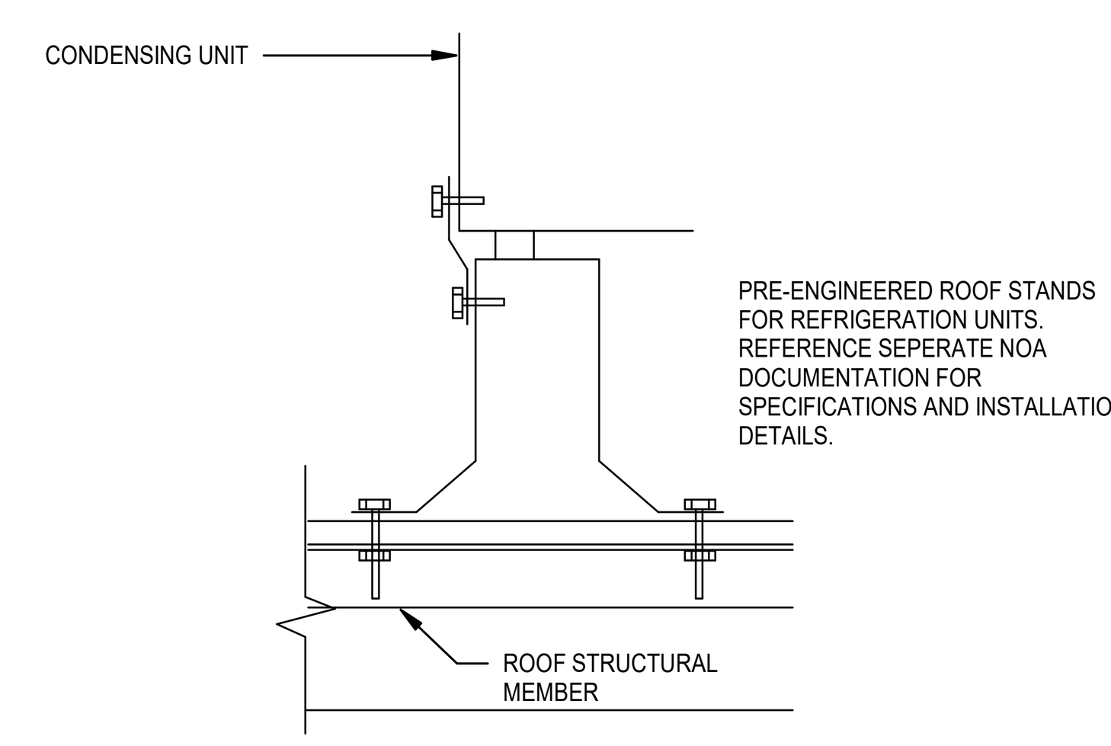
NOTES:

1. PROVIDE AUTOMATIC SHUTOFF SMOKE DETECTORS IN ROOF TOP UNITS, REFER TO FLOOR PLAN AND RTU SCHEDULE FOR ADDITIONAL DETAILS.
2. REFER TO M401 FOR DUCTWORK NOTES AND SPECIFICATIONS.

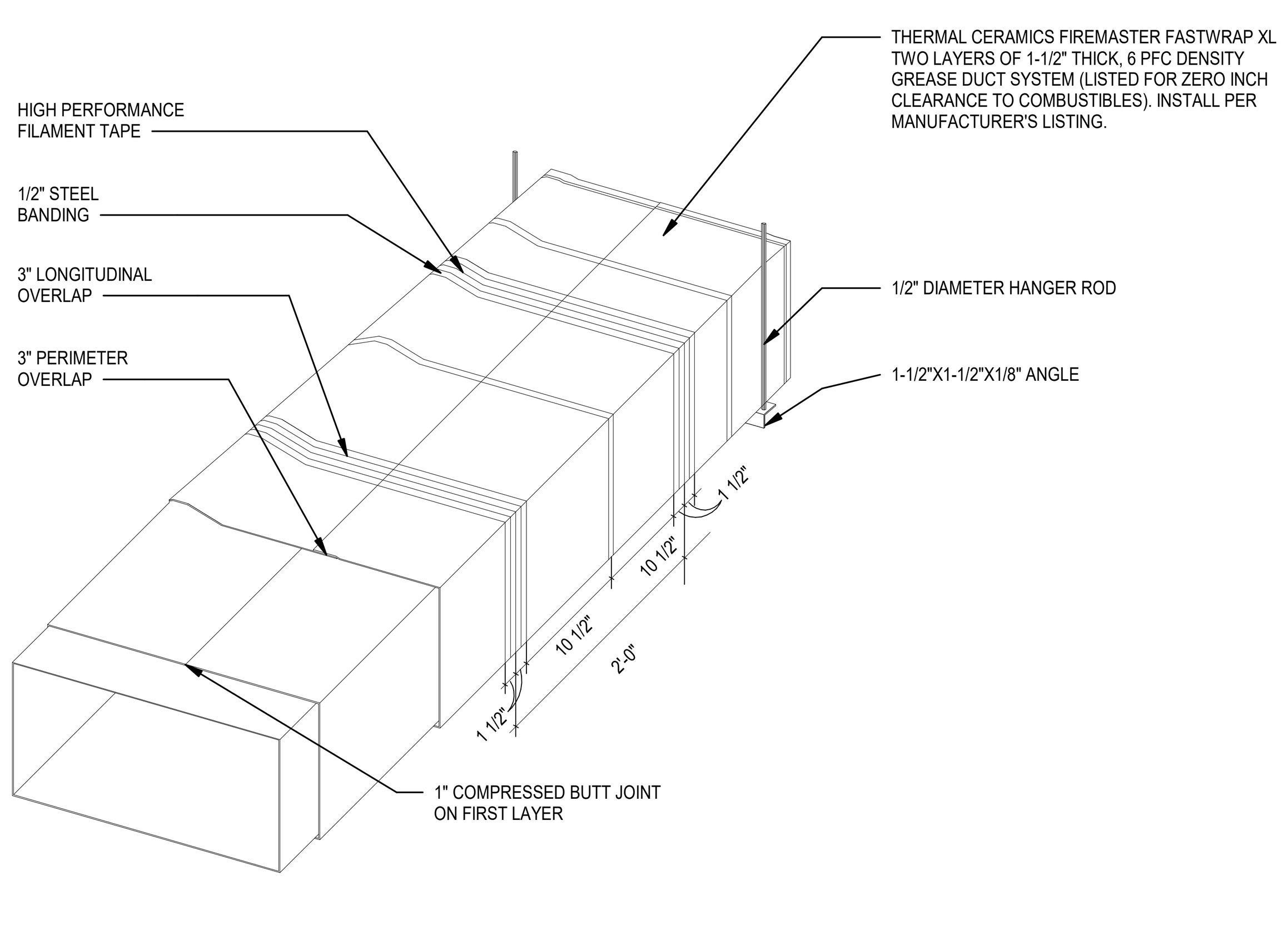
B1 M202 **ROOFTOP UNIT DETAIL**
NTS

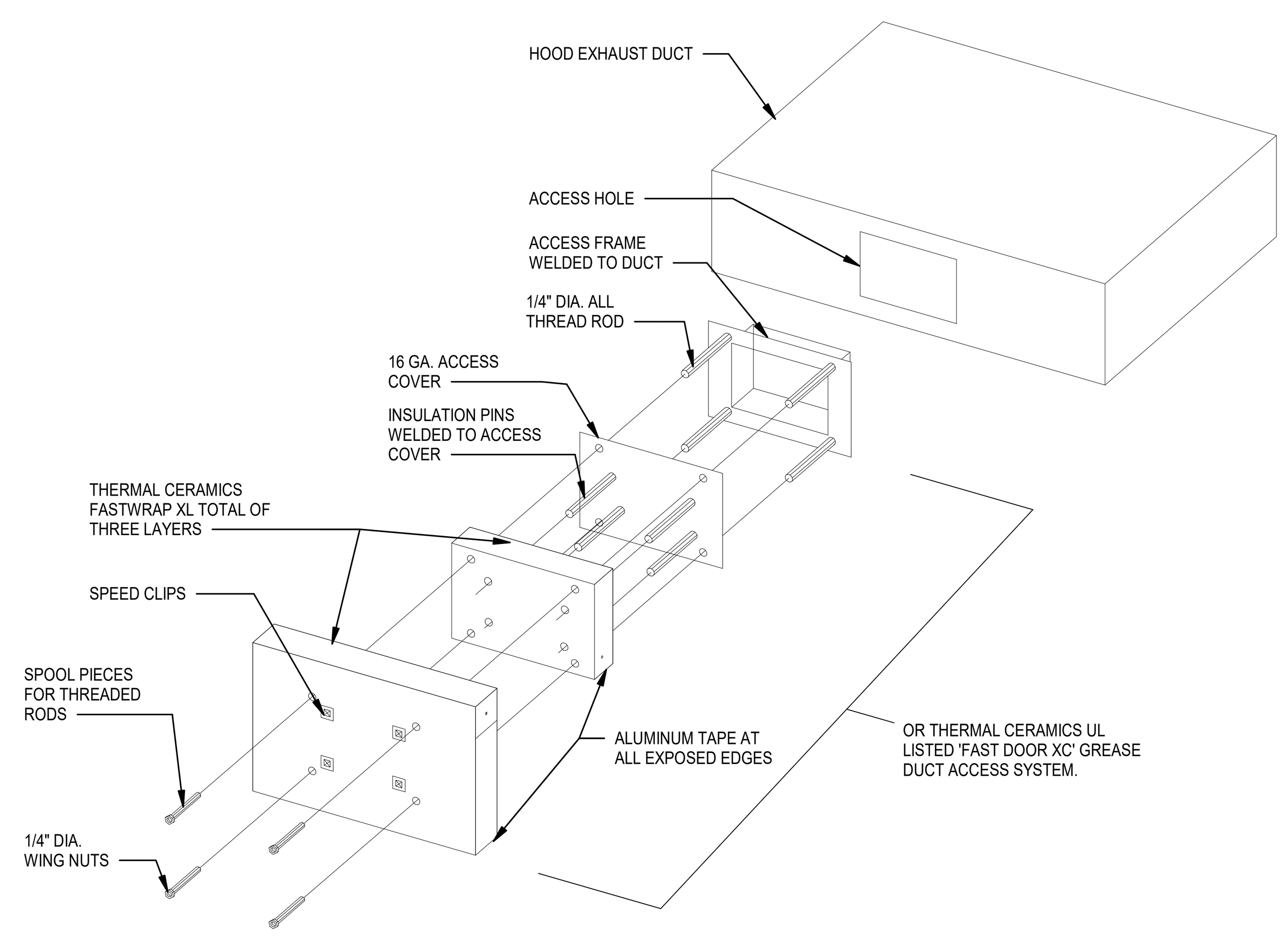


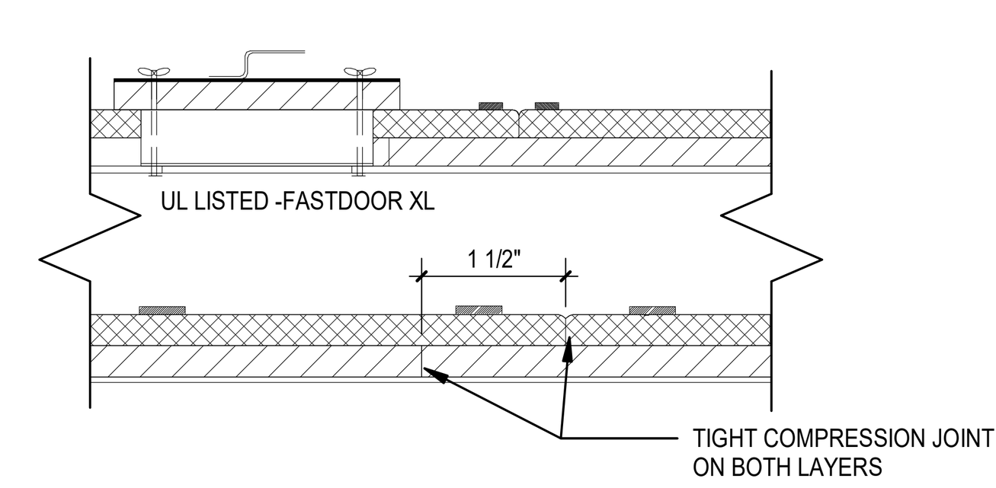
B2 M202 **ROOF MOUNT EQUIPMENT DETAIL**
NTS



B3 M202 **REFRIGERATION MOUNTING DETAIL**
NTS







LISTED USES			
GREASE DUCT ENCLOSURE PER ASTM E2336 AND AC101(2006, 2009, 2012 IMC, NFPA 96, UMC, CMC)	AGENCY UL ICC-ES	LISTING G18 ESP 2213	LAYERS 2

A1 M202 **GREASE DUCT WRAP DETAIL**
NTS

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PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
MECHANICAL DETAILS

SHEET NO. M202
PROJ. NO. 2023231.05

FAN SCHEDULE

MARK	EF-1	EF-2	EF-3	EF-4	EF-5	MUA-1
CFM	2205	2125	1480	1050	450	4880
S.P.	REFER TO HOOD DRAWINGS SHEETS H101 THROUGH H106	REFER TO HOOD DRAWINGS SHEETS H101 THROUGH H106	REFER TO HOOD DRAWINGS SHEETS H101 THROUGH H106	REFER TO HOOD DRAWINGS SHEETS H101 THROUGH H106	REFER TO HOOD DRAWINGS SHEETS H101 THROUGH H106	REFER TO HOOD DRAWINGS SHEETS H101 THROUGH H106
MANUFACTURER						
MODEL NO.						
RPM						
H.P.						
VOLTS/PHASE/HZ.						
ACCESSORIES: BD DAMPER						
ACCESSORIES: BIRD SCREEN						
ACCESSORIES: DISCONNECT						
ACCESSORIES: BELT DRIVE						
ACCESSORIES: DIRECT DRIVE						
ACCESSORIES: OTHER						
CURB MODEL/SIZE						
ROOF OPENING SIZE						
FURNISHED BY:	HOOD SUPPLIER	HOOD SUPPLIER	HOOD SUPPLIER	HOOD SUPPLIER	HOOD SUPPLIER	HOOD SUPPLIER
INSTALLED BY:	MC	MC	MC	MC	MC	MC
NOTES (REFER TO BELOW)	HOOD #1	HOOD #2	HOOD #3	HOOD #4	PUBLIC RESTROOMS	

AIR DEVICE SCHEDULE

MARK	Size	TYPE: DIFFUSER	TYPE: REGISTER	TYPE: GRILL	CFM	MTG: T-BAR	MTG: SURFACE	MTG: DUCT	THROW	DUTY: SUPPLY	DUTY: RETURN	DUTY: EXHAUST	FT. THROW AT 150 FPM	PRICE MODEL NO.	MAX NC	NOTES
A	12"x12"	X			50-250		X		4-WAY	X			5	ASCDA	18	1,3,5,7,9
B	12"x12"	X			50-250	X			4-WAY	X			5	ASCDA	18	1,3,5,7,9
C	24"x24"	X			200-400	X			4-WAY	X			5	ASCDA	18	1,4,5,10
D	10"x6"	X			0-200			X	DOUBLE DEFLECTION	X			5	620D	24	1,2,3,5
E	10"x6"		X		0-200		X		FIXED		X		NA	635	24	1,5
F	10"x10"			X	75-200		X		EGG CRATE GRILLE		X		NA	80	19	1,4,5,6,8,9
G	42"x20"			X	2200			X	PERF		X		NA	80FF	17	1,3,5,6,8,11
H	10"x10"			X	75-200		X		EGG CRATE GRILLE			X	NA	80	19	1,2,3,5,6,9

1. ALUMINUM CONSTRUCTION.
2. FURNISH W/OPPOSED BLADE DAMPER (WHEN ABOVE NON-ACCESSABLE CEIING) AND NO BRANCH VOLUME DAMPER IS INDICATED.
3. CEILING MOUNTED OR DUCT MOUNTED.
4. LAY-IN CEILING MOUNTED.
5. WHITE FINISH (IN KITCHEN), SATIN BLACK (AT AREAS WITH BLACK ACT), ALL OTHERS SHALL BE PAINTED TO MATCH CEILING.
6. 1"X1"X1" EGGCRATE GRILLE.
7. SQUARE TO ROUND ADAPTOR
8. 45 DEG. DEFLECTION.
9. 12"X12" MODULE.
10. 24"X24" MODULE.
11. 48"X24" MODULE.

*REF SHEET M101 FOR DIFFUSER MOUNTING TYPE. SEE NOTE #3 & #4 THIS SCHEDULE.

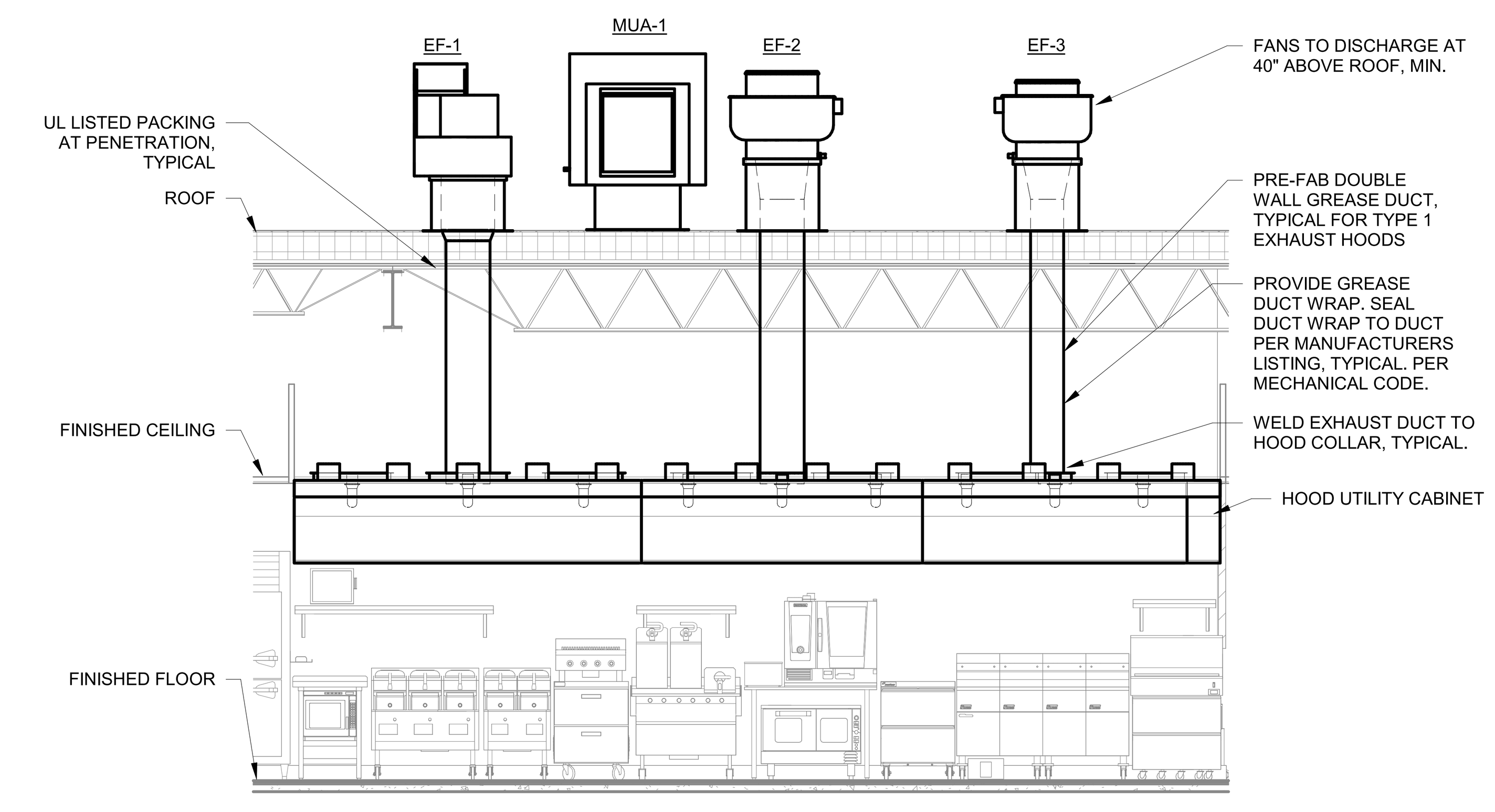
OTHER ACCEPTABLE MANUFACTURERS SHALL BE CARNS, METAL AIR, NAILOR, TUTTLE & BAILEY OR TITUS.

A / # — DIFFUSER TAG / AIR FLOW (CFM)

UNIT HEATER SCHEDULE

MARK	MAKE	MODEL	ELECTRIC	AMPS	HTG. CAP./CFM	kW	REMARKS
UH-1	MARKEL	MUH-05-81	208/3/60	13.8	17.1MBH/350	5	(1) (2)

1. PROVIDE WITH THERMOSTAT AND MOUTING BACKETS.
2. MOUNT MAXIMUM 8'-0" ABOVE FINISH FLOOR.



2 / M301 **ELEVATION AT MAIN HOOD LINE**
1/4" = 1'-0"

MINIMUM DUCT SEAL LEVEL [a]

DUCT LOCATION	SUPPLY ≤ 2 IN W.C (500 PA) [b]	SUPPLY ≥ 2 IN W.C (500 PA) [b]	EXH	RETURN
OUTDOORS [c]	A	A	C	A
UNCONDITIONED SPACES	B	A	C	B
CONDITIONED SPACES	C	B	B	C

a. REFER TO SEAL CLASS TABLE BELOW.
b. DUCT DESIGN STATIC PRESSURE CLASSIFICATION.
c. INCLUDES INDIRECTLY CONDITIONED SPACES, SUCH AS RETURN AIR PLENUMS.

DUCT SEAL CLASSES

DUCT SEAL CLASS	SEALING REQUIREMENTS [a]
A	ALL TRAVERSE JOINTS, LONGITUDINAL SEAMS, & DUCT WALL PENETRATIONS. PRESSURE SENSITIVE TAPE SHALL NOT BE USED AS THE PRIMARY SEALANT.
B	ALL TRAVERSE JOINTS, LONGITUDINAL SEAMS. PRESSURE SENSITIVE TAPE SHALL NOT BE USED AS THE PRIMARY SEALANT.
C	TRANSVERSE JOINTS ONLY.

a. LONGITUDINAL SEAMS ARE JOINTS ORIENTED IN THE DIRECTION OF AIRFLOW. TRANSVERSE JOINTS ARE CONNECTIONS OF TWO DUCT SECTIONS & ARE ORIENTED PERPENDICULAR TO AIRFLOW. DUCT WALL PENETRATIONS ARE OPENINGS MADE BY ANY SCREW FASTENER, PIPE, ROD OR WIRE. SPIRAL LOCK SEAMS IN ROUND & FLAT OVAL DUCTS NEED NOT BE SEALED. ALL OTHER CONNECTIONS ARE CONSIDERED TRANSVERSE JOINTS, INCLUDING BUT NOT LIMITED TO SPIN-INS, TAPS & OTHER V BRANCH CONNECTIONS, ACCESS DOOR FRAMES AND JAMBS, AND DUCT CONNECTIONS TO EQUIPMENT.

PACKAGE ROOFTOP UNIT SCHEDULE

UNIT DESIGNATION	RTU-1 (BAR & BAR DINING)	RTU-2 (WAITING & DINING)	RTU-3 (KITCHEN)
MANUFACTURER/MODEL #	TRANE YSK150A3S0H	TRANE YSK150A3S0H	TRANE YSK150A3S0H
RATED COOLING (BTU/TONS) / TONS	146,900 TC/106,960 SC / 12.5	146,900 TC/106,960 SC / 12.5	146,900 TC/106,960 SC / 12.5
COOLING STAGES (CHECK ONE)	☐ 1 ☐ 2 ☒ 3 ☐ 4	☐ 1 ☐ 2 ☒ 3 ☐ 4	☐ 1 ☐ 2 ☒ 3 ☐ 4
NOMINAL SUPPLY CFM/ HP BLOWER MOTOR	4,400 CFM/ 4.6 HP	4,400 CFM/ 4.6 HP	4,400 CFM/ 4.6 HP
OA MIN/ ESP	1,050 CFM/ 1.0	1,050 CFM/ 1.0	1025 CFM/ 1.0
CONDENSER E.A.T (d.b.)	95°F db	95°F db	95°F db
EVAPORATOR E.A.T. (d.b./w.b.)	80°F db/ 67°F wb	80°F db/ 67°F wb	80°F db/ 67°F wb
COOLING EFFICIENCY (E.E.R./IEER)	10.8	10.8	10.8
HEATING (INPUT/OUTPUT MBH)	240/175 IN/ 202.5/141.8 OUT	240/175 IN/ 202.5/141.8 OUT	240/175 IN/ 202.5/141.8 OUT
AFUE %	80	80	80
HEATER WARRANTY	10 YEAR MIN.	10 YEAR MIN.	10 YEAR MIN.
UNIT ELEC. V/P/MCA/MOCP	208V/3P/73/100	208V/3P/73/100	208V/3P/73/100
TOTAL UNIT WEIGHT (AS SPECIFIED)	1600 LBS	1600 LBS	1600 LBS
STANDARD EQUIPMENT, OPTIONS AND ACCESSORIES	1 THRU 11	1 THRU 11	1 THRU 4, 6 THRU 11

STANDARD EQUIPMENT, OPTIONS AND ACCESSORIES*

1. FULL PERIMETER ROOF CURB, PER MANUFACTURERS RECOMMENDATIONS
2. OUTSIDE AIR INTAKE COVER
3. DUCT FLANGE
4. ECONOMIZER W/ENTHALPY CONTROL & POWERED EXHAUST
5. HUMIDITROL OPTION W/ CONTROLS (HOT GAS REHEAT LIMITED TO 50%)
6. SUPPLY AIR DUCT DETECTOR FOR UNIT SHUT DOWN, PER AHJ.
7. FACTORY INSTALLED DISCONNECT SWITCH
8. FRESH AIR TEMPERING KIT (ENABLE DEVICE & INSTALL SENSOR)
9. FACTORY INSTALLED 115VOLT GFI RECEPTACLE (FIELD WIRED)
10. PROVIDE ROOFTOP UNIT WITH A CONDENSATE DRAIN PAIN FLOAT SWITCH THAT WILL SHUT DOWN PRIOR TO CONDENSATE DRAIN PAN OVERFLOW. SHALL SEND A SIGNAL TO THERMOSTAT FOR SERVICE.
11. HAIL GUARD.

*ACCESSORIES MAY VARY, CONTACT TRANE NATIONAL ACCOUNTS LISTED FOR ITEMS FURNISHED.

ENVIRONMENTAL CONDITIONING UNIT SCHEDULE

TAG	MANUFACTURER	MODEL NUMBER	COOLING CAPACITY MAX-MIN (MBH)	HEATING CAPACITY MAX-MIN (MBH)	CFM	INDOOR ELEC VOLT/PHASE	INDOOR ELEC FLA	OUTDOOR ELEC VOLT/PHASE	OUTDOOR ELEC MCA/MOCP	LIQUID	SUCTION	WEIGHT INDOOR/OUTDOOR	REMARKS
ECU-1/CU-1	MITSUBISHI	PLA-A36/PUZ-A36	36-16	42-18	980	208/1	1	208/1	25/30	3/8"	5/8"	56/214	1-4

NOTES:
1. PROVIDE THE FOLLOWING ACCESSORIES: WIRED CONTROLLER, INTEGRAL CONDENSATE PUMP, LOW AMBIENT KIT, 24" TALL EQUIPMENT STAND.
2. COOLING CAPACITY SCHEDULED INCLUDES EFFECTS OF FAN MOTOR HEAT.
3. REFRIGERANT PIPING SIZES AND ROUTES TO BE REVIEWED WITH MANUFACTURER PRIOR TO INSTALLATION.
4. HEATING CAPACITY BASED ON 47 DEG. F AMBIENT CONDITIONS.

DUCT HANGER DETAILS

MINIMUM HANGER SIZE FOR RECTANGULAR DUCT

MAXIMUM HALF OF DUCT PERIMETER	PAIR @ 10 FT. SPACING: STRAP	PAIR @ 10 FT. SPACING: WIRE/ ROD	PAIR @ 8 FT. SPACING: STRAP	PAIR @ 8 FT. SPACING: WIRE/ ROD
P/2 = 30"	1"x22 GA.	10 GA. (.135")	1"x22 GA.	10 GA. (.135")
P/2 = 72"	1"x18 GA.	3/8"	1"x20 GA.	1/4"
P/2 = 96"	1"x16 GA.	3/8"	1"x18 GA.	3/8"
P/2 = 120"	1-1/2"x16 GA.	1/2"	1"x16 GA.	3/8"

MINIMUM HANGER SIZE FOR ROUND DUCT

DIA.	MAX. SPACING	WIRE DIA.	ROD	STRAP
10" DN	12'	ONE 12 GA.	1/4"	1"x22 GA.
11"-18"	12'	TWO 12 GA. OR 1 8 GA.	1/4"	1"x22 GA.
19"-24"	12'	TWO 10 GA.	1/4"	1"x22 GA.
25"-36"	12'	TWO 8 GA.	3/8"	1"x20 GA.
37"-50"	12'	→	TWO 3/8"	TWO 1"x20 GA.
51"-60"	12'	→	TWO 3/8"	TWO 1"x18 GA.
61"-84"	12'	→	TWO 3/8"	TWO 1"x16 GA.

NOTES:
1. DIMENSIONS OTHER THAN GAUGE ARE IN INCHES.
2. TABLES ALLOW FOR DUCT WEIGHT, 1 LB./ SF INSULATION WEIGHT & NORMAL REINFORCEMENT & TRAPEZE WEIGHT, BUT NO EXTERNAL LOADS.
3. STRAPS ARE GALVANIZED STEEL.
4. ALLOWABLE LOADS FOR P/2 ASSUME THAT DUCTS ARE 16 GA. MAXIMUM, EXCEPT THAT WHEN MAXIMUM DUCT DIMENSION (W) IS OVER 60" THEN P/2 MAXIMUM IS 1.25 W.
5. 12, 10 OR 8 GA. WIRE IS STEEL OR BLACK ANNEALED, BRIGHT BASIC OR GALVANIZED TYPE.

NOTES:
1. STRAPS ARE GALVANIZED STEEL; RODS ARE UNCOATED OR GALVANIZED STEEL; WIRE IS BLACK ANNEALED, BRIGHT BASIC OR GALVANIZED STEEL. ALL OTHERS ARE ALTERNATIVES.
2. TABLE ALLOWS FOR CONVENTIONAL WALL THICKNESS & JOINT SYSTEMS PLUS ONE LB/SF OF INSULATION WEIGHT. IF HEAVIER DUCTS ARE TO BE INSTALLED, ADJUST HANGER SIZES TO BE WITHIN THEIR LOAD LIMITS.

AIR BALANCE SCHEDULE

Mark	RETURN AIR FLOW	OUTSIDE AIR FLOW	SUPPLY AIR FLOW	EXHAUST AIR FLOW	NET AIRFLOW
EF-1	0 CFM	0 CFM	0 CFM	1,480 CFM	-1480 CFM
EF-2	0 CFM	0 CFM	0 CFM	1,700 CFM	-1700 CFM
EF-3	0 CFM	0 CFM	0 CFM	2,205 CFM	-2205 CFM
EF-4	0 CFM	0 CFM	0 CFM	1,050 CFM	-1050 CFM
EF-5	0 CFM	0 CFM	0 CFM	450 CFM	-450 CFM
MUA-1	0 CFM	4880 CFM	0 CFM	0 CFM	4880 CFM
RTU-1	3350 CFM	1050 CFM	4,400 CFM	0 CFM	1050 CFM
RTU-2	3350 CFM	1050 CFM	4,400 CFM	0 CFM	1050 CFM
RTU-3	3375 CFM	1025 CFM	4,400 CFM	0 CFM	1025 CFM
TOTAL	10075 CFM	8005 CFM	13,200 CFM	6,885 CFM	1120 CFM

OUTDOOR AIR CALCULATION

Space	Area	Occupants	Calculation	CFM
BAR	180 NET SF / 1000	x 100 = 18 PEOPLE	18 x 7.5/ 0.8 =	169 CFM
			180 x .18/ 0.8 =	41 CFM
BAR DINING	840 SF / 1000	x 70 = 59 PEOPLE	58 x 7.5/ 0.8 =	554 CFM
			840 x .18/ 0.8 =	189 CFM
VESTIBULE	50 SF		50 x .06/ 0.8 =	4 CFM
WAITING	165 SF / 1000	x 30 = 5 PEOPLE	5 x 7.5/ 0.8 =	47 CFM
			165 x .06/ 0.8 =	12 CFM
DINING	1260 SF / 1000	x 70 = 88 PEOPLE	88 x 7.5/ 0.8 =	825 CFM
			1260 x .18/ 0.8 =	284 CFM
WALKWAY	60 SF		60 x .06/ 0.8 =	5 CFM
CARRY-OUT	108 SF		108 x .06/ 0.8 =	8 CFM
			TOTAL OA REQUIRED =	2138 CFM
			TOTAL OA PROVIDED THRU RTU-1,2 =	2140 CFM
KITCHEN	1158 NET SF		1158 x 0.7/ 0.8 =	1014 CFM
OFFICE	55 SF / 1000	x 5 = 1 PERSON	1 x 5/ 0.8 =	6 CFM
			55 x .06/ 0.8 =	4 CFM
			TOTAL OA REQUIRED =	1024 CFM
			TOTAL OA PROVIDED THRU RTU-3 =	1025 CFM

OUTDOOR AIR VENTILATION FORMULA:

BREATHING ZONE AREA (Az) X OCCUPANT DENSITY / 1000 SF = OCCUPANTS
OCCUPANTS X PEOPLE OUTDOOR AIR RATE CFM/PERSON (Rp) = CFM
CFM / ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez) = CFM (1)

BREATHING ZONE AREA (Az) X AREA OUTDOOR AIR RATE (Ra) = CFM
CFM / ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez) = CFM (2)
(1) + (2) = TOTAL CFM REQUIRED FOR THAT ZONE

KITCHEN OUTDOOR AIR: BREATHING ZONE AREA (Az) X 0.7 CFM PER SQ. FT = CFM
CFM / ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez) = TOTAL CFM REQUIRED

OUTBACK STEAKHOUSE®

GPD GROUP, INC.
LIC. # - 30920
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2101

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01/31/25

BLOOMIN' BRANDS
OUTBACK STEAKHOUSE
JOEY PROTOTYPE (2022.2 RELEASE)
STORE #2045
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES
4	09/27/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
MECHANICAL SCHEDULES

SHEET NO. M301
PROJ. NO. 2023231.05

TRANE NATIONAL ACCOUNTS EQUIPMENT PACKAGE

BLOOMIN BRANDS (OWNER) HAS A NATIONAL ACCOUNT AGREEMENT WITH TRANE FOR BUNDLED SOLUTIONS. THE ROOFTOP UNITS, VAV, VFDs, FANS and SPLIT SYSTEMS ARE AN *OWNER FURNISHED* ITEM, ASSIGNED TO THE INSTALLING CONTRACTOR. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR RECEIVING AND STORING EQUIPMENT, PROPER INSTALLATION, STARTUP AND ONE YEAR PARTS & LABOR WARRANTY.

FOR COMPLETE INFORMATION ON THE FOLLOWING PACKAGE OF EQUIPMENT CONTACT TRANE NATIONAL ACCOUNTS BLOOMIN@TRANE.COM

ANY CHANGES OR VARIATIONS TO THE ORIGINAL EQUIPMENT PACKAGE DESCRIBED BELOW THAT WOULD AFFECT THE HVAC EQUIPMENT PACKAGE SHOULD BE BROUGHT TO THE ATTENTION OF THE ACCOUNT COORDINATOR AT TRANE NATIONAL ACCOUNTS AT TIME OF QUOTATION.

HEATING AND COOLING EQUIPMENT PACKAGE:
INCLUDES ALL ROOFTOP AIR CONDITIONERS (INCLUDING CURBS), SPLIT SYSTEMS, etc. AS SPECIFIED ON THE PLANS.

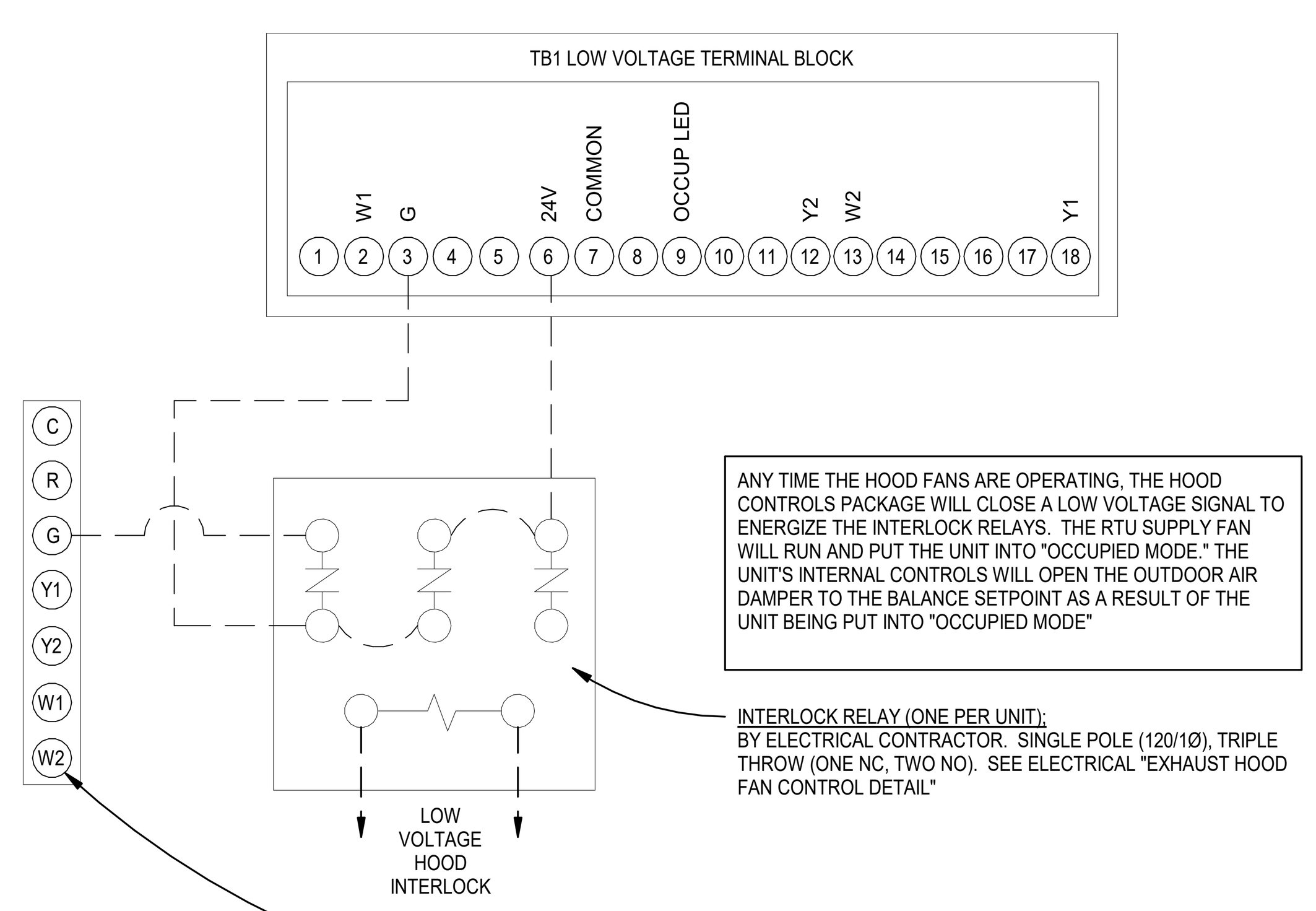
CONTROLS PACKAGE:
INCLUDES PROGRAMMABLE T-STATS (OR NOMAD CONTROLS).

NOTE: ORDERING PROCEDURES

TRANE NATIONAL ACCOUNTS DEPARTMENT BLOOMIN@TRANE.COM WILL ORDER EQUIPMENT AND COORDINATE SHIPMENT WITH THE SUCCESSFUL HVAC CONTRACTOR. THE HVAC CONTRACTOR WILL BE RESPONSIBLE FOR DELIVERY COORDINATION, RECEIVING, INSTALLATION AND COMPLETE 1st YEAR WARRANTY, AS DESCRIBED IN THE SPECIFICATIONS.

NOTE: EQUIPMENT START-UP INSTRUCTION

INSTALLING CONTRACTOR IS RESPONSIBLE FOR RUNNING THE UNITS & MAINTAINING THE AIR FILTERS DURING THE CONSTRUCTION PHASE. TWO WEEKS PRIOR TO THE BUILDING TRAINING (COORDINATED AROUND AIR BALANCE), THE CONTRACTOR WILL COORDINATE THE EQUIPMENT VERIFICATION / RUNNING INSPECTION WITH TRANE (1 - 2 DAY VISIT). THE CONTRACTOR MUST PROVIDE ONE TECHNICIAN TO WORK WITH TRANE. TRANE WILL PROVIDE AN OPERATIONAL VERIFICATION FOR EACH ROOFTOP UNIT. UPON COMPLETION, TRANE WILL PROVIDE A WRITTEN REPORT, CERTIFYING PROPER EQUIPMENT STARTUP TO BLOOMIN BRANDS.



CONFIGURATION NOTE:
CONSULT TRANE FOR ANY CHANGES TO RTU CONTROL CONFIGURATIONS.

ROOM THERMOSTAT
NOTE: NEITHER STANDARD HEATING / COOLING CONTROL WIRING NOR REMOTE SENSOR WIRING SHOWN FOR CLARITY.

A1 / M401 HVAC CONTROL WIRING DIAGRAM
Full Scale

HVAC CONTROLS

THERMOSTATS AND SENSORS

1. THERMOSTATS SHALL BE HONEYWELL 17381F OR TRANE COSTAT02AEIL, DIGITAL, 7-DAY PROGRAMMABLE WITH 4 MODES PER DAY AND AT LEAST THE SAME NUMBER OC CAPACITY STAGES AS THE RTU.
2. REMOTE SENSORS SHALL BE FLUSH-MOUNT OR "BUTTON" TYPE, WITH NO VISUAL DISPLAYS OR ADJUSTMENT KNOBS OF ANY KIND, AND SHALL BE MOUNTED 48"-60" AFF. COORDINATE EXACT HEIGHT WITH GENERAL CONTRACTOR.
3. THERMOSTATS SHALL BE LOCATED IN THE OFFICE AS SHOWN ON THE PLANS. REMOTE SENSORS LOCATED IN THE SPACES AS SHOWN ON THE PLAN.
4. PROVIDE DUCT MOUNTED HUMIDITY SENSORS FOR RTU-1 AND RTU-2. HUMIDITY SENSING SHALL BE USED FOR REFRIGERANT REHEAT CONTROL.
5. TEMPERATURE AND HUMIDITY SENSORS SHALL BE BY TRANE OR HONEYWELL.

RTU CONTROLS

6. THE FOLLOWING HIGHLIGHT SEVERAL KEY POINTS, WHICH ARE DEPICTED IN THE "HOOD INTERLOCK DIAGRAM" AND "CONTROL WIRING DIAGRAM"
   - WHEN THE HOODS ARE "ON", THE RTU FANS RUN CONTINUOUSLY.
   - WHEN THE HOODS ARE "ON", THE MOTORIZED OUTSIDE AIR DAMPER IS FORCED OPEN BY ENERGIZING THE "OCCUPIED" TERMINAL ON THE RTU. THE FACTORY WIRING WITHIN THE RTU, THEN OPENS THE DAMPER TO A POSITION SET BY THE TEST AND BALANCE CONTRACTOR.
   - WHEN THE HOODS ARE "OFF", THE THERMOSTAT CONTROLS THE FAN OPERATIONS.
   - AT ALL TIMES, THE THERMOSTAT CONTROLS THE STAGING OF THE COOLING AND HEATING, TO MEET THE SETPOINT.
   - THE ONLY USE FOR THE THERMOSTAT PROGRAMMING WILL BE TO ESTABLISH TEMPERATURE SETPOINTS FOR VARIOUS TIMES DURING THE DAY. IT IS VERY IMPORTANT TO NOTE THAT THE "OCCUPIED/UNOCCUPIED" STATUS OF THE THERMOSTAT WILL HAVE NO BEARING ON THE OUTSIDE AIR DAMPER POSITION, THE ONLY CONNECTION TO THE "OCCUPIED TERMINAL ON THE ROOFTOP SHALL BE AS SHOWN IN THE 'CONTROL WIRING DIAGRAM'.

HOOD AND FAN CONTROLS

7. THE HOOD MANUFACTURER SHALL PROVIDE A FACTORY-MOUNTED CONTROL SYSTEM FOR ENERGIZING THE HOOD EXHAUST FANS AND MAKEUP FAN.
   - THERE SHALL BE ONE CONTROL PANEL FOR THE HOODS.
   - FACTORY SWITCHES SHALL BE PROVIDED, ON THE FRONT OF THE HOOD.
   - THE HOOD SHALL ALSO HAVE FACTORY WIRED SENSORS IN THE EXHAUST COLLARS, THAT SHALL AUTOMATICALLY ENERGIZE THE FANS UPON THE SENSING OF HEAT FROM COOKING OPERATIONS.
8. THE HOOD CONTROL PANEL SHALL HAVE A LOW VOLTAGE DRY CONTACT TO INTERLOCK WITH THE BUILDING'S HVAC SYSTEM, AS SHOWN IN THE "HOOD INTERLOCK DIAGRAM" AND THE "CONTROL WIRING DIAGRAM". THE PURPOSE OF THIS INTERLOCK IS TO ENSURE POSITIVE BUILDING AIR BALANCE WHEN THE HOOD FANS ARE RUNNING.
9. GREASE EXHAUST FANS SHALL RUN WHENEVER THE CORRESPONDING HOOD FIRE EXTINGUISHING SYSTEM IS ACTIVATED. (THE FAN SHALL START IF THE HOOD IS NOT IN OPERATION, AND THE FAN SHALL CONTINUE TO RUN IF THE HOOD IS IN OPERATION). THE MAKE-UP AIR UNIT SHALL SHUT DOWN WHENEVER THE HOOD FIRE EXTINGUISHING SYSTEM IS ACTIVATED.

STAND ALONE CONTROLS

10. THE FOLLOWING CONTROLS ARE NOT PART OF HOOD CONTROL SYSTEM.
    - EF-4 SHALL BE INTERLOCKED WITH THE DISHWASHER.
    - EF-5 SHALL BE INTERLOCKED WITH THE LIGHTS IN THE RESTROOM.

SMOKE DETECTORS

11. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL DUCT-MOUNTED SMOKE DETECTORS, IN THE SUPPLY DUCT OF EACH RTU.
12. THE SMOKE DETECTORS SHALL BE COORDINATED WITH THE FIRE ALARM CONTRACTOR, TO ENSURE COMPATIBILITY.
13. IF A FIRE ALARM SYSTEM IS PROVIDED, ALL INTERCONNECTING WIRING BETWEEN THE SMOKE DETECTORS AND THE FIRE ALARM PANEL SHALL BE BY THE FIRE ALARM CONTRACTOR.

STARTERS AND DISCONNECTS

14. ALL RTU DISCONNECTS ARE FACTORY-INSTALLED.
15. ALL FAN DISCONNECTS ARE FACTORY-INSTALLED.
16. DISCONNECTS FOR ALL OTHER EQUIPMENT SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
17. STARTERS FOR THE HOOD EXHAUST AND MAKEUP UNIT, SHALL BE PROVIDED BY THE HOOD MANUFACTURER, AND LOCATED IN THE HOOD'S UTILITY CABINET.

MISCELLANEOUS

18. PROVIDE A LAMINATE PLACARD WITH THE EQUIPMENT TAG FOR EACH PIECE OF SCHEDULED EQUIPMENT AND FOR EACH THERMOSTAT (IN MANAGER'S OFFICE). ALTERNATELY, EQUIPMENT MAY BE STENCILED. EACH THERMOSTAT PLACARD SHALL ALSO INDICATE THE AREA OF THE BUILDING SERVED.
19. LOCATE A LAMINATED COPY OF THE "HOOD INTERLOCK DIAGRAM", THE "CONTROL WIRING DIAGRAM", & THE CONTROLS NOTES ON THE INSIDE OF THE CONTROLS ACCESS PANEL OF EACH RTU. DOCUMENT ALL AS BUILT MODIFICATIONS AND/OR SPECIFIC UNIT CONFIGURATION ONES AS NECESSARY.
20. LOW VOLTAGE (24V) CONTROL WIRING SHALL BE PROVIDED BY THE MECHANICAL SUBCONTRACTOR. WHERE REQUIRED, THE ELECTRICAL SUBCONTRACTOR SHALL PROVIDE CONDUIT FOR ALL CONTROL WIRING, AS COORDINATED WITH THE MECHANICAL SUBCONTRACTOR. ALL CONDUIT SHALL BE RUN SQUARE WITH BUILDING LINES.
21. LINE VOLTAGE (120V AND HIGHER) CONTROL AND POWER WIRING AND CONDUIT SHALL BE PROVIDED BY THE ELECTRICAL SUBCONTRACTOR.

GENERAL NOTES:

1. ALL RECTANGULAR, ROUND AND FLEXIBLE DUCTS SHALL BE SIZED AS SHOWN ON THESE DRAWINGS. MINIMUM INTERNAL DIMENSIONS ARE GIVEN.
2. ALL SUPPLY, RETURN AND OUTSIDE AIR DUCTS ARE SIZED FOR AIR VOLUME AND STATIC PRESSURE DROP WITHOUT INTERIOR INSULATION. SHOULD INTERIOR INSULATION BE USED, THE CONTRACTOR SHALL INCREASE THE DUCT SIZE ACCORDINGLY.
3. ALL SUPPLY, RETURN AND OUTSIDE AIR DUCTS SHALL BE INSULATED.
4. ALL FLEXIBLE DUCTS SHALL BE CONNECTED TO TRUNK OR BRANCH DUCTS WITH A MINIMUM OF THREE SHEET METAL SCREWS AT EACH CONNECTION AND TAPED TO PROVIDE AN AIR TIGHT SEAL.
5. INSTALL TURNING VANES IN ALL 90° DUCT ELBOWS AND AT ALL DUCT "TEES".
6. INSTALL ADJUSTABLE AIR VOLUME EXTRACTORS AT ALL BRANCH TO MAIN DUCT CONNECTIONS.
7. HOOD FIRE PROTECTION SYSTEMS SHALL BE BY A LICENSED FIRE PROTECTION CONTRACTOR (REFER TO KITCHEN HOOD GENERAL NOTES).
8. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED ACCORDING TO REFERENCED MECHANICAL CODE AND SMACNA STANDARDS. REFER TO THE MP GENERAL NOTES ON SHEET MP200.
9. MANUFACTURERS MINIMUM CLEARANCE RECOMMENDATIONS SHALL BE MAINTAINED ON ALL EQUIPMENT AND DUCTWORK.
10. THE CONTRACTOR SHALL CAREFULLY COORDINATE THE LOCATION OF ALL DUCTS, GRILLES, DIFFUSERS, ETC. WITH THE CEILING GRIDS AND THE PLUMBING AND FRAMING CONTRACTORS.
11. ALL KITCHEN RETURN AIR GRILLES SHALL BE EASILY REMOVABLE FOR CLEANING.
12. ALL CONTROL WIRING SHALL BE BY THE HVAC CONTRACTOR. CONTROL WIRING SHALL BE SHIELDED CABLE TO PREVENT ANY ELECTRICAL INTERFERENCE.
13. ALL POWER WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.
14. THE CONTRACTOR SHALL CAREFULLY COORDINATE ALL THERMOSTAT LOCATIONS WITH INTERIOR FINISHES.
15. THE CONTRACTOR SHALL COORDINATE FULLY WITH ALL OTHER TRADES.
16. THE CONTRACTOR SHALL SUPPLY FOR APPROVAL SIX (6) COPIES OF SHOP DRAWINGS TO COMPLETELY IDENTIFY THE QUALITY OF MATERIALS AND/OR EQUIPMENT INTENDED FOR INSTALLATION. THERE WILL BE NO DRAW UNTIL SHOP DRAWINGS HAVE BEEN SUBMITTED AND REVIEWED BY ARCHITECT/ENGINEER.
17. THE SUBMISSION OF A BID OR PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIM/HERSELF WITH THE PLANS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND/OR LABOR DUE TO DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED, UNLESS THESE DIFFICULTIES COULD NOT HAVE BEEN FORESEEN EVEN THOUGH PROPER EXAMINATION HAD BEEN MADE.
18. ALL ROUND TAKE-OFFS FROM RECTANGULAR DUCTS SHALL BE A DAMPERS EXPRESS COMMERCIAL AIR TITE SPIN IN MODEL ATCSI2 W/ DAMPER OR APPROVED EQUAL.
19. DEFINITIONS; "FURNISH" SHALL MEAN TO PURCHASE AND LOCATE AN ITEM ON THE JOBSITE. "INSTALL" SHALL MEAN TO PHYSICALLY INSTALL AN ITEM, AND TO CONNECT ALL REQUIRED SERVICES TO MAKE THAT ITEM FULLY FUNCTIONAL. "PROVIDE" SHALL MEAN TO BOTH FURNISH AND INSTALL ITEM.
20. PROVIDE ACCESS OPENINGS TO ALL FIRE DAMPERS. EACH ACCESS OPENING TO MAINTAIN FIRE DAMPERS SHALL BE IDENTIFIED WITH A LABEL OR SIGN. THE SIGN SHALL HAVE LETTERS (1/2) INCH HIGH READING FIRE DAMPER.
21. AIR DUCT SYSTEM SMOKE DETECTORS SHALL BE ACCESSIBLE FOR CLEANING AND SHALL BE MOUNTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ACCESS DOORS OR PANELS SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 90A,"STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS". THE LOCATION OF ALL DETECTORS IN AIR DUCT SYSTEMS SHALL BE PERMANENTLY AND CLEARLY IDENTIFIED AND RECORDED. DUCT MOUNTED SMOKE DETECTORS SHALL BE BY THE FIRE ALARM CONTRACTOR WHERE NOT FURNISHED WITH EQUIPMENT.
22. ALL EXHAUST DUCTWORK FOR THE HOOD SHALL BE PER MECHANICAL CODE. M.U.A. DUCT SHALL BE PER THE LATEST EDITION OF SMACNA WITH FOIL WRAP INSULATION. REFER TO THE MP GENERAL NOTES ON SHEET MP200.
23. ALL ROOF CURBS FOR FANS, ETC. SHALL BE A MINIMUM OF 12" HIGH. KITCHEN HOOD FAN CURBS MAY NEED TO BE HIGHER TO MAINTAIN CORRECT DISCHARGE HEIGHT OF FAN PER THE REFERENCED MECHANICAL CODE. REFER TO THE MP GENERAL NOTES ON SHEET MP200.
24. DISHWASHER EXHAUST DUCT SHALL BE WATERTIGHT, STAINLESS STEEL WITH WELDED SEAMS AND JOINTS.
25. SHEAVE & PULLEY COMBINATION FOR ALL R.T.U'S SHALL BE SIZED FOR DESIGN FAN R.P.M.
26. ALL KITCHEN HOOD EXHAUST DUCTWORK WELDS SHALL COMPLY WITH THE LATEST APPLICABLE AWS STANDARDS.
27. PROPERLY SECURE ALL FANS TO CURBS & DUCTWORK. PROVIDE NECESSARY GASKET ON CURBS TO PREVENT WATER PENETRATION.
28. PROVIDE PAINTED (3" H.) IDENTIFICATION ON ALL RTU'S, FANS & CONDENSING UNITS. IDENTIFICATION SHALL INCLUDE DEVICE NUMBER (I.E. RTU-1 OUTBACK STEAKHOUSE - DINING) AND AREA SERVED.
29. KITCHEN HOOD FIRE SUPPRESSION CONTRACTOR MUST SUBMIT PLANS AND OBTAIN PERMIT FROM FIRE MARSHALL. FIRE INSPECTOR TO WITNESS TEST PRIOR TO CERTIFICATE OF OCCUPANCY.
30. UNITS SHALL BE CLEANED, ALL SCRATCHES SHALL BE PAINTED OVER WITH FACTORY PAINT TO MATCH UNIT, ALL CONDENSER COILS SHALL BE COMBED OUT, AND ALL PANELS AND SCREWS SHALL BE REINSTALLED AT COMPLETION OF THE PROJECT.
31. EACH SUPPLY AIR OUTLET AND EXHAUST GRILLE SHALL BE EQUIPPED WITH A MEANS FOR AIR BALANCING IN ACCORDANCE WITH THE CODE INDICATED ON SHEET MP200.
32. HVAC TEST AND BALANCE REPORT SHALL BE PAID FOR BY OUTBACK WITH ACTUAL PROCEDURE COORDINATED BY THE MC AND GC THROUGH AIR SOLUTIONS AND BALANCING, CONTACT STEVE BUELTERMAN AT (603) 262-9292, EXT. 709 OR EMAIL AT steve.buelterman@usabalansing.com. ANY ADJUSTMENTS TO THE SYSTEM, AS DETERMINED BY THE REPORT, SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.

COMMISSIONING PLAN

PROVIDE A COMMISSIONING PLAN DEVELOPED BY AN APPROVED AGENCY PER IECC C408.2.1 TO INCLUDE THE FOLLOWING:

1. A NARRATIVE DESCRIPTION OF THE ACTIVITIES THAT WILL BE ACCOMPLISHED DURING EACH PHASE OF COMMISSIONING, INCLUDING THE PERSONNEL INTENDED TO ACCOMPLISH EACH OF THE ACTIVITIES.
2. A LISTING OF THE SPECIFIC EQUIPMENT, APPLIANCES OR SYSTEMS TO BE TESTED AND A DESCRIPTION OF THE TESTS TO BE PERFORMED.
3. FUNCTIONS TO BE TESTED, INCLUDING, BUT NOT LIMITED TO CALIBRATIONS AND ECONOMIZER CONTROLS.
4. CONDITIONS UNDER WHICH THE TEST WILL BE PERFORMED. AT A MINIMUM, TESTING SHALL AFFIRM WINTER AND SUMMER DESIGN CONDITIONS AND FULL OUTSIDE AIR CONDITIONS.
5. MEASURABLE CRITERIA FOR PERFORMANCE.

PRELIMINARY COMMISSIONING REPORT

A PRELIMINARY COMMISSIONING REPORT SHALL BE COMPLETED AND CERTIFIED BY AN APPROVED AGENCY PER IECC C408.2.4 AND SHALL INCLUDE THE FOLLOWING:

1. ITEMIZATION OF DEFICIENCIES FOUND DURING TESTING REQUIRED BY IECC SECTION C408 SYSTEM COMMISSIONING THAT HAVE NOT BEEN CORRECTED AT THE TIME OF REPORT PREPARATION.
2. DEFERRED TESTS THAT CANNOT BE PERFORMED AT THE TIME OF REPORT PREPARATION DUE TO CLIMATE CONDITIONS.
3. CLIMATE CONDITIONS REQUIRED FOR PERFORMANCE OF THE DEFERRED TESTS.

FINAL COMMISSIONING REPORT

A FINAL COMMISSIONING REPORT SHALL BE COMPLETED AND CERTIFIED BY AN APPROVED AGENCY PER IECC C408.2.5.4 WHICH SHALL BE DELIVERED TO THE OWNER AND SHALL INCLUDE THE FOLLOWING:

1. RESULTS OF FUNCTIONAL PERFORMANCE TESTS.
2. DISPOSITION OF DEFICIENCIES FOUND DURING TESTING, INCLUDING DETAILS OF CORRECTIVE MEASURES USED OR PROPOSED.
3. FUNCTIONAL PERFORMANCE TEST PROCEDURES USED DURING THE COMMISSIONING PROCESS INCLUDING MEASURABLE CRITERIA FOR TEST ACCEPTANCE, PROVIDED HEREIN FOR REPEATABILITY.

THE EXCEPTION WILL BE DEFERRED TESTS WHICH CANNOT BE PERFORMED AT THE TIME OF THE REPORT PREPARATION DUE TO CLIMATE CONDITIONS.

DUCTWORK NOTES

SHEET METAL WORK

1. EXCEPT AS OTHERWISE SHOWN OR NOTED, ALL SUPPLY AND RETURN AIR DUCTWORK AND OTHER SHEET METAL WORK SHALL BE G90 GALVANIZED SHEET STEEL AND SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC.). DUCT CONSTRUCTION STANDARDS.
2. ALL DUCTWORK SHALL BE SEALED TO COMPLY WITH THE LATEST EDITION OF THE REFERENCED ENERGY CONSERVATION AND MECHANICAL CODES, PRESSURE CLASSIFICATION 2 IN. W.G., SEAL CLASS B (REFER TO SMACNA FOR SEAL CLASS DETAILS). REFER TO THE MP GENERAL NOTES ON SHEET MP200.
3. DUCTWORK IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF DUCTWORK TO AVOID OBSTRUCTIONS. EXACT LOCATIONS ARE SUBJECT TO APPROVAL OF ARCHITECT. COORDINATION WITH OTHER TRADES IS REQUIRED.
4. ALL DUCT SIZES SHOWN ARE INSIDE, FREE AREA DIMENSIONS REQUIRED FOR PROPER AIRFLOW. UNLESS SPECIFICALLY INDICATED, ALL DUCT TRANSITIONS SHALL BE SMOOTH AND GRADUAL WITH MAXIMUM DIVERGENT ANGLE OF 15°.
5. ALL SHEET METAL DUCTWORK WITHIN 10' OF THE AIR HANDLING UNIT SHALL BE LINED WITH DUCT LINER. APPLY LINER IN ACCORDANCE WITH MANUFACTURER'S AND SMACNA RECOMMENDATIONS. ALL TRANSVERSE EDGES, OR ANY EDGES EXPOSED TO AIRFLOW SHALL BE COATED WITH AN APPROVED DUCT LINER COATING MATERIAL SUCH AS JOHNS MANVILLE SUPERSEAL PRODUCTS. JOINTS SHALL BE NEATLY BUTTED AND THERE SHALL BE NO INTERRUPTIONS OR GAPS.
6. EXPOSED DUCT AND FITTINGS SHALL BE PROVIDED WITH A MILL FINISH ("PAINT GRIP", "ZINC GRIP" OR SIMILAR ETCH TREATMENT) TO ALLOW THE DUCTWORK TO BE PAINTED.
7. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS OF SUPPLY DUCTWORK.
8. ALL FLEXIBLE DUCTWORK SHALL BE STRETCHED AND SUSPENDED IN ACCORDANCE WITH LOCAL CODE. SUPPORT EVERY 3' WITH 2" WIDE GALVANIZED STEEL BANDS (MAX. SAG ½" BETWEEN SUPPORTS). MAXIMUM LENGTH OF DUCT SHALL BE SIX (6) FEET.
9. ALL DUCTWORK SHALL BE INSTALLED AS HIGH AS POSSIBLE AND TIGHT TO STRUCTURE, UNLESS NOTED OTHERWISE.
10. SUPPORT ALL DUCTWORK FROM BUILDING STRUCTURE AND/OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OR SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING.
11. PROVIDE VOLUME DAMPER AT CONNECTION OF DIFFUSER BRANCH INCLUDING THOSE CONNECTING TO THE BOTTOM OF MAIN TRUNK.
12. NO FLEXIBLE DUCTWORK SHALL BE ALLOWED ABOVE INACCESSIBLE CEILINGS.

GREASE DUCT TESTING

PERFORM THE FOLLOWING TESTS PER THE REFERENCED MECHANICAL CODE(REFER TO THE MP GENERAL NOTES ON SHEET MP200):

GREASE DUCT TESTS - PRIOR TO THE USE OR CONCEALMENT OF ANY PORTION OF A GREASE DUCT SYSTEM, A LEAKAGE TEST SHALL BE PERFORMED. DUCTS SHALL BE CONSIDERED TO BE CONCEALED WHERE INSTALLED IN SHAFTS OR COVERED BY COATINGS OR WRAPS THAT PREVENT THE DUCTWORK FROM BEING VISUALLY INSPECTED ON ALL SIDES. THE PERMIT HOLDER SHALL BE RESPONSIBLE TO PROVIDE THE NECESSARY EQUIPMENT AND PERFORM THE GREASE DUCT LEAKAGE TEST. A LIGHT TEST SHALL BE PERFORMED TO DETERMINE THAT ALL WELDED AND BRAZED JOINTS ARE LIQUID TIGHT.

A LIGHT TEST SHALL BE PERFORMED BY PASSING A LAMP HAVING A POWER RATING OF NOT LESS THAN 100 WATTS THROUGH THE ENTIRE SECTION OF DUCTWORK TO BE TESTED. THE LAMP SHALL BE OPEN SO AS TO EMIT LIGHT EQUALLY IN ALL DIRECTIONS PERPENDICULAR TO THE DUCT WALLS. A TEST SHALL BE PERFORMED FOR THE ENTIRE DUCT SYSTEM, INCLUDING THE HOOD-TO-DUCT CONNECTION. THE DUCT WORK SHALL BE PERMITTED TO BE TESTED IN SECTIONS, PROVIDED THAT EVERY JOINT IS TESTED. FOR LISTED FACTORY-BUILT GREASE DUCTS, THIS TEST SHALL BE LIMITED TO DUCT JOINTS ASSEMBLED IN THE FIELD AND SHALL EXCLUDE FACTORY WELDS.

PERFORMANCE TEST - A PERFORMANCE TEST SHALL BE CONDUCTED UPON COMPLETION AND BEFORE FINAL APPROVAL OF THE INSTALLATION OF A VENTILATION SYSTEM SERVING COMMERCIAL COOKING APPLIANCES. THE TEST SHALL VERIFY THE RATE OF EXHAUST AIRFLOW REQUIRED BY SECTION 507, MAKEUP AIRFLOW REQUIRED BY SECTION 508 AND PROPER OPERATION AS SPECIFIED IN THIS CHAPTER. THE PERMIT HOLDER SHALL FURNISH THE NECESSARY TEST EQUIPMENT AND DEVICES REQUIRED TO PERFORM THE TESTS.

CAPTURE AND CONTAINMENT TEST - THE PERMIT HOLDER SHALL VERIFY CAPTURE AND CONTAINMENT PERFORMANCE OF THE EXHAUST SYSTEM. THIS FIELD TEST SHALL BE CONDUCTED WITH ALL APPLIANCES UNDER THE HOOD AT OPERATING TEMPERATURES, WITH ALL SOURCES OF OUTDOOR AIR PROVIDING MAKEUP AIR FOR THE HOOD OPERATING AND WITH ALL SOURCES OF RECIRCULATED AIR PROVIDING CONDITIONING FOR THE SPACE IN WHICH THE HOOD IS LOCATED OPERATING. CAPTURE AND CONTAINMENT SHALL BE VERIFIED VISUALLY BY OBSERVING SMOKE OR STEAM PRODUCED BY ACTUAL OR SIMULATED COOKING, SUCH AS WITH SMOKE CANDLES, SMOKE PUFFERS, ETC.

KITCHEN HOOD GENERAL NOTES

KITCHEN HOOD AND FIRE SUPPRESSION INFORMATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. KITCHEN EQUIPMENT SUPPLIER TO PROVIDE KITCHEN HOODS, FIRE SUPPRESSION SYSTEMS, KITCHEN HOOD EXHAUST AND SUPPLY FANS. GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING SUPPLIED KITCHEN EQUIPMENT. COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER.

ROOM SENSOR INSTALLATION:
A ROOM TEMPERATURE SENSOR IS PROVIDED WITH THE HOOD STARTER PANEL. INSTALL IN A SAFE LOCATION, FREE OF INFLUENCE FROM EXTERNAL HEAT SOURCES. LOCATION SHALL BE INDICATIVE OF THE AVERAGE KITCHEN TEMPERATURE AWAY FROM APPLIANCES. THIS SENSOR SHALL BE WIRED BACK TO THE HOOD STARTER PACKAGE AS SHOWN ON THE STARTER PACKAGE WIRING DIAGRAM IN THE HOOD DRAWINGS, WITH WIRE PROVIDED WITH THE STARTER PACKAGE.

DUCT SENSOR INSTALLATION:
ONE DUCT SENSOR IS FURNISHED PER HOOD EXHAUST RISER. THE SENSORS ARE SHIPPED FACTORY INSTALLED IN FACTORY ASSEMBLED HOOD RISERS. A 2-WIRE PLENUM RATED THERMISTOR CABLE (18 GAUGE TYPICAL), RUN IN CONDUIT, SHOULD BE USED TO WIRE THE SENSORS BACK THE CONTROLLER AND LANDED ON CONNECTOR J10 AS INDICATED ON THE INSTALLATION SCHEMATIC IN THE HOOD DRAWINGS. PLENUM WIRE IS TYPICALLY SUPPLIED WITH THE STARTER PACKAGE.

KITCHEN HOOD FIRE SUPPRESSION:
KITCHEN HOOD FIRE SUPPRESSION INSTALLATION PROVIDED BY GREASEMASTER. THE HOOD FIRE SUPPRESSION SHOP DRAWINGS SUBMIT THE HOOD FIRE SUPPRESSION SHOP DRAWINGS SHALL BE SUBMITTED TO AGENCY HAVING JURISDICTION FOR APPROVAL & PERMIT PRIOR TO INSTALLATION AS REQUIRED.

SYSTEM DESCRIPTION: PROVIDE A PRE-ENGINEERED, WET CHEMICAL, CARTRIDGE OPERATED TYPE FIRE SUPPRESSION SYSTEM. IT SHALL BE A FIXED NOZZLE AGENT DISTRIBUTION NETWORK, AND SHALL BE UL LISTED. (UL#300). THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND REMOTE ACTUATION. THE SYSTEM SHALL BE IN ACCORDANCE WITH NFPA 96 AND AUTHORITY HAVING JURISDICTION. DISCHARGE NOZZLES WILL PROVIDE COVERAGE OF, BUT NOT LIMITED TO, THE HOOD AREA & EXHAUST DUCT. FURNISH ELECTRIC OPERATED SHUT OFF VALVE.

COORDINATE GAS VALVE AND SHUNT TRIP INSTALLATION WITH PLUMBING AND ELECTRICAL DESIGN AND INSTALLATION.

MECHANICAL ABBREVATIONS

AFF	ABOVE FINISHED FLOOR	GC	GENERAL CONTRACTOR
AHJ	ATHORITY HAVING JURISDICTION	MC	MECHANICAL CONTRACTOR
CD	CONDENSATE DRAIN	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	MUA	MAKE-UP AIR
CLG	CEILING	NTS	NOT TO SCALE
CO	CARBON MONOXIDE	OA	OUTSIDE AIR
CO2	CARBON DIOXIDE	PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR	REF	REFERENCE
EF	EXHAUST FAN	RTU	ROOFTOP UNIT
G	GAS	SP	STATIC PRESSURE
GA	GUAGE	SS	STAINLESS STEEL
		TYP	TYPICAL

HVAC UNIT SPECIFICATIONS

UNITS FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR SHALL BE TRANE. ALL UNITS SHALL BE SINGLE PACKAGE TYPE, COMBINATION AIR TO AIR COOLING AND GAS HEATING. EACH UNIT SHALL BE MOUNTED ON A FULL PERIMETER ROOF CURB. FILTERS IN ALL HVAC UNITS SHALL BE 2" THICK THROWAWAY TYPE. UNITS SHALL BE INSTALLED ON MOUNTING CURB WITH ALL DUCTWORK PENETRATING INSIDE PERIMETER OF CURB. UNITS SHALL BE FURNISHED WITH INTEGRAL STARTERS.

SEQUENCE OF OPERATION

THE MECHANICAL CONTRACTOR SHALL FURNISH ALL REQUIRED COMPONENTS FOR THE FOLLOWING SEQUENCES OF OPERATION FOR EACH HVAC UNIT. DISCONNECTS SHALL BE FURNISHED AND INSTALLED BY THE UNIT MANUFACTURER.

A. UNIT SHALL BE STARTED AND STOPPED THROUGH ITS RESPECTIVE THERMOSTAT AND REMOTE TEMPERATURE/HUMIDITY SENSORS FOR RTU-1 & 2; THERMOSTAT & REMOTE TEMPERATURE SENSORS FOR RTU-3.

B. THERMOSTATS W/ REMOTE TEMPERATURE/ HUMIDITY SENSORS SHALL ENERGIZE COOLING, HEATING AND DEHUMIDIFICATION SYSTEMS TO MAINTAIN DESIRED SPACE TEMPERATURE AND HUMIDITY.

C. PROVIDE SMOKE DETECTOR IN THE SUPPLY AIR SIDE OF EACH UNIT, IN THE AIR STREAM AHEAD OF ALL FANS, COILS, ETC. WHICH SHALL COMPLETELY SHUT DOWN THE UNIT WHEN SMOKE IS DETECTED. PROVIDE REMOTE TESTING, PER THE REFERENCED BUILDING & MECHANICAL CODES. REFER TO THE MP GENERAL NOTES ON SHEET MP200.

D. MC SHALL HOLD (3) TRAINING SESSIONS (SUMMER & WINTER) WITH STORE MANAGER TO INSURE THEIR KNOWLEDGE OF PROPERLY USING THE CONTROLS.

ROOFTOP UNIT NATIONAL ACCOUNT

THE ROOFTOP UNIT ACCESSORIES SHALL BE PURCHASED THROUGH TRANE NATIONAL ACCOUNTS. CONTRACTOR SHALL CONTACT TRANE NATIONAL ACCOUNTS FOR PRICING & PURCHASING INFORMATION, CONTACT KEVIN SCHILF AT (407) 468-4258.

KITCHEN HOOD FIRE PROTECTION

KITCHEN HOOD FIRE PROTECTION SHALL BE AS INDICATED ON HOOD FIRE PROTECTION PLAN AND INTERLOCKED WITH THE EMERGENCY GAS VALVE IN THE LINE FEEDING THE GAS COOKING EQUIPMENT. THE VALVE SHALL SHUT DOWN GAS FLOW TO EQUIPMENT UPON ACTIVATION OF THE HOOD FIRE PROTECTION SYSTEM.

O & M MANUALS

THE CONTRACTOR SHALL PROVIDE OPERATIONS AND MAINTENANCE MANUALS TO THE OWNER WITH-IN 90 DAYS OF SYSTEM ACCEPTANCE.

MECHANICAL SYMBOLS LEGEND

CD	CONDENSATE DRAIN PIPING
AUX	AUXILIARY DRAIN PIPING
	PIPING DOWN
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
	VOLUME DAMPER
F.D.	FIRE DAMPER (FUSIBLE LINK)
S.D.	SMOKE DAMPER
S.F.	SMOKE/FIRE DAMPER
M	MOTORIZED DAMPER
20x16	DUCT DIMENSION, CLEAR INSIDE
	LINED DUCTWORK
	RECTANGULAR ELBOW WITH TURNING VANES
	90 DEGREE ELBOW DOWN
	90 DEGREE ELBOW UP
	DUCT SIZE TRANSITION
	DIFFUSER OF TYPE & CFM INDICATED
	BLANK OFF AIR FLOW IN THIS DIRECTION
	DIFFUSER WITH INTEGRAL DAMPER
	RETURN/EXHAUST GRILLE
	FLEXIBLE DUCT CONNECTION
	RETURN/EXHAUST AIR DUCT RISER
	SUPPLY DUCT RISER
U	UNDERCUT DOOR 1/2" FOR EXHAUST/MAKE-UP
	BACKDRAFT DAMPER
	OPPOSED BLADE DAMPER
CO	CARBON MONOXIDE DETECTOR
CO2	CARBON DIOXIDE DETECTOR
OAF	OUTSIDE AIR FLOW MEASUREMENT
SD	SMOKE DETECTOR
T	THERMOSTAT
T RS	REMOTE TEMPERATURE SENSOR
T/H RS	REMOTE TEMPERATURE/HUMIDITY SENSOR
M	ANSUL SYSTEM REMOTE PULL STATION
R	REMOTE TEST/RESET
SD	SPLITTER DAMPER

NOTE: NOT ALL SYMBOLS MAY APPEAR ON PLANS.

OUTBACK STEAKHOUSE®

GPD GROUP, INC.
LIC. # - 30920
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax 330.572.2101
CONSULTANT LOGO

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LICENSE No. 77967
BRANDON M. MARZLEY LICENSE No 77967 STATE OF FLORIDA PROFESSIONAL ENGINEER
01/31/25
SEALS

BLOOMIN' BRANDS
OUTBACK STEAKHOUSE
JOEY PROTOTYPE (2022.2 RELEASE)
STORE #2045
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES
4	09/27/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
MECHANICAL GENERAL NOTES

SHEET NO. M401
PROJ. NO. 2023231.05

KITCHEN HOODS (HOOD MAKE-UP AIR FANS AND EXHAUST FANS) ARE PROVIDED BY THE OWNER/KITCHEN DESIGNER. QUESTIONS REGARDING INSTALLATION REQUIREMENTS OR COORDINATION SHALL BE DIRECTED TO DAVID BREIDT WITH GREASEMASTER, (888) 909-9233 X13.

HOOD INFORMATION – JOB#5987236

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	MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1		5430 GSN-2-ACPSP-F	GREASEMASTER	10' 6"	600 DEG	I	HEAVY	210	2205			4"	16"	2205	1579	-0.708"	1980	600	430 SS WHERE EXPOSED	LEFT	ALONE
2		5430 GSN-2-ACPSP-F	GREASEMASTER	8' 6"	450 DEG	I	MEDIUM	250	2125			4"	16"	2125	1522	-0.734"	1570	500	430 SS WHERE EXPOSED	MIDDLE	ALONE
3		5430 GSN-2-ACPSP-F	GREASEMASTER	8' 0"	450 DEG	I	MEDIUM	185	1480			4"	12"	1480	1884	-0.671"	1330	500	430 SS WHERE EXPOSED	RIGHT	ALONE
4		5430 VGS-G-REM1	GREASEMASTER	7' 0"	700 DEG	II	N/A	150	1050			4"	12"	1050	1337	-0.129"	0	0	430 SS 100%	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	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1		CAPTRATE SOLO FILTER	7	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	WALL MNT	12"x24"x24"					YES	682 LBS
2		CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO							YES	562 LBS
3		CAPTRATE SOLO FILTER	5	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	RIGHT	12"x54"x30"	TANK FS	4.0/4.0	SC-331110MA	1 LIGHT 1 FAN	YES	872 LBS
4							2	L55 SERIES E26	NO							NO	275 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
3		RISER SENSOR INSTALL 6IN PLEN.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1		Front	126"	24"	6"	MUA	12"	28"		660	0.166"
						MUA	12"	28"		660	0.166"
						MUA	12"	28"		660	0.166"
						AC			8"	120	0.045"
						AC			8"	120	0.045"
						AC			8"	120	0.045"
						AC			8"	120	0.045"
						AC			8"	120	0.045"
2		Front	102"	24"	6"	MUA	12"	28"		785	0.230"
						MUA	12"	28"		785	0.230"
						AC			8"	125	0.049"
						AC			8"	125	0.049"
						AC			8"	125	0.049"
						AC			8"	125	0.049"
3		Front	108"	24"	6"	MUA	12"	28"		665	0.168"
						MUA	12"	28"		665	0.168"
						AC			8"	125	0.049"
						AC			8"	125	0.049"
						AC			8"	125	0.049"
						AC			8"	125	0.049"

WALL-MOUNT UTILITY CABINET

HOOD NO	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	WEIGHT
1	WALL MNT	12"x24"x24"					100 LBS

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

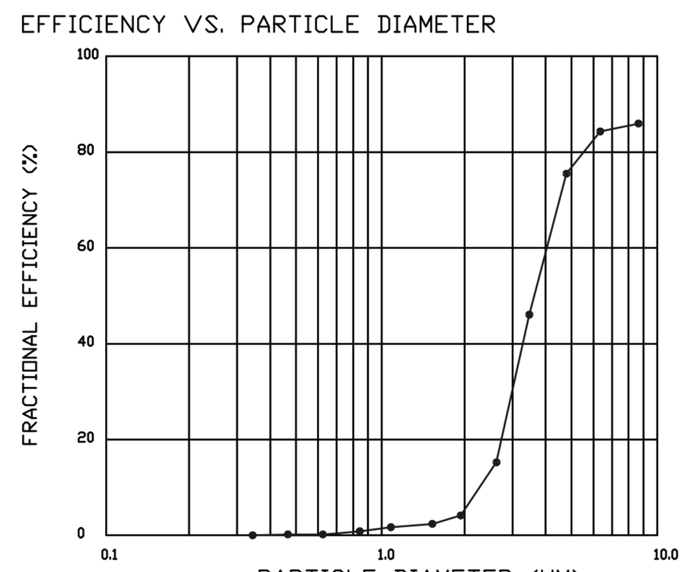
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

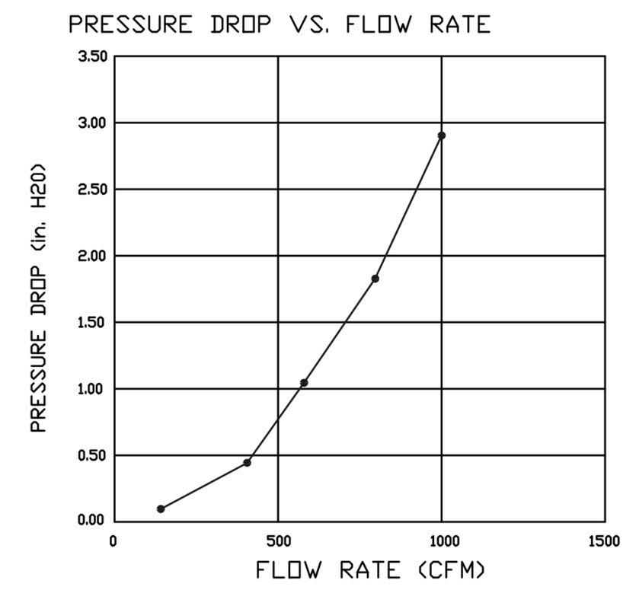
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER

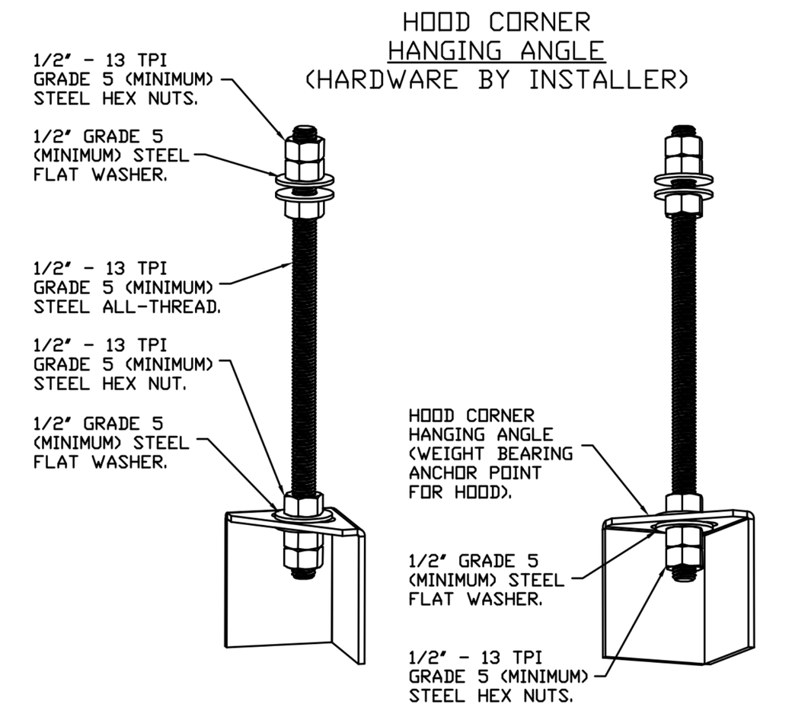


PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

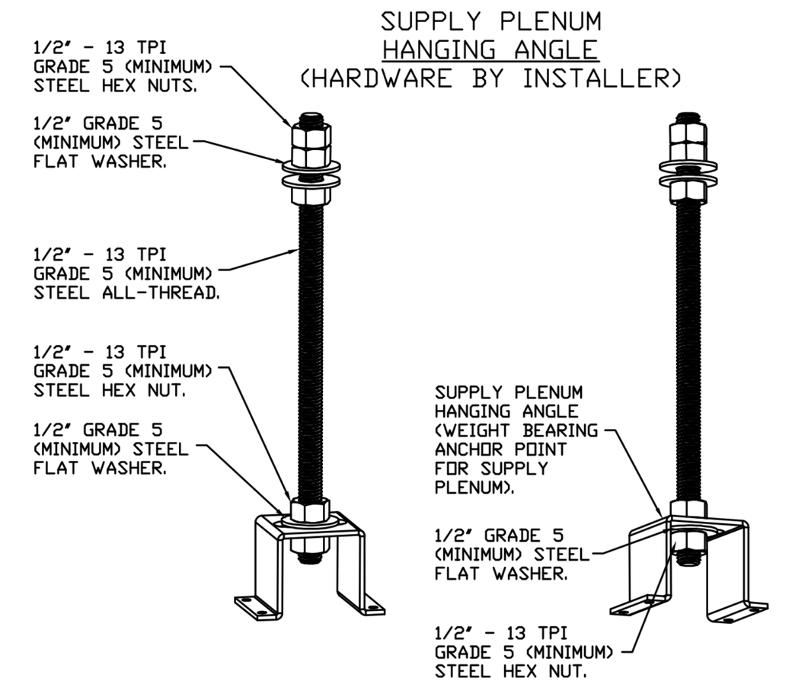
HOOD CORNER
HANGING ANGLE
(HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

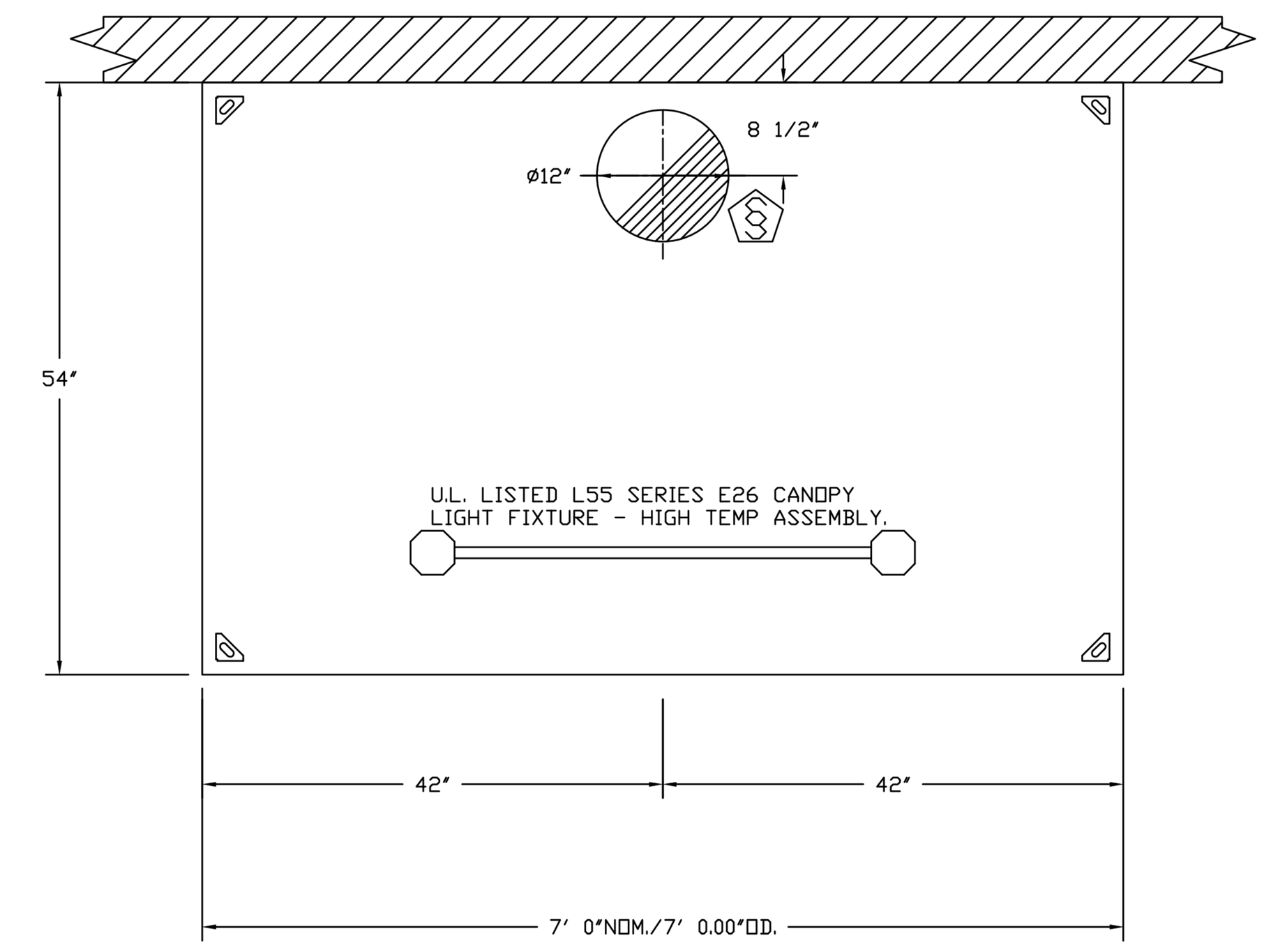
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND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

SUPPLY PLENUM
HANGING ANGLE
(HARDWARE BY INSTALLER)

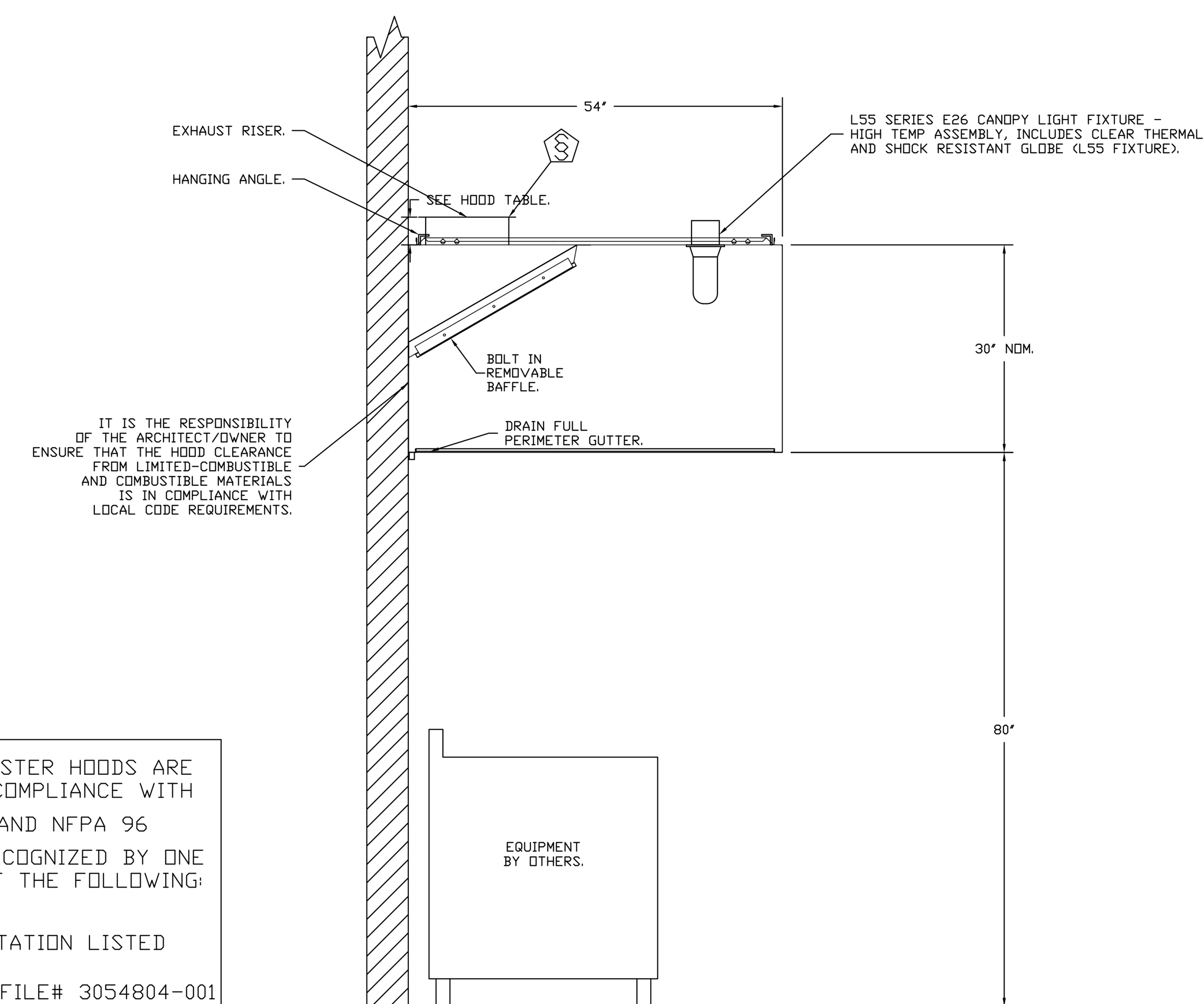


ASSEMBLY INSTRUCTIONS

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 ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



PLAN VIEW – HOOD #4
7' 0.00" LONG 5430VGS-G-REM1



SECTION VIEW – MODEL 5430VGS-G-REM1
HOOD – #4

GREASE MASTER 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

REVISIONS	
DESCRIPTION	DATE:

GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
WWW.GREASEMASTER.COM INFO@GREASEMASTER.COM

Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023
DWG.#: 5987236
DRAWN BY: dbreidt
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

OUTBACK STEAKHOUSE®

FOR REFERENCE ONLY

BLOOMIN' BRANDS
OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
HOOD DETAILS

SHEET NO. PROJ. NO. 2023231.05

MH101

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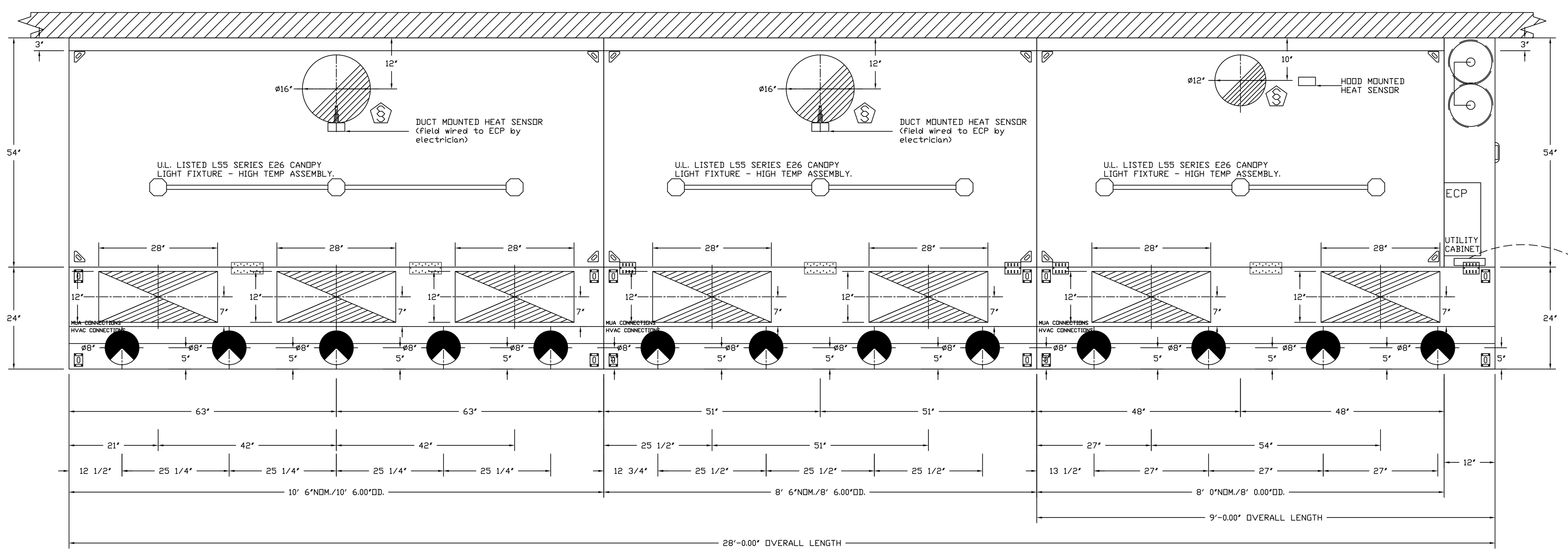


PLAN VIEW – HOOD #1
10' 6.00" LONG 5430GSN-2-ACPSP-F

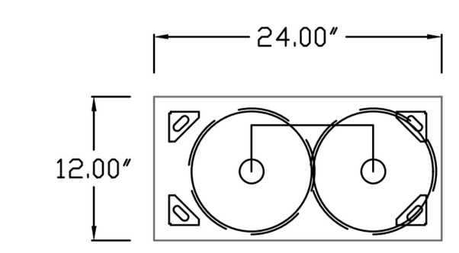
ACPSP SHIPS LOOSE FOR FIELD INSTALLATION

PLAN VIEW – HOOD #2
8' 6.00" LONG 5430GSN-2-ACPSP-F

ACPSP SHIPS LOOSE FOR FIELD INSTALLATION

PLAN VIEW – HOOD #3
8' 0.00" LONG 5430GSN-2-ACPSP-F

ACPSP SHIPS LOOSE FOR FIELD INSTALLATION



HOOD CONTROL INTERFACE

The LCD interface provides user control and hood status. The faceplate is connected to the hood control panel through CAT-5 cable. A faceplate has 2 RJ-45 connectors. One connects to port J4 or J5 in the hood control panel and the other will typically be occupied by a RJ-45 end-of-line terminator.

ROOM TEMPERATURE SENSOR

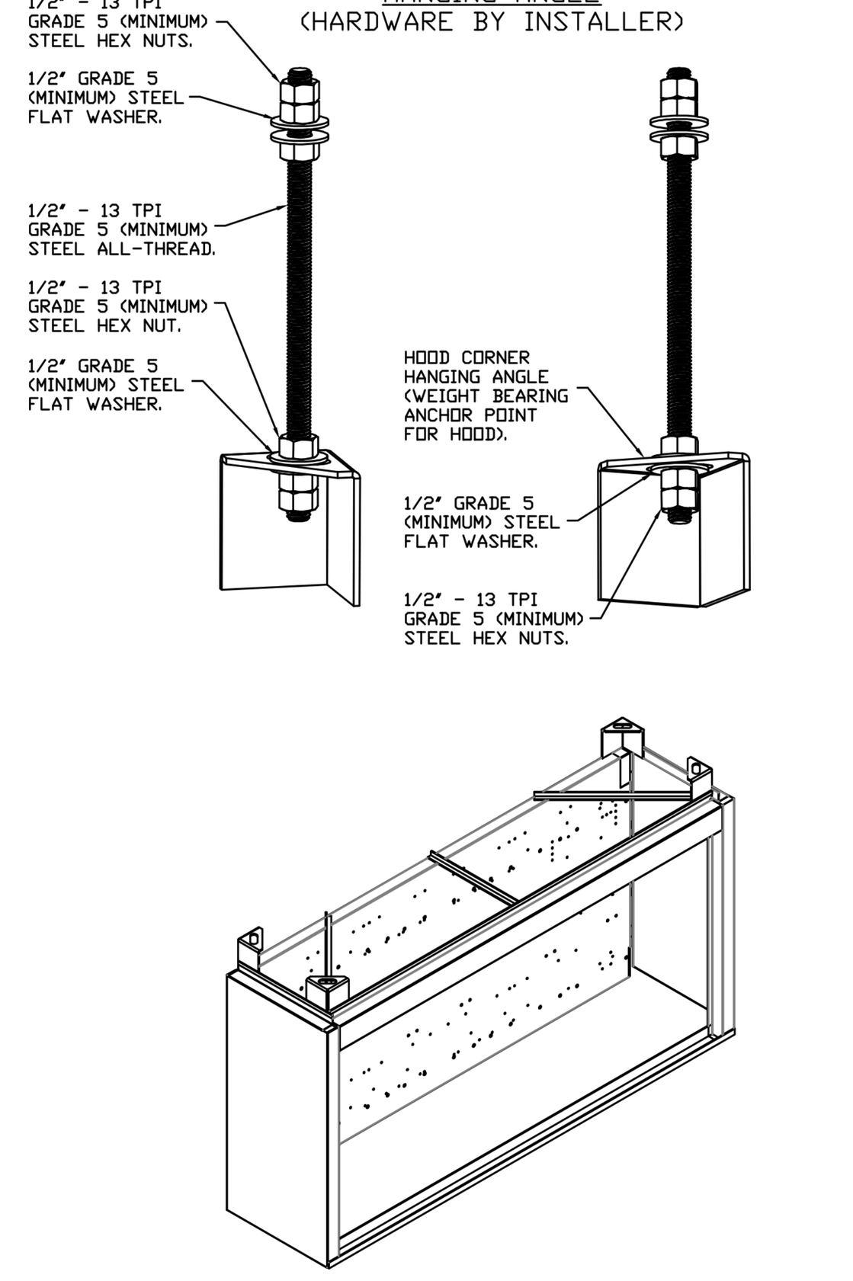
Provides room override based on temperature differential between the room and duct. Installed by electrician on a wall, 5'-6' off the finished floor, in the space but not directly under the hood or close to an appliance (including the electrical control box) so the reading is accurate for space.

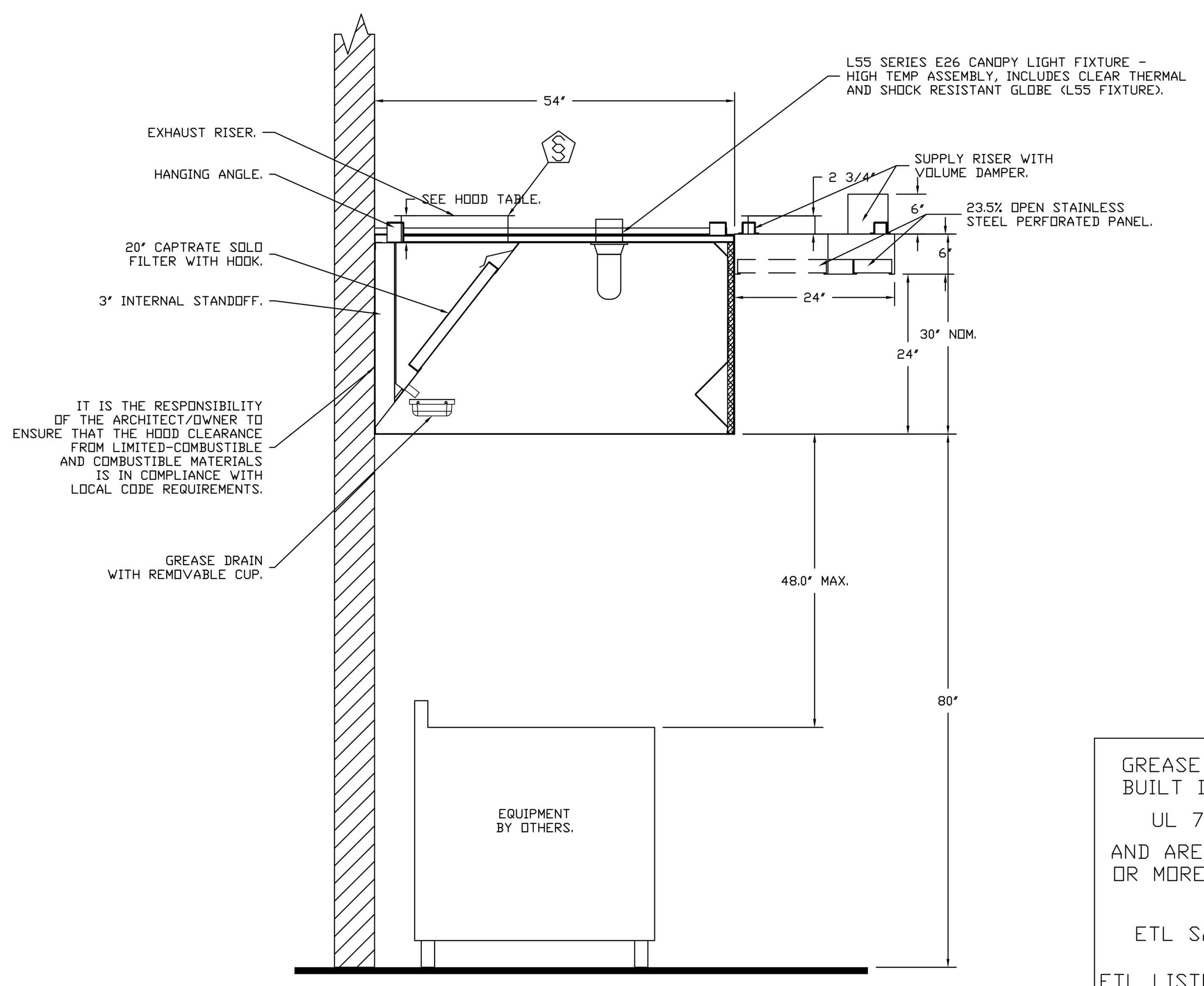
WALL-MOUNT UTILITY CABINET
ASSEMBLY INSTRUCTIONS

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 UTILITY CABINET HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

CABINET TO BE HUNG BY HOOD INSTALLER. SEE UTILITY CABINET SCHEDULE FOR CABINET SIZE.

UTILITY CABINET
HANGING ANGLE
(HARDWARE BY INSTALLER)





SECTION VIEW – MODEL 5430GSN-2-ACPSP-F
HOOD – #1,2, & 3

GREASE MASTER 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

REVISIONS

△	DESCRIPTION	DATE:
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GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
WWW.GREASEMASTER.COM INFO@GREASEMASTER.COM

Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023
DWG.#: 5987236
DRAWN BY: dbreidt
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 2

OUTBACK STEAKHOUSE®

FOR REFERENCE ONLY

BLOOMIN' BRANDS
OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
HOOD DETAILS

SHEET NO.
PROJ. NO. 2023231.05

MH102

KITCHEN HOODS (HOOD MAKE-UP AIR FANS AND EXHAUST FANS) ARE PROVIDED BY THE OWNER/KITCHEN DESIGNER. QUESTIONS REGARDING INSTALLATION REQUIREMENTS OR COORDINATION SHALL BE DIRECTED TO DAVID BREIDT WITH GREASEMASTER, (888) 909-9233 X13.

FIRE SYSTEM INFORMATION – JOB#5987236

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	58	FIRE CABINET RIGHT	RIGHT, HOOD 3
			4.0/4.0		WALL UTILITY CABINET LEFT	N/A

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	2.500	GREASEMASTER

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER – PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 – 0 – TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 – 0 – TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 – 0 – 12-F28021-32144-OT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F.	3	0
		0 – 0 – 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	4	0
		0 – 0 – 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 – 0 – 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 – 0 – 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	4	0
		0 – 0 – 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) – SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 87-300001-001 TANK – PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	4	0
		0 – 0 – 87-300030-001 PRIMARY ACTUATOR KIT (PAK) – ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	16	0
		0 – 0 – 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	8	0
		0 – 0 – A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	2	0
		0 – 0 – A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 – 0 – DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 – 0 – SLPCON-03FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 2' GAP. KIT CONTAINS 5 FEET OF BLACK MG WIRE, 5 FEET OF TAN MG WIRE, 3 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	3	0
		0 – 0 – SLPCON-30FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UPTO 29' GAP. KIT CONTAINS 32 FEET OF BLACK MG WIRE, 32 FEET OF TAN MG WIRE, 30 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 – 0 – TANK STRAP TANK STRAP – USED FOR TANK FIRE SUPPRESSION.	12	0
		0 – 0 – TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 – 0 – WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	4	0
		34 – 34 – A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	2	0

REVISIONS

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Outback Steakhouse- Lakewood Ranch, FL
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DATE: 5/4/2023
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DRAWN BY: dbreidt
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MASTER DRAWING
SHEET NO. 3

OUTBACK STEAKHOUSE®

FOR REFERENCE ONLY

BLOOMIN' BRANDS
OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

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PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
HOOD DETAILS

SHEET NO. PROJ. NO. 2023231.05

MH103

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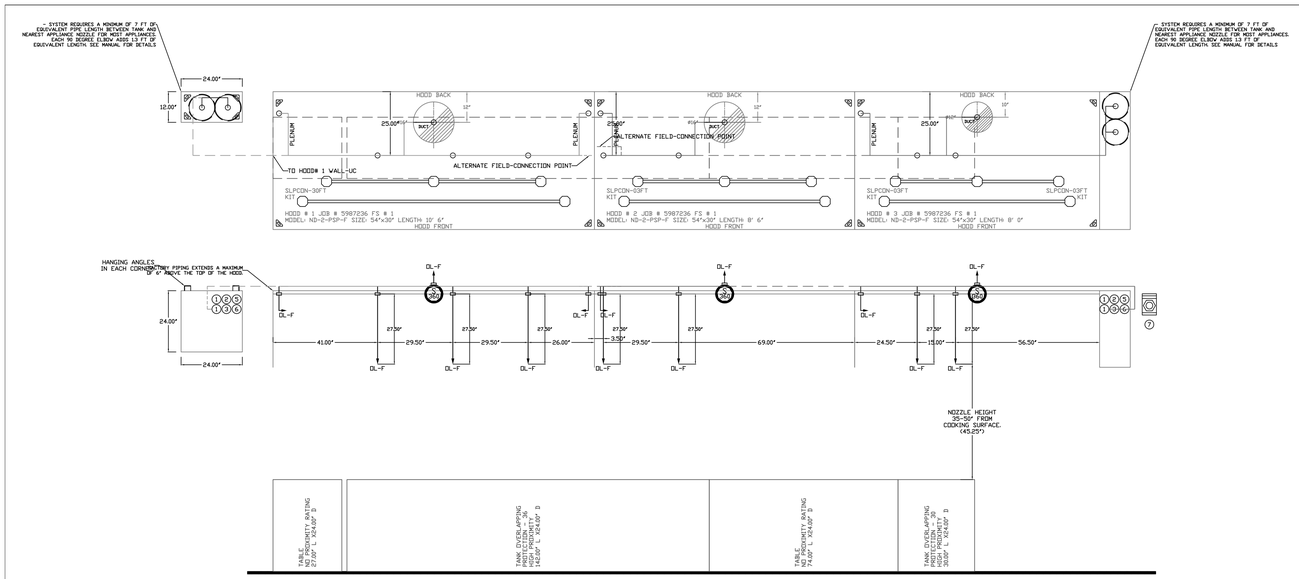

SECTION VIEW – MODEL 5430GSN-2-ACPSP-F HOOD – #1

SECTION VIEW – MODEL 5430GSN-2-ACPSP-F HOOD – #2

SECTION VIEW – MODEL 5430GSN-2-ACPSP-F HOOD – #3

INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE. TWO SITE VISITS ONLY (ONE VISIT TO SET PULL STATION & SYSTEM HOOKUP AND ONE VISIT FOR ONE TEST). ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES). ONE MECHANICAL OR ELECTRICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 2", PERMIT, AND SYSTEM TEST.
EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE), GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED 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 UL. 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 5987236.
JOB NAME: OUTBACK STEAKHOUSE- LAKEWOOD RANCH, FL.

SYSTEM SIZE: TANK-SP-2 WITH REMOTE TANK-SP-2-WC TOTAL FP REQUIRED: 58.
HOOD # 1 10' 6.00" LONG x 54" WIDE x 30" HIGH.
RISER # 1 SIZE: 16" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.
HOOD # 2 8' 6.00" LONG x 54" WIDE x 30" HIGH.
RISER # 1 SIZE: 16" DIA.
HOOD # 2 METAL BLOW-OFF CAPS INCLUDED.
HOOD # 3 8' 0.00" LONG x 54" WIDE x 30" HIGH.
RISER # 1 SIZE: 12" DIA.
HOOD # 3 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND – FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

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Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023
DWG.#: 5987236
DRAWN BY: dbreidt
SCALE: 1/2" = 1'-0"
MASTER DRAWING
SHEET NO. 4

OUTBACK STEAKHOUSE®

CONSULTANT LOGO

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BLOOMIN' BRANDS

OUTBACK STEAKHOUSE
12245 SR 70 E.
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

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PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
HOOD DETAILS

SHEET NO. MH104
PROJ. NO. 2023231.05

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EXHAUST FAN INFORMATION – JOB#5987236

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	EF-1	1	GM-RE18DD	GREASEMASTER	2205	1.250	1334	ODP,PREMIUM	2.000	1.3130	3	208	6.1	1279 FPM	321	18.5
2	EF-2	1	GMDU180H	GREASEMASTER	2125	1.250	1100	ODP,PREMIUM	2.000	0.9210	3	208	6.1	491 FPM	194	12.1
3	EF-3	1	GMDU85H	GREASEMASTER	1480	1.000	1268	ODP	0.750	0.3690	3	208	2.6	468 FPM	130	10.1
4	EF-4	1	GMDU30H	GREASEMASTER	1050	0.400	1542	ODP	0.250	0.1790	1	115	3.8	520 FPM	109	11.4
5	EF-5	1	GMDR30H	GREASEMASTER	450	0.375	1025	ODP	0.250	0.0620	1	115	3.8		97	5.2

MUA FAN INFORMATION – JOB#5987236

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
6	MUA-1	1	GM2-20D-MPU	20MF-2-MOD	A2	2900	4880	0.400	1696	ODP,PREMIUM	5.000	2.7880	3	208	15.0	18.8A	30A	1476	24.3

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
6	MUA-1	GM2-20D-MPU	1	3	208-230	3 PHASE	60 HZ	11.7 AMPS	8.46 AMPS	20 AMPS	14 AWG	14
			2	5	208-230	3 PHASE	60 HZ	21.5 AMPS	15.96 AMPS	30 AMPS	10 AWG	14

COILS – JOB#5987236

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING											HEATING								
				ENTERING DB TEMP	ENTERING WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	ENTERING DB TEMP	LEAVING DB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	STEAM PRESSURE	TOTAL CAPACITY	SENSIBLE CAPACITY
6	MUA-1	DX	4880	91.0°F	79.0°F	80.2°F	74.3°F	---	---	---	---	96.0 MBH	56.1 MBH	39.9 MBH	---	---	---	---	---	---	---	---	---

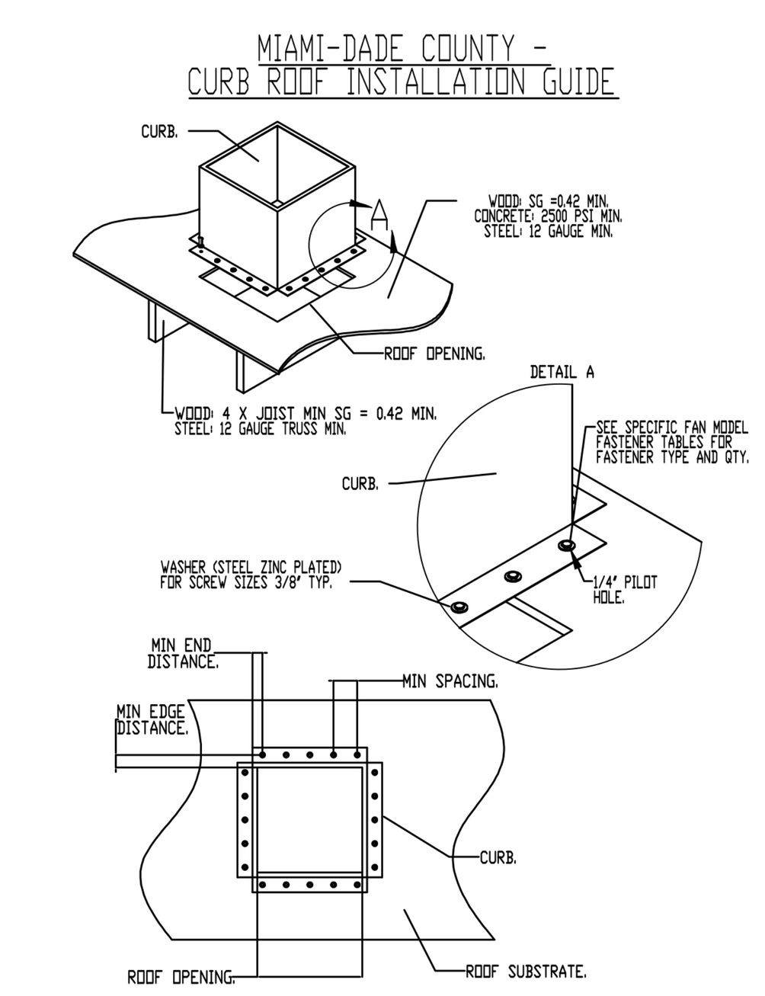
FAN UNIT NO	TAG	FAN UNIT MODEL #	HEATING MODE ENTERING DB TEMP	HEATING MODE TEMP RISE	HEATING MODE DISCHARGE DB TEMP
6	MUA-1	GM2-20D-MPU	44.0°F	12.0°F	56.0°F

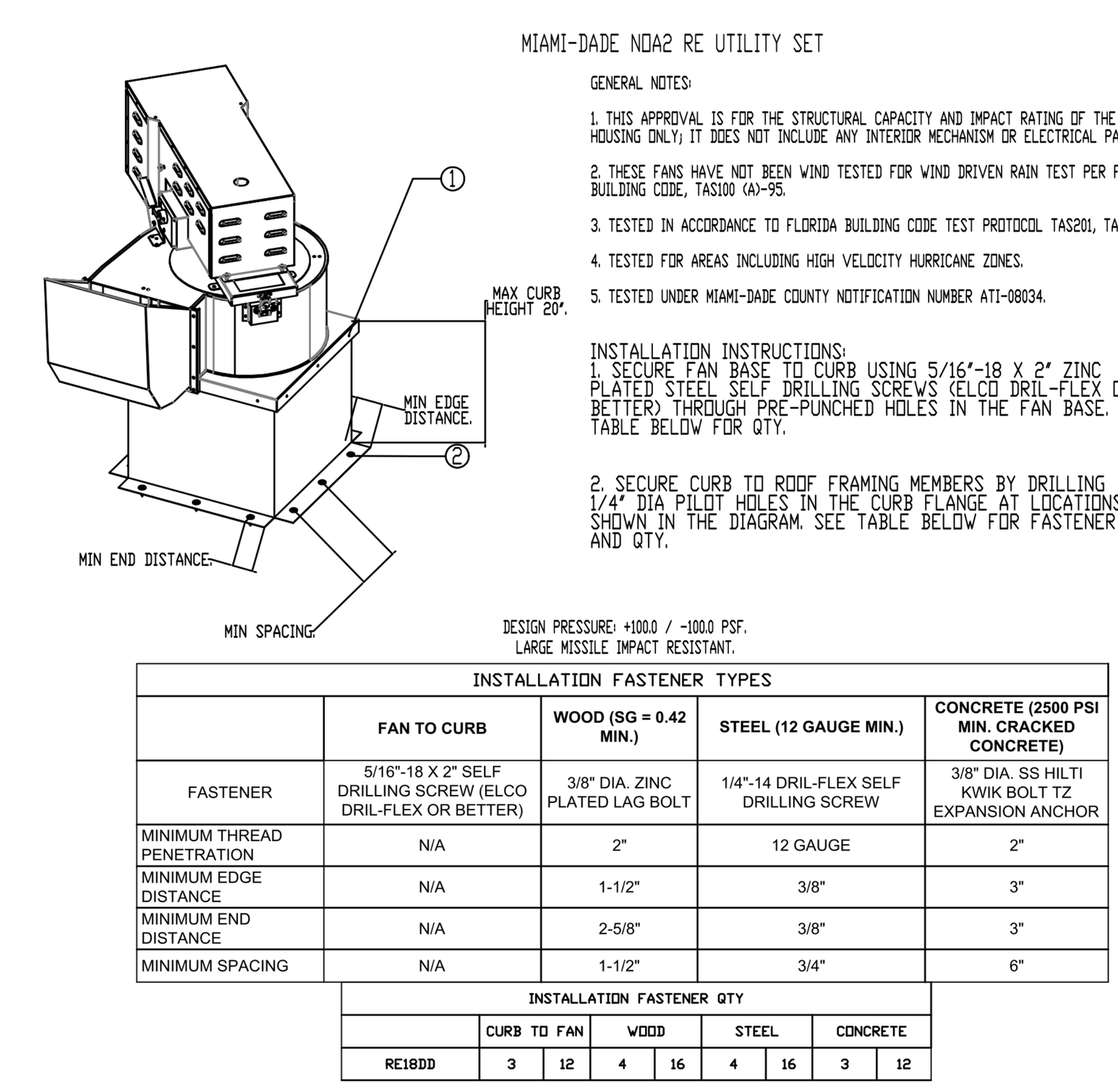
FAN OPTIONS

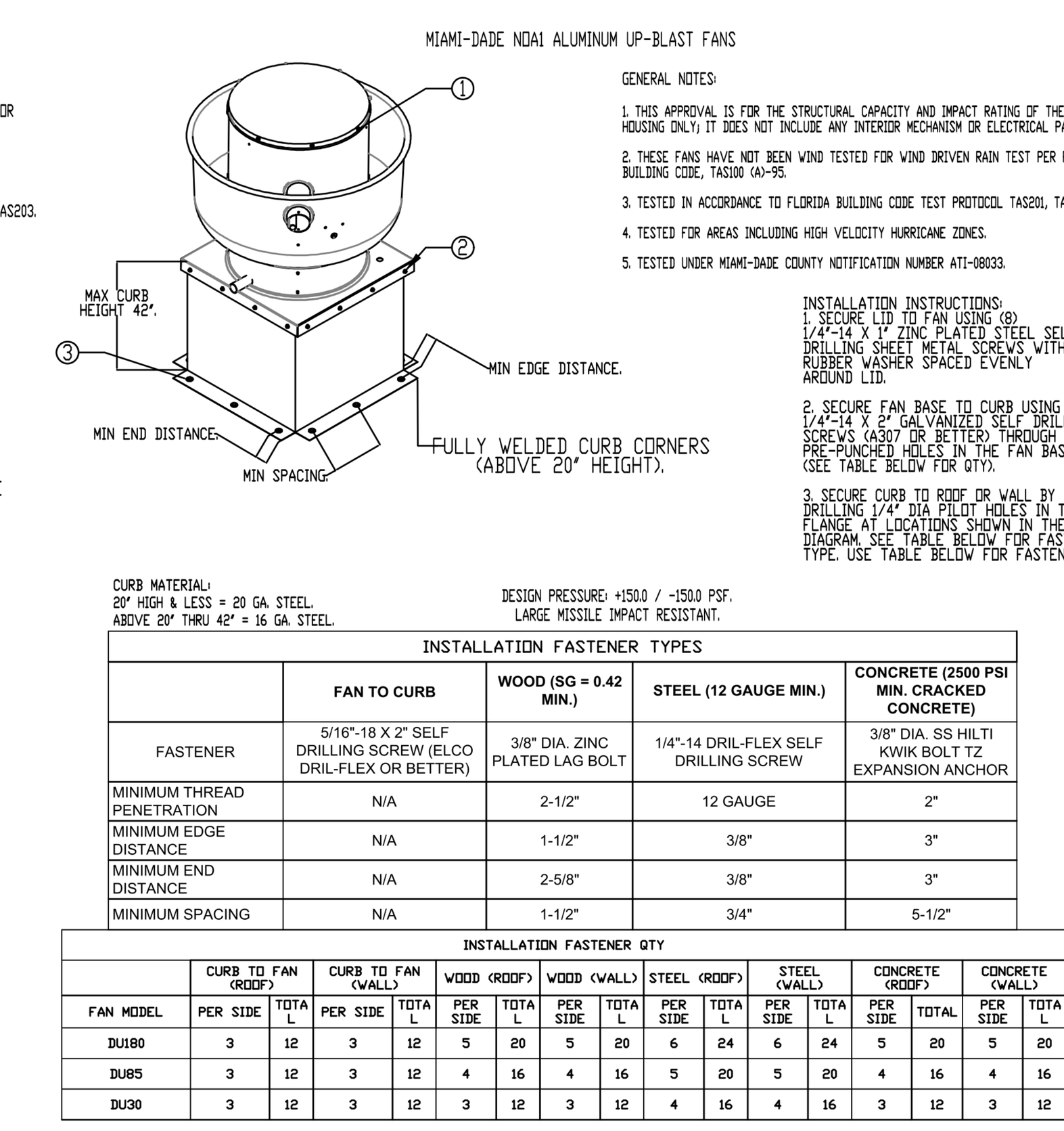
FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	UTILITY SET GREASE CUP
		1	FULL CRATING FOR EXHAUST FANS
		1	RE18 - RAIN CAP ASSEMBLY - INCLUDES HARDWARE AND GASKET
		1	MIAMI DADE CERTIFICATION - NOA-2 RE UTILITY SET
		1	2 YEAR PARTS WARRANTY
2	EF-2	1	GREASE BOX
		1	FULL CRATING FOR EXHAUST FANS
		1	MIAMI DADE CERTIFICATION - NOA-1 ALUMINUM UPBLAST
		1	2 YEAR PARTS WARRANTY
3	EF-3	1	GREASE BOX
		1	FULL CRATING FOR EXHAUST FANS
		1	MIAMI DADE CERTIFICATION - NOA-1 ALUMINUM UPBLAST
		1	2 YEAR PARTS WARRANTY
4	EF-4	1	GREASE BOX
		1	FULL CRATING FOR EXHAUST FANS
		1	MIAMI DADE CERTIFICATION - NOA-1 ALUMINUM UPBLAST
		1	2 YEAR PARTS WARRANTY
5	EF-5	1	I 15-BDD DAMPER
		1	FULL CRATING FOR EXHAUST FANS
		1	MIAMI DADE CERTIFICATION - NOA-1 ALUMINUM DOWNBLAST 11
		1	2 YEAR PARTS WARRANTY
6	MUA-1	1	SIZE 2 UNTEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	FULL CRATING FOR UNTEMPERED FANS
		1	MIAMI DADE CERTIFICATION - NOA-2 SUPPLY
		1	GRAVITY BACKDRAFT DAMPER FOR SIZE 2 HOUSING
		1	8 TON 2 CIRCUIT (3/5) MODULAR PACKAGED COOLING OPTION WITH HEAT PUMP FOR SIZE 2 MUA (2,900 TO 4,800 CFM), 208V/230V, 3 PHASE
		1	INSULATED BLOWER SECTION SIZE 1-2 COMMERCIAL
		1	MOD PACKAGE UNIT HEAT PUMP CONTROLS FOR UNTEMPERED FANS
		1	MIXING BOX SHELL FOR SIZE 2 MOD PACKAGE UNIT CONDENSER SUPPORT
		1	SIZE 2 COOLING COIL MOISTURE ELIMINATOR OPTION - ALLOWS COOLING COIL FACE VELOCITY TO INCREASE TO 650 FPM - INCREASES COOLING COIL MAX CFM TO 6000 CFM
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	SHIP CONDENSERS LOOSE - TWO CONDENSERS, THREE PHASE - CONDENSER DISCONNECTS SHIPPED LOOSE. ALL PIPING AND WIRING BETWEEN INDOOR AND OUTDOOR UNITS BY OTHERS
		1	CONDENSING UNIT LOCKING CAPS FOR DOUBLE HEAT PUMP CONDENSER UNITS
		1	2 YEAR PARTS WARRANTY

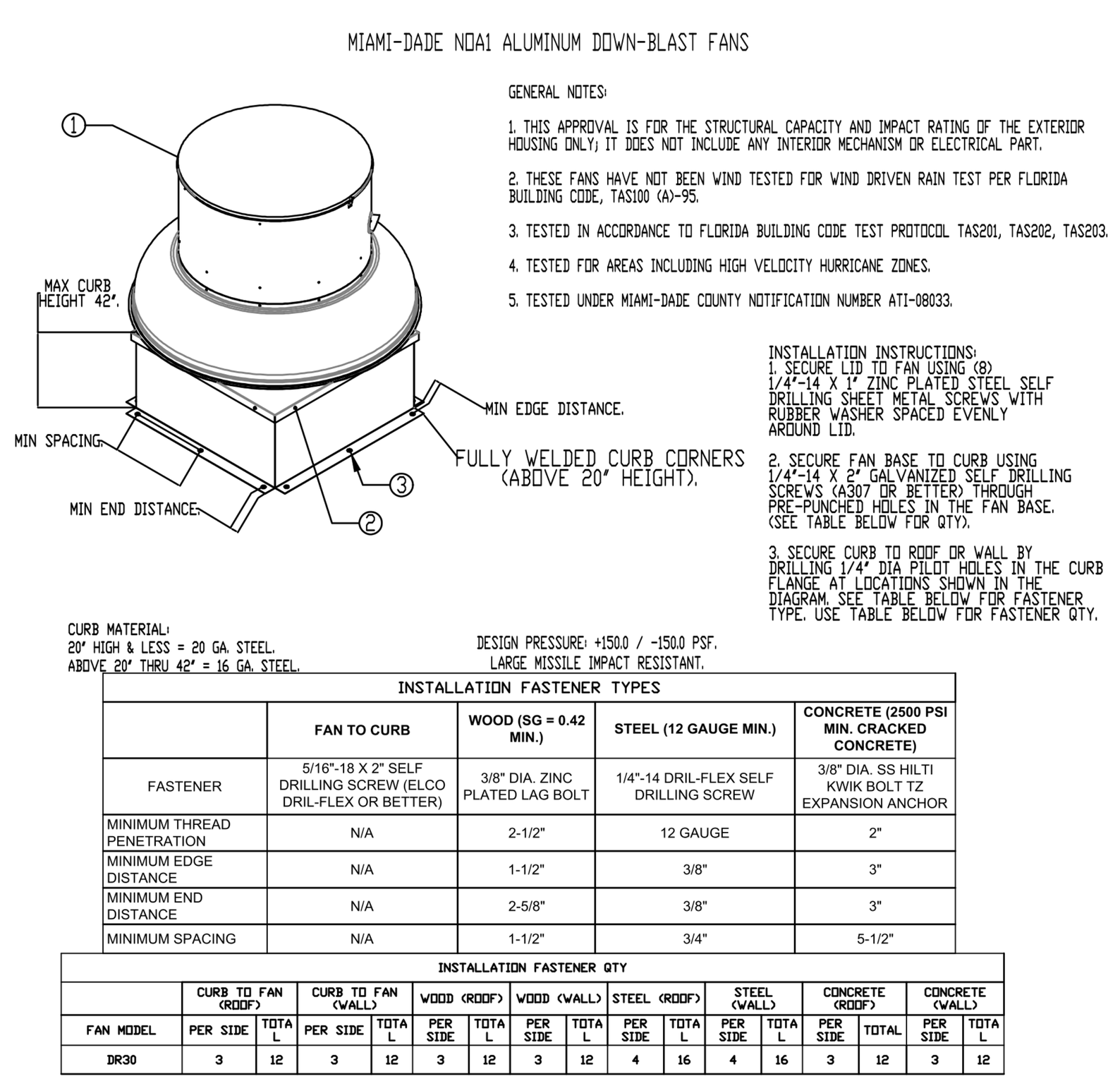
CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF-3	37 LBS	CURB	26.500"W X 26.500"L X 20.000"H ALONG LENGTH, RIGHT VENTED.
2	# 2	EF-2	34 LBS	CURB	26.500"W X 26.500"L X 26.000"H ALONG LENGTH, RIGHT VENTED HINGED.
3	# 3	EF-1	44 LBS	CURB	23.000"W X 23.000"L X 26.000"H ALONG LENGTH, RIGHT VENTED HINGED.
4	# 4	EF-4	20 LBS	CURB	19.500"W X 19.500"L X 18.000"H ALONG LENGTH, RIGHT.
5	# 5	EF-5	20 LBS	CURB	19.500"W X 19.500"L X 18.000"H ALONG LENGTH, RIGHT.
6	# 6	MUA--1	83 LBS	CURB	31.000"W X 121.000"L X 20.000"H ALONG WIDTH, RIGHT INSULATED MPU CURB CLIPS.









REVISIONS

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GREASE MASTER™

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Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023

DWG.#: 5987236

DRAWN BY: dbreidt

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 5

OUTBACK STEAKHOUSE®

FOR REFERENCE ONLY

BLOOMIN' BRANDS

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LAKEWOOD RANCH, FL 34202

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SHEET NO.
MH105

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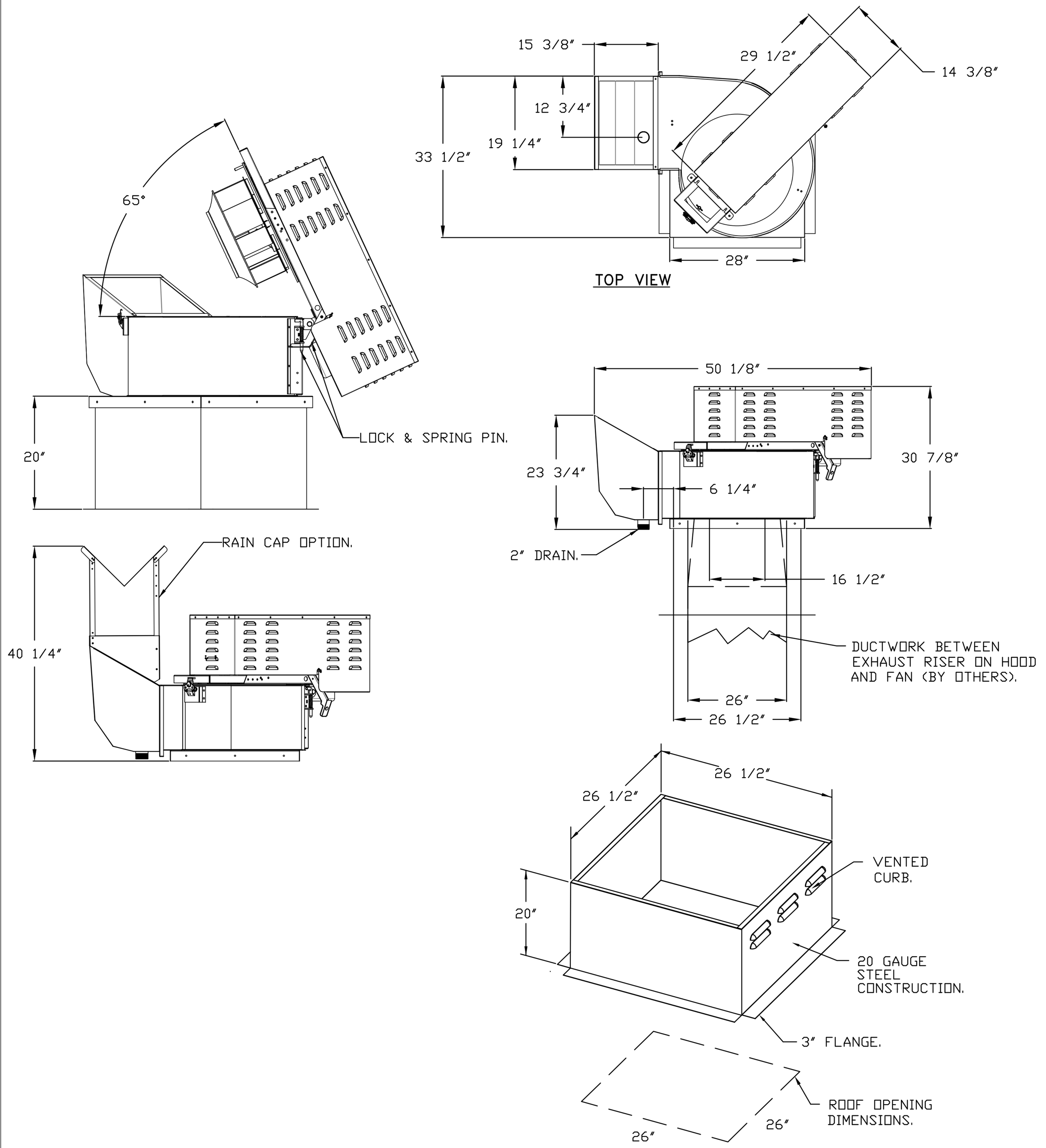
KITCHEN HOODS (HOOD MAKE-UP AIR FANS AND EXHAUST FANS) ARE PROVIDED BY THE OWNER/KITCHEN DESIGNER. QUESTIONS REGARDING INSTALLATION REQUIREMENTS OR COORDINATION SHALL BE DIRECTED TO DAVID BREIDT WITH GREASEMASTER, (888) 909-9233 X13.

FAN #1 GM-RE18DD - EXHAUST FAN (EF-1)



FEATURES:

- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL762 AND ULC-S645.
- HIGH HEAT OPERATION DIRECT DRIVE 300°F (149°C).
- HEAT SLINGER.
- GREASE CLASSIFICATION TESTING.
- TILT OUT WHEEL.
- LOCKING PIN FOR POWER PACK.
- MOTOR WEATHER COVER.
- INTERLOCKED DISCONNECT SWITCH.
- NEMA 4X SAFETY DISCONNECT SWITCH.

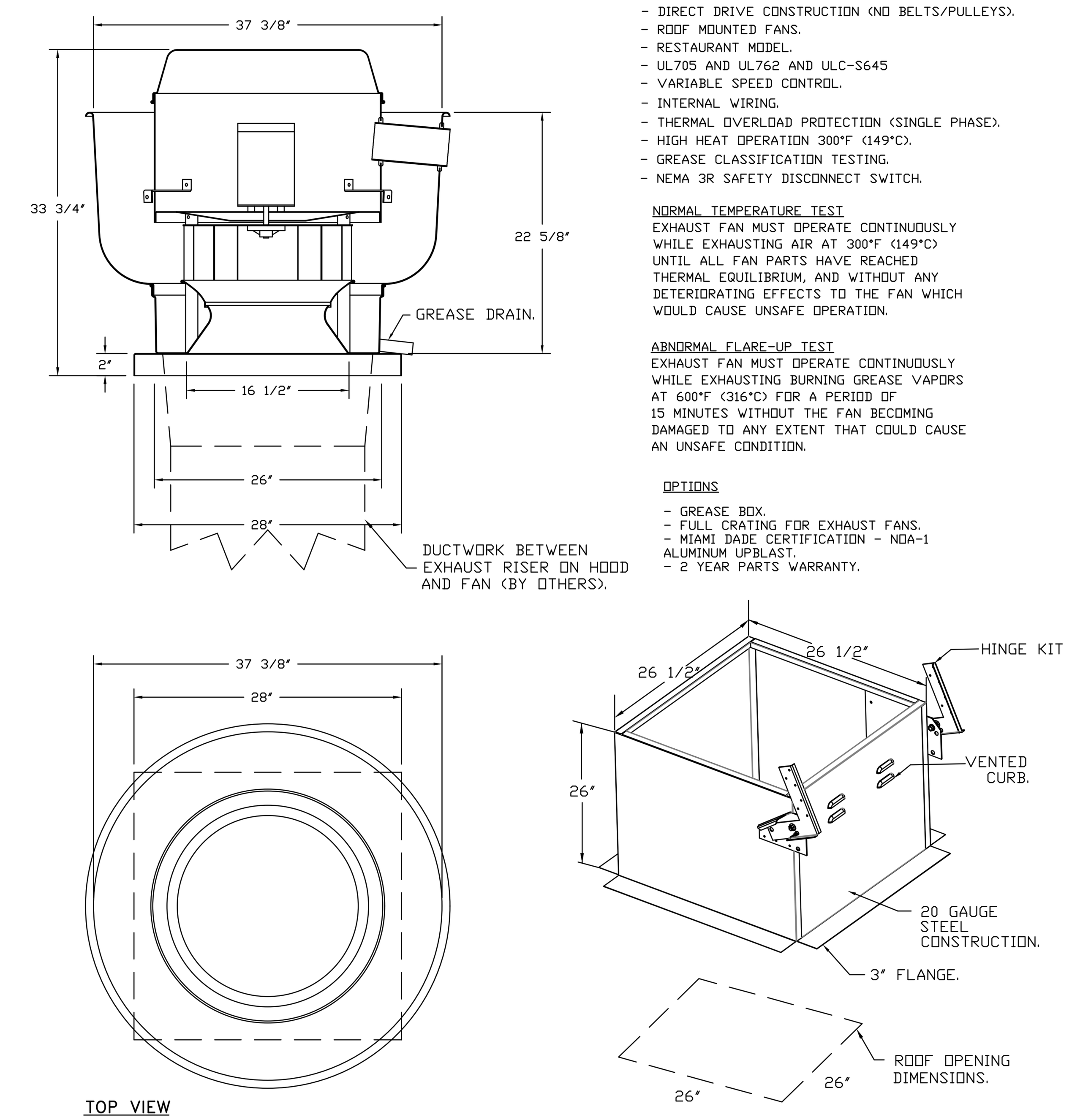
NORMAL TEMPERATURE TEST DIRECT DRIVE
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST BELT & DIRECT DRIVE
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

- UTILITY SET GREASE CUP.
- FULL CRATING FOR EXHAUST FANS.
- RE18 - RAIN CAP ASSEMBLY - INCLUDES HARDWARE AND GASKET.
- MIAMI DADE CERTIFICATION - NOA-2 RE UTILITY SET.
- 2 YEAR PARTS WARRANTY.

FAN #2 GMDU180H - EXHAUST FAN (EF-2)



FEATURES:

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

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.
- FULL CRATING FOR EXHAUST FANS.
- MIAMI DADE CERTIFICATION - NOA-1 ALUMINUM UPBLAST.
- 2 YEAR PARTS WARRANTY.

REVISIONS

DESCRIPTION	DATE:

GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
WWW.GREASEMASTER.COM INFO@GREASEMASTER.COM

Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023

DWG.#: 5987236

DRAWN BY: dbreidt

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 6

OUTBACK STEAKHOUSE

FOR REFERENCE ONLY

BLOOMIN' BRANDS

OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

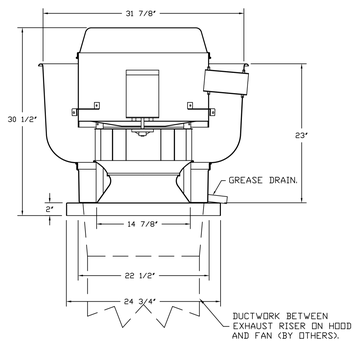
SHEET TITLE:
HOOD DETAILS

SHEET NO.
PROJ. NO. 2023231.05

MH106

KITCHEN HOODS (HOOD MAKE-UP AIR FANS AND EXHAUST FANS) ARE PROVIDED BY THE OWNER/KITCHEN DESIGNER. QUESTIONS REGARDING INSTALLATION REQUIREMENTS OR COORDINATION SHALL BE DIRECTED TO DAVID BREIDT WITH GREASEMASTER, (888) 909-9233 X13.

FAN #3 GMDUBSH - EXHAUST FAN (CF-3)



FEATURES:

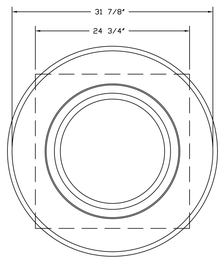
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT 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.

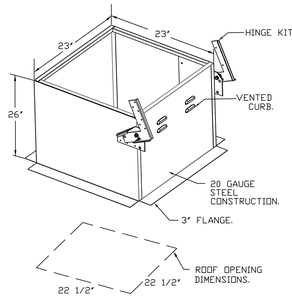
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

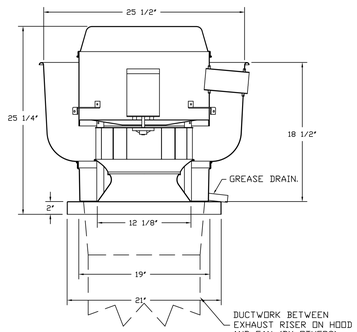
- GREASE BOX.
- FULL CRATING FOR EXHAUST FANS.
- MIAMI DADE CERTIFICATION - NOA-1 ALUMINUM UPBLAST.
- 2 YEAR PARTS WARRANTY.



TOP VIEW



FAN #4 GMDU30H - EXHAUST FAN (CF-4)



FEATURES:

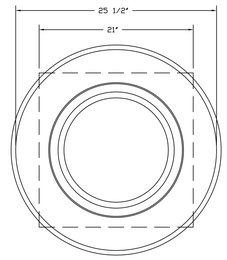
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT 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.

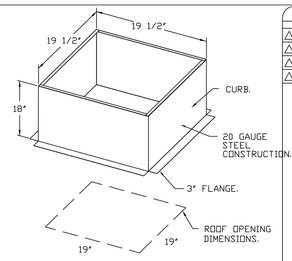
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

- GREASE BOX.
- FULL CRATING FOR EXHAUST FANS.
- MIAMI DADE CERTIFICATION - NOA-1 ALUMINUM UPBLAST.
- 2 YEAR PARTS WARRANTY.



TOP VIEW



REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
WWW.GREASEMASTER.COM INFO@GREASEMASTER.COM

Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023

DWG.#: 5987236

DRAWN BY: dbreidt

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 7

CONSULTANT LOGO

FOR REFERENCE ONLY

SEAL

BLOOMIN' BRANDS

OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

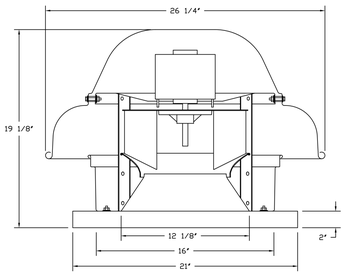
SHEET TITLE:
HOOD DETAILS

SHEET NO. MH107

PROJ. NO. 2023231.05

KITCHEN HOODS (HOOD MAKE-UP AIR FANS AND EXHAUST FANS) ARE PROVIDED BY THE OWNER/KITCHEN DESIGNER. QUESTIONS REGARDING INSTALLATION REQUIREMENTS OR COORDINATION SHALL BE DIRECTED TO DAVID BREIDT WITH GREASEMASTER, (888) 909-9233 X13.

FAN #5 GMDR30H - EXHAUST FAN (EF-5)

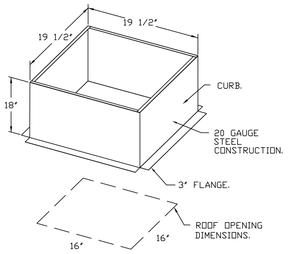


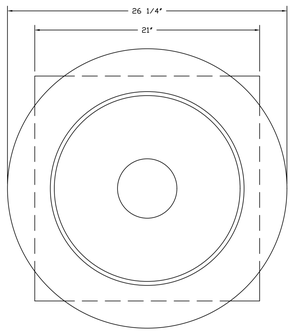
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).

OPTIONS

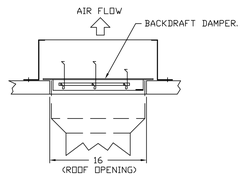
- 1 15-BDD DAMPER.
- FULL CRATING FOR EXHAUST FANS.
- MIAMI DADE CERTIFICATION - NOA-1 ALUMINUM DOWNBLAST 11.
- 2 YEAR PARTS WARRANTY.





TOP VIEW

BACKDRAFT DAMPER INSTALLATION



REVISIONS

	DESCRIPTION	DATE:
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GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
WWW.GREASEMASTER.COM INFO@GREASEMASTER.COM

Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023

DWG.#: 5987236

DRAWN BY: dbreidt

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 8

OUTBACK STEAKHOUSE®

CONSULTANT LOGO

FOR REFERENCE ONLY

SEAL

BLOOMIN' BRANDS

OUTBACK STEAKHOUSE

12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: TH

SHEET TITLE:
HOOD DETAILS

SHEET NO. MH108

PROJ. NO. 2023231.05

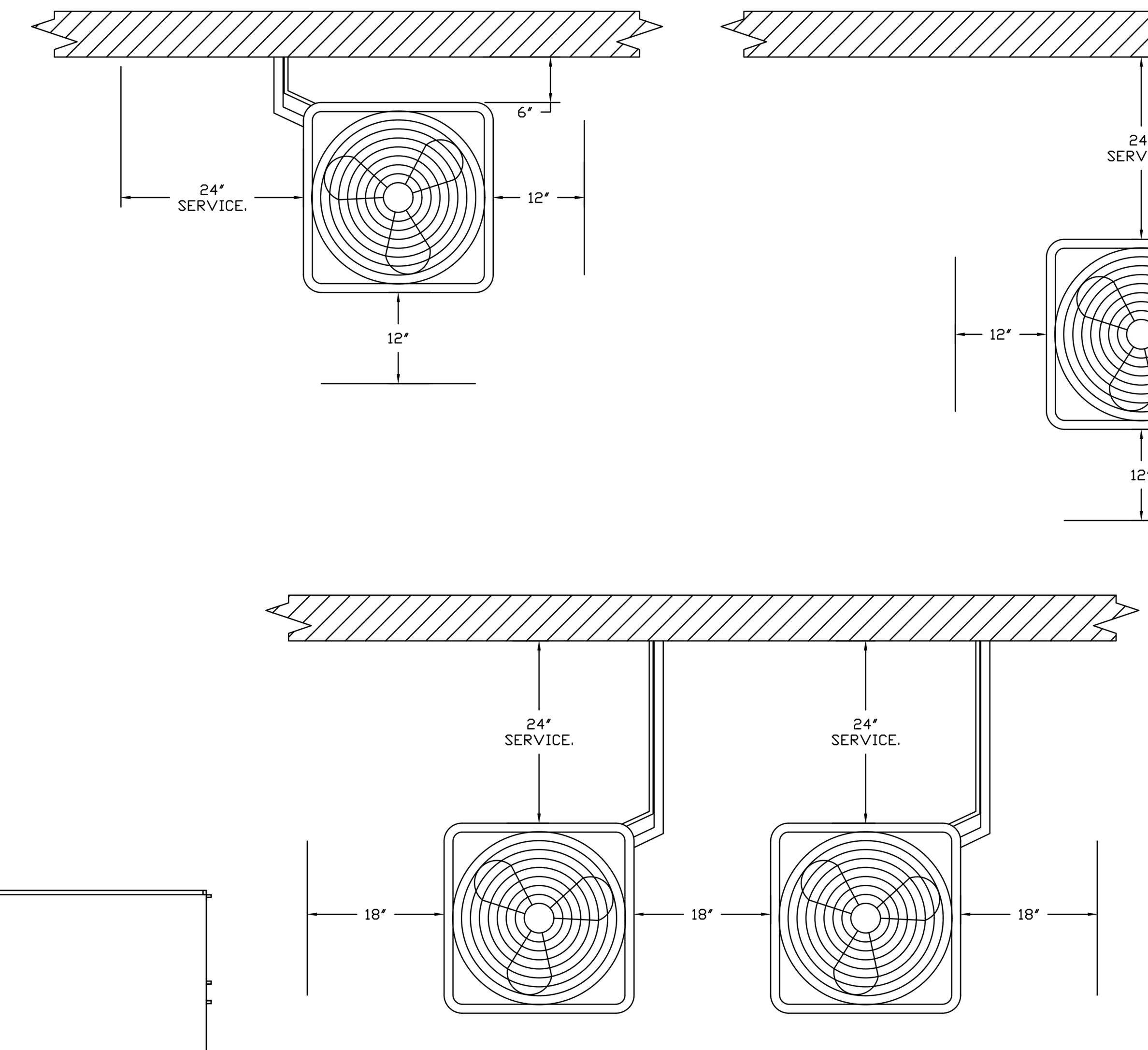
KITCHEN HOODS (HOOD MAKE-UP AIR FANS AND EXHAUST FANS) ARE PROVIDED BY THE OWNER/KITCHEN DESIGNER. QUESTIONS REGARDING INSTALLATION REQUIREMENTS OR COORDINATION SHALL BE DIRECTED TO DAVID BREIDT WITH GREASEMASTER, (888) 909-9233 X13.

FAN #6 GM2-20D-MPU - SUPPLY FAN (MUA-1)

1. SUPPLY UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN IN SIZE #2 HOUSING.
2. INTAKE HOOD WITH EZ FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 2 UNTEMPERED DIRECT DRIVE AHUS.
5. FULL CRATING FOR UNTEMPERED FANS FOR SHIPPING.
6. MIAMI DADE IMPACT AND WIND LOAD CERTIFICATION +30 / -130 PSF - MIAMI DADE COUNTY PRODUCT CONTROL APPROVED. FLORIDA BUILDING CODE APPROVAL. ROOF MOUNT EXHAUST CURBS UP TO 20" HIGH MUST BE 18 GAUGE ALUMINIZED.
7. GRAVITY BACK DRAFT DAMPER 22" X 24" , STANDARD GALVANIZED CONSTRUCTION, 1 1/4" REAR FLANGE, FOR SIZE 2 UNTEMPERED FAN HOUSING (5182).
8. 8 TON, DUAL CIRCUIT (3/5) MODULAR PACKAGED COOLING OPTION WITH HEAT PUMP FOR SIZE 2 MODULAR PACKAGED UNIT. INCLUDES HEAT PUMP, DX COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING. (2,900 TO 4,800 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION. DRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE. ANY OTHER CHANGE WILL REQUIRE CLI. CONDENSERS REQUIRE SEPARATE 208V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 3EZ1101D.
9. INSULATED BLOWER HOUSING SIZES 1-2 COMMERCIAL MODULAR.
10. CONTROL PACKAGE FOR MOD PACKAGE UNIT HEAT PUMP UNIT. INCLUDES AIRFLOW PROVING SWITCH, RTULINK-ACHP BOARD AND TERMINAL BLOCKS.
11. SUPPORT SHELL FOR SIZE 2 MODULAR PACKAGE UNIT. INCLUDES CONTROL VESTIBULE. INCLUDES CONDENSER SUPPORTS. DOES NOT INCLUDE RETURN AIR OR INLET AIR DAMPER.
12. SIZE 2 MOISTURE ELIMINATOR OPTION FOR DX COIL, MPUS AND CHILLED WATER COILS - ALLOWS COOLING COIL FACE VELOCITY TO INCREASE TO 650 FPM. INCREASES COOLING COIL MAX CFM TO 6000 CFM.
13. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
14. UNIT MOUNTED VFD FOR USE WITH ECPM03.
15. SHIP CONDENSERS LOOSE. THE REFRIGERATION LINES WILL NEED TO BE STUBBED OUT 12 INCHES. THE SUCTION LINES NEEDS TO BE INSULATED INSIDE THE COIL MODULE. ROTARY DISCONNECT SHOULD NOT BE INSTALLED ON THE POST, BLANK POST SHOULD BE USED IN PLACE. ALL PIPING AND WIRING BETWEEN INDOOR AND OUTDOOR UNITS BY OTHERS.
16. LOCKING CAPS FOR DOUBLE HEAT PUMP CONDENSER UNITS. CONSISTS OF 6 LOCKING CAPS, PART# NCP-4, AND 1 KEY, PART# NC-KEY.
17. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
18. 2 YEAR PARTS WARRANTY

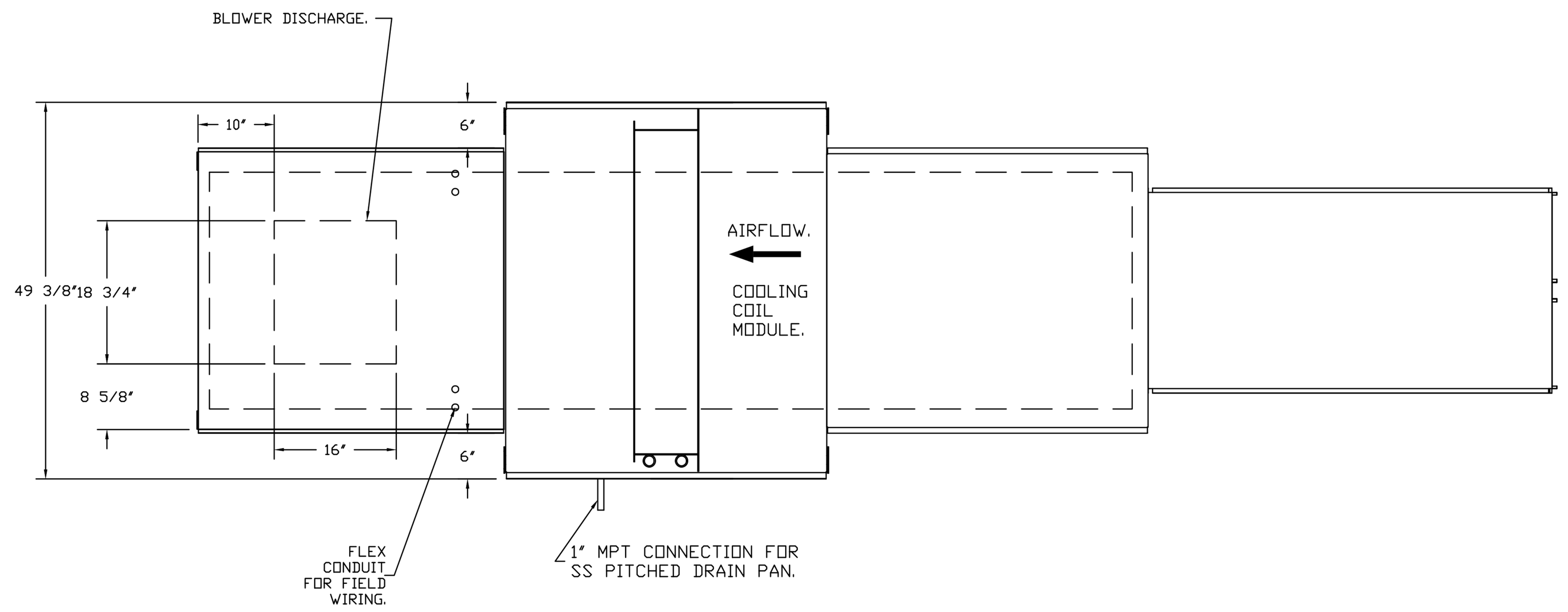
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".

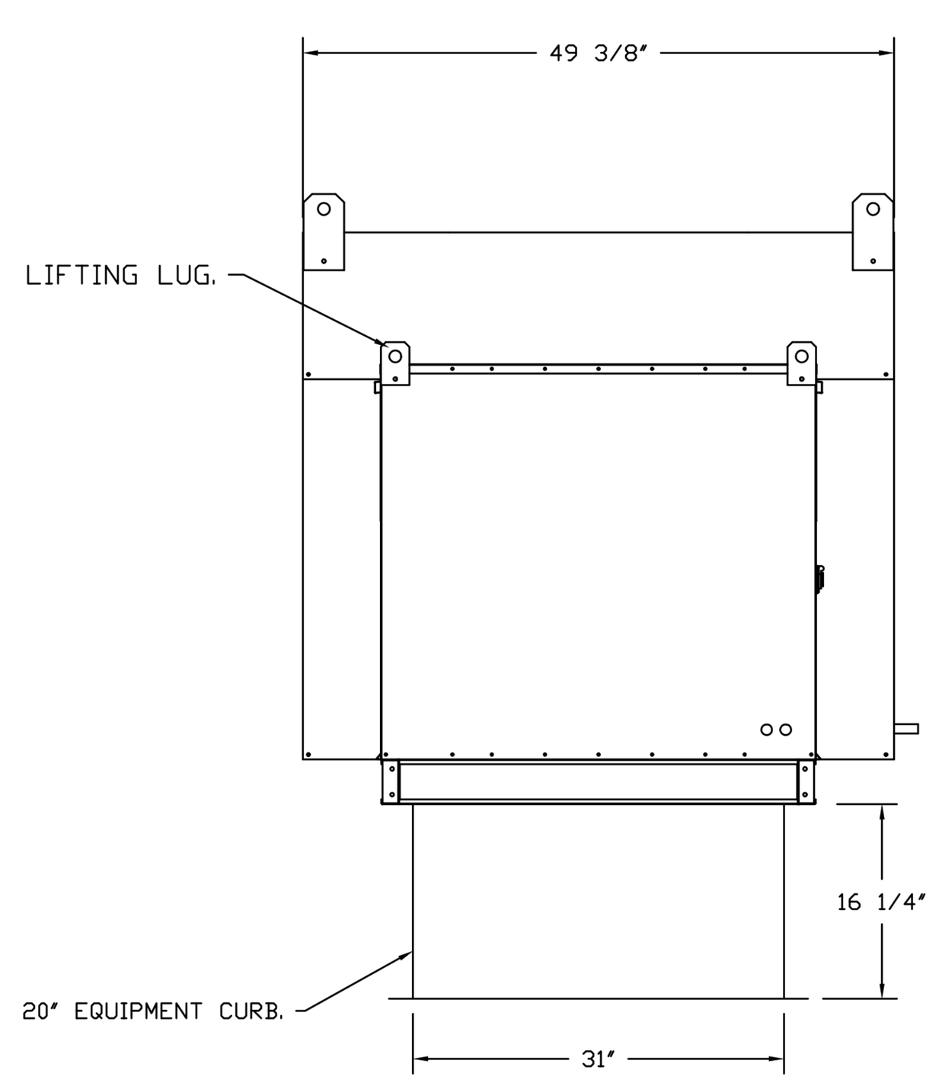
**NOTE: CONDENSERS SHIPPED LOOSE FOR REMOTE MOUNTING. ALL WIRING AND PIPING BETWEEN INDOOR AND OUTDOOR UNIT TO BE COMPLETED BY OTHERS.



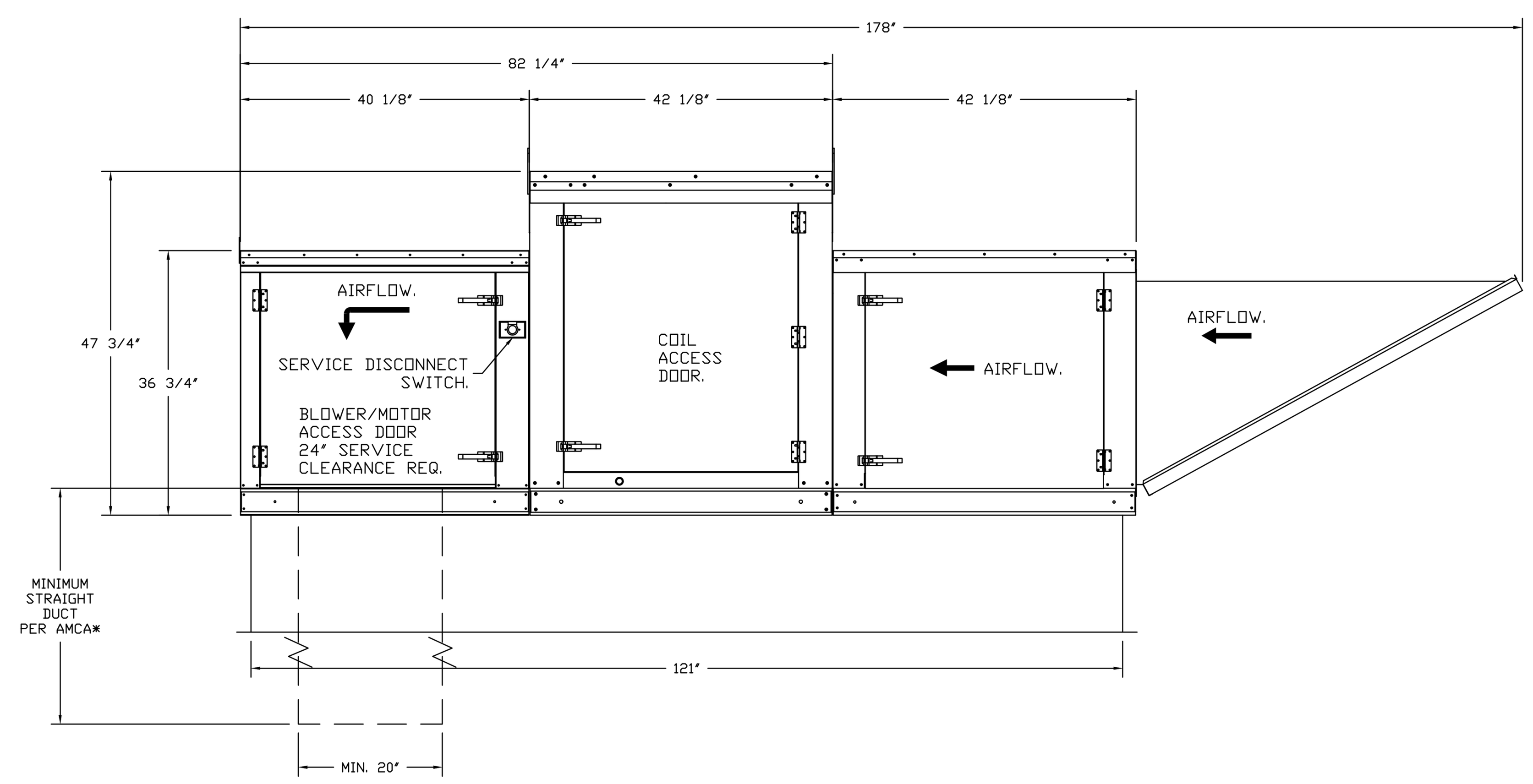
CONDENSER CLEARANCES

48" CLEARANCE REQUIRED ABOVE CONDENSERS.
(NOTE: **CONDENSERS SHOWN HERE ARE NOT DRAWN AT SCALE).

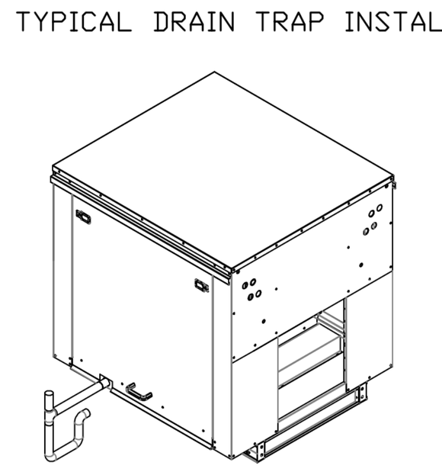




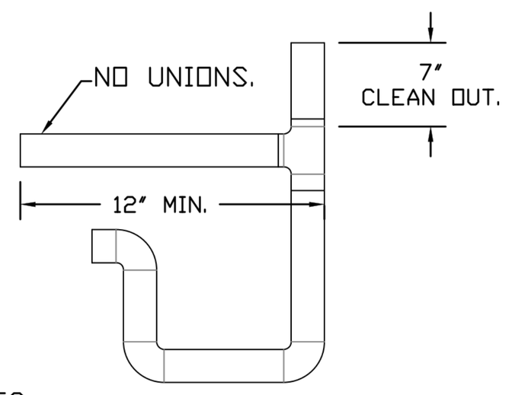
ROOF OPENING 2" SMALLER THAN CURB DIMENSION.



TYPICAL DRAIN TRAP INSTALL



RECOMMENDED COOLING COIL DRAIN TRAP CONFIGURATION.



NOTES:
1) 1" DIAMETER PVC PIPE ONLY.
2) USE ONLY LOW PROFILE COUPLINGS.
3) ADD CLEAN OUT AS SHOWN.

Miami-Dade NOA2

General Notes:

1. This approval is for the structual capacity and impact rating of the exterior housing only; it does not include any interior mechanisum or electrical part.
2. These fans have not been wind tested for Wind Driven Rain Test per Florida Building Code, TAS100 (A)-95.
3. Tested in accordance to Florida Building Code test portocol TAS201, TAS202, TAS203.
4. Tested for areas including high velocity hurricane zones.
5. Tested under Miami-Dade County Notification number ATI-08034.

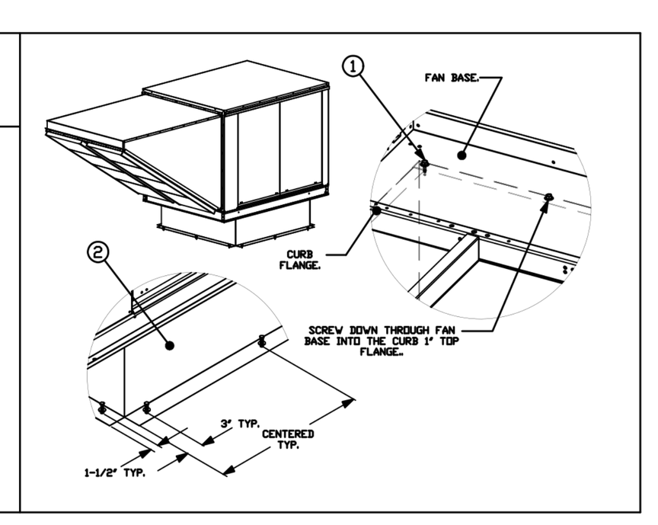
DESIGN PRESSURE: +30.0 / -130.0 PSF
LARGE MISSILE IMPACT RESISTANT

Miami-Dade - Steel Supply Fan - NOA2

Installation Instructions:

1. Secure the fan base to the top of the curb using a minimum of (12) 1/4"-14 x 1" self drilling screws (steel zinc plated) with a minimum spacing of 30" inches, secure through the fan base and into the curb.

2. Secure the curb to the roof framing members by drilling 1/4" pilot holes in the curb flanges at locations shown in the diagram and using a minimum of (12) 3/8" x 2" (minimum enbedment), zinc plated steel lag bolts and zinc plated washers, screw through curb flanges and into roof framing members with a maximum spacing 30".



REVISIONS

DESCRIPTION	DATE:

GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
WWW.GREASEMASTER.COM INFO@GREASEMASTER.COM

Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023
DWG.#: 5987236
DRAWN BY: dbreidt
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 9

OUTBACK STEAKHOUSE®

FOR REFERENCE ONLY

BLOOMIN' BRANDS
OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

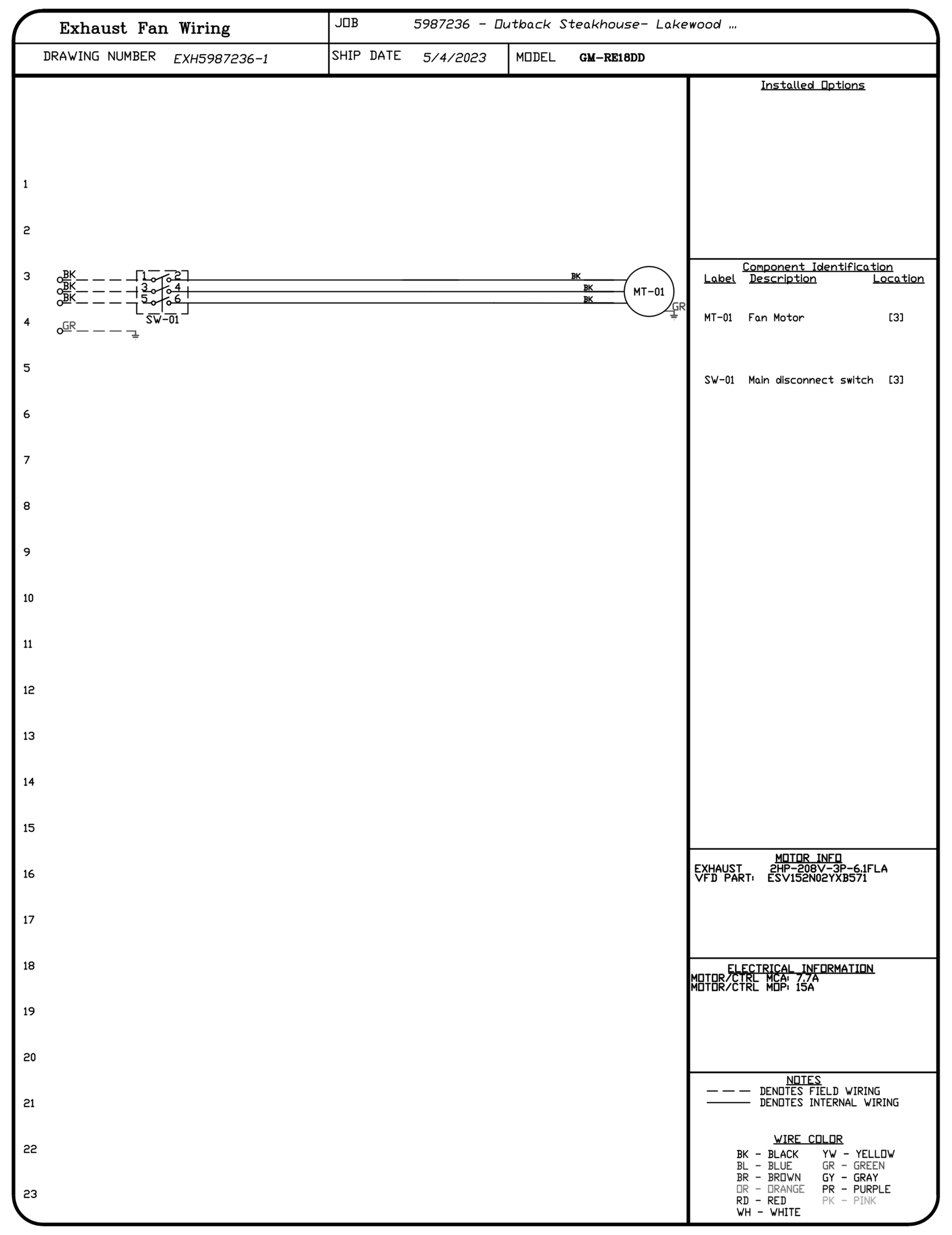
SHEET ISSUE:

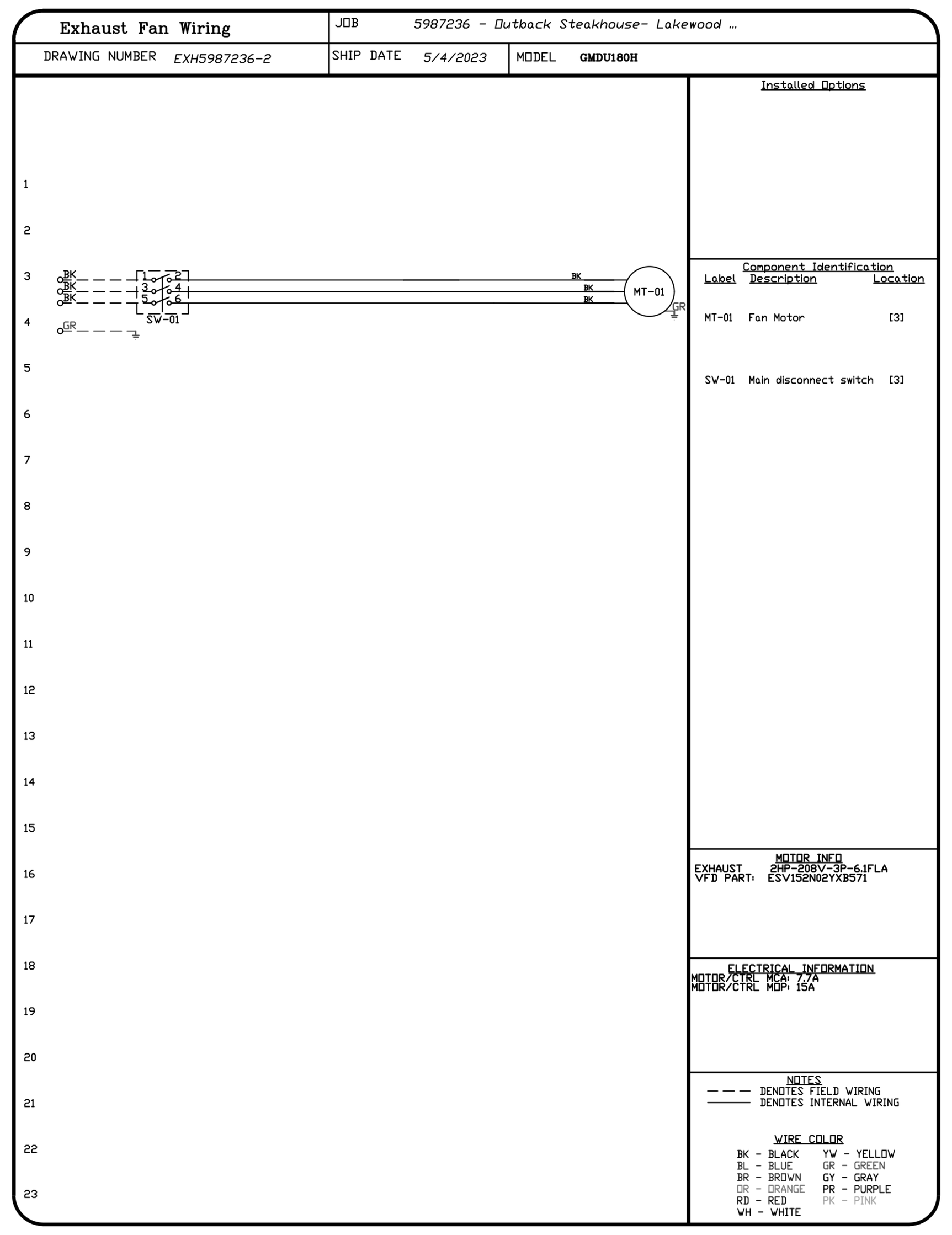
	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES

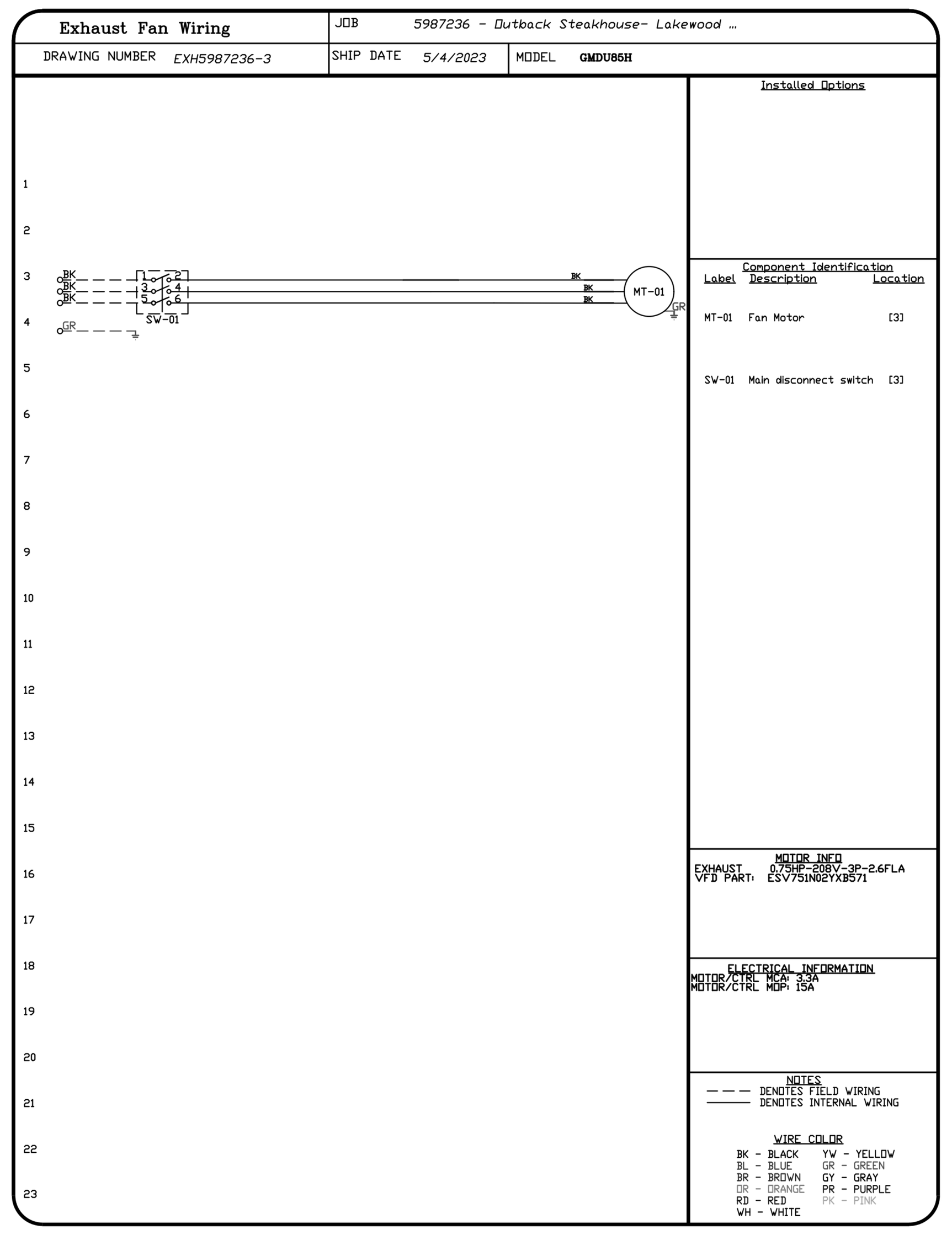
PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: TH

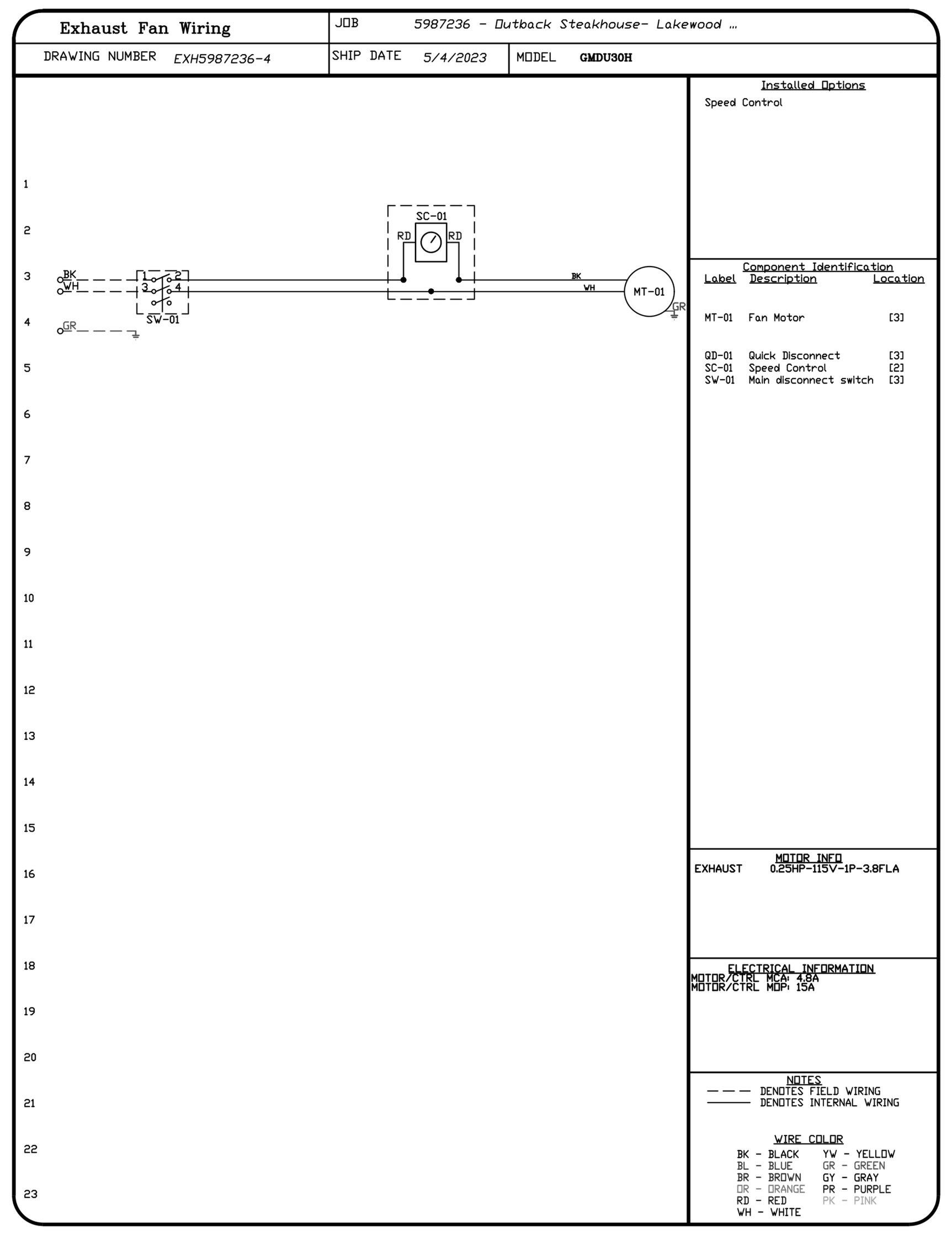
SHEET TITLE:
HOOD DETAILS

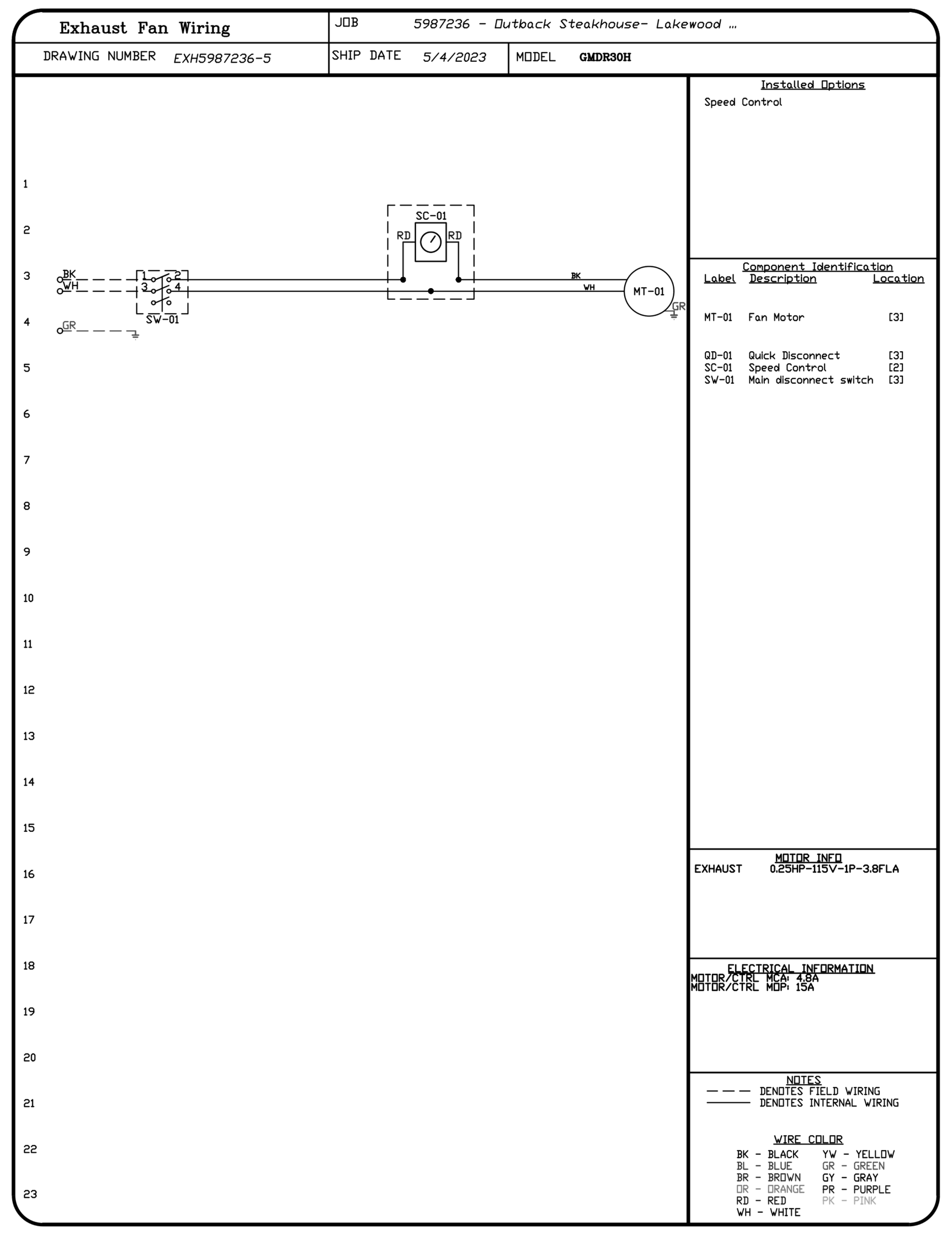
SHEET NO. MH109
PROJ. NO. 2023231.05

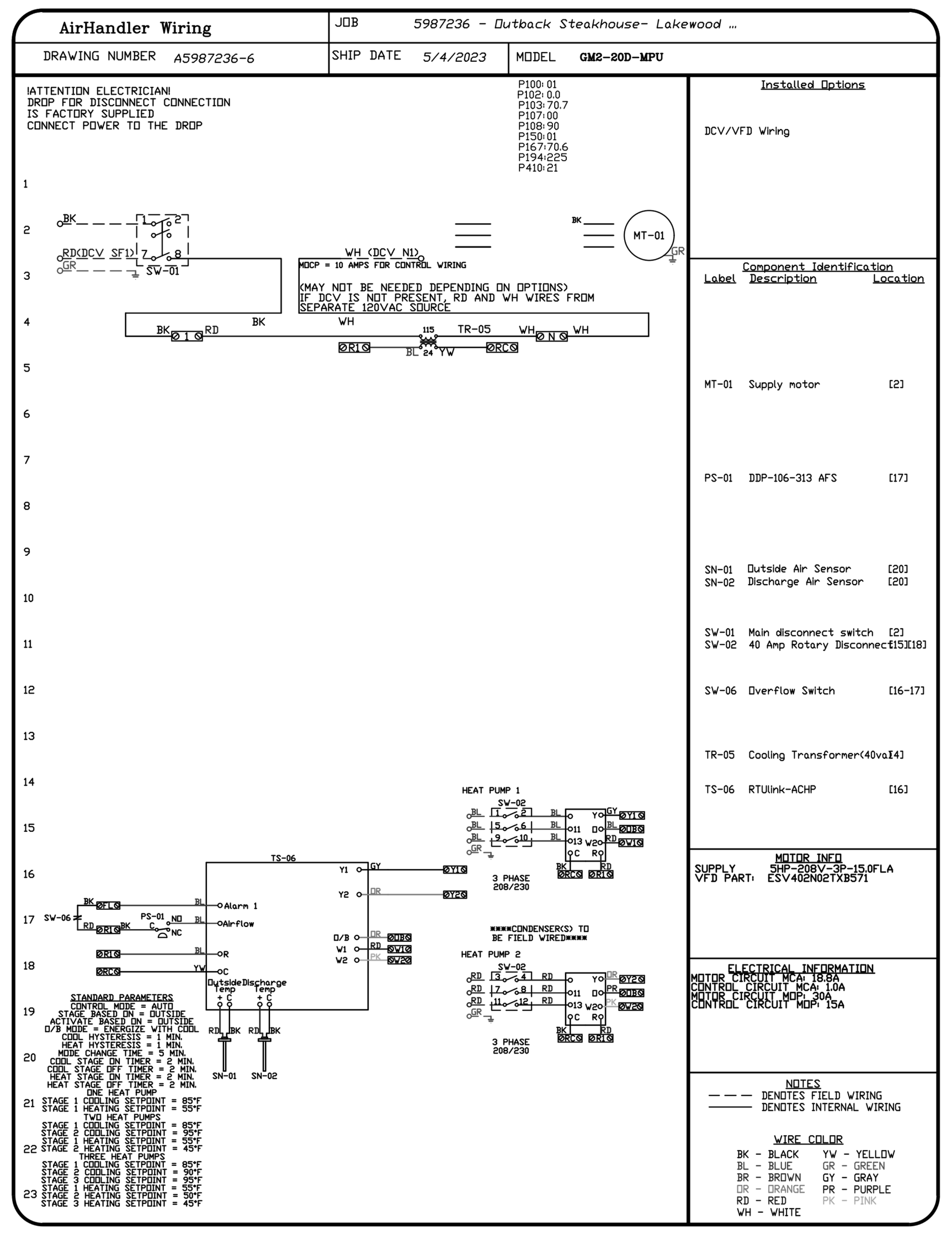












REVISIONS

	DESCRIPTION	DATE:
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△		
△		
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GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
WWW.GREASEMASTER.COM INFO@GREASEMASTER.COM

Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023

DWG.#: 5987236

DRAWN BY: dbreidt

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 10

OUTBACK STEAKHOUSE®

CONSULTANT LOGO

FOR REFERENCE ONLY

SEALS

BLOOMIN' BRANDS

OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE:	Approver
PROJECT ARCHITECT:	Checker
DRAWN BY:	Author

SHEET TITLE:
HOOD DETAILS

SHEET NO. PROJ. NO. 2023231.05

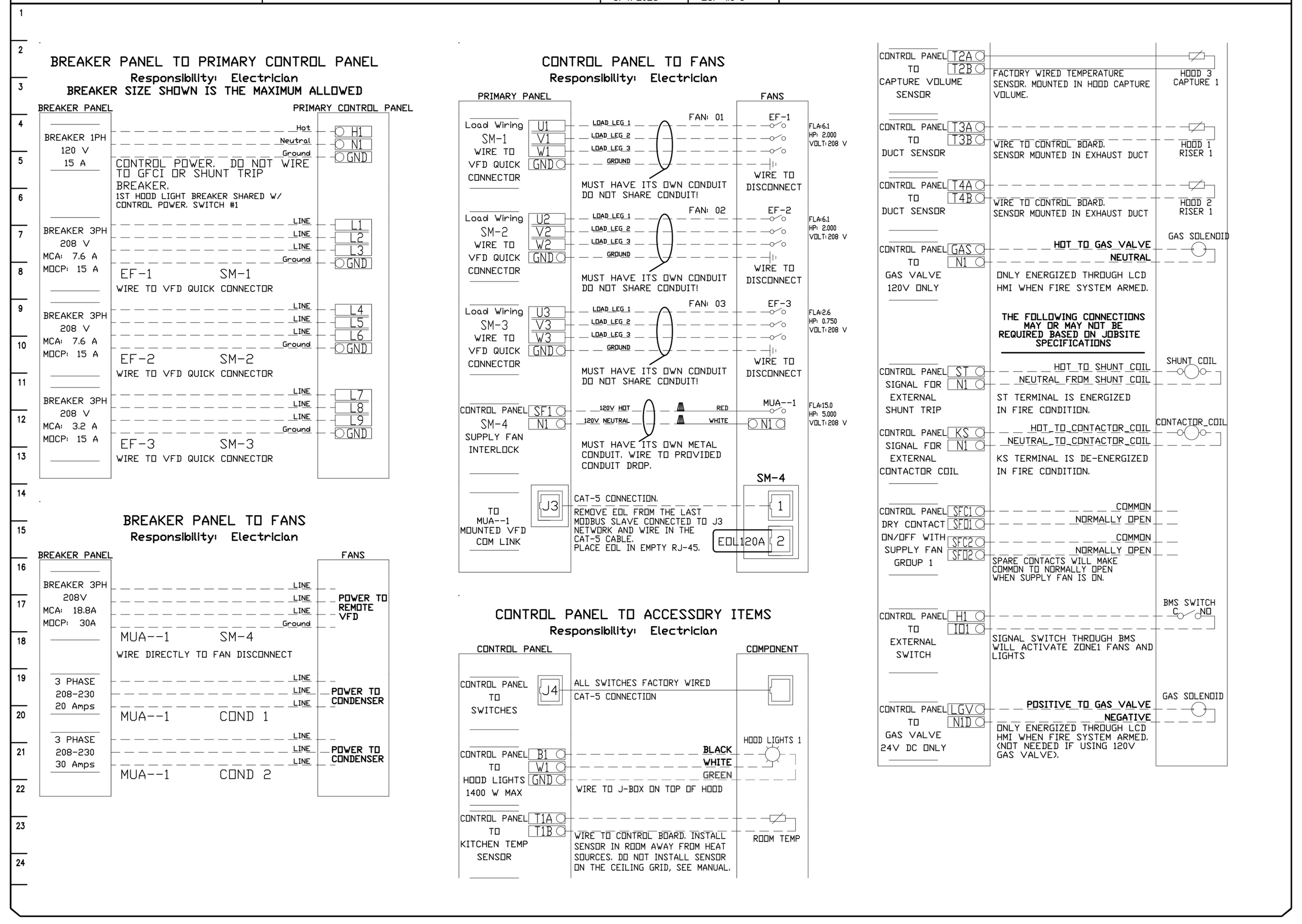
MH110

ELECTRICAL PACKAGE – JOB#5987236

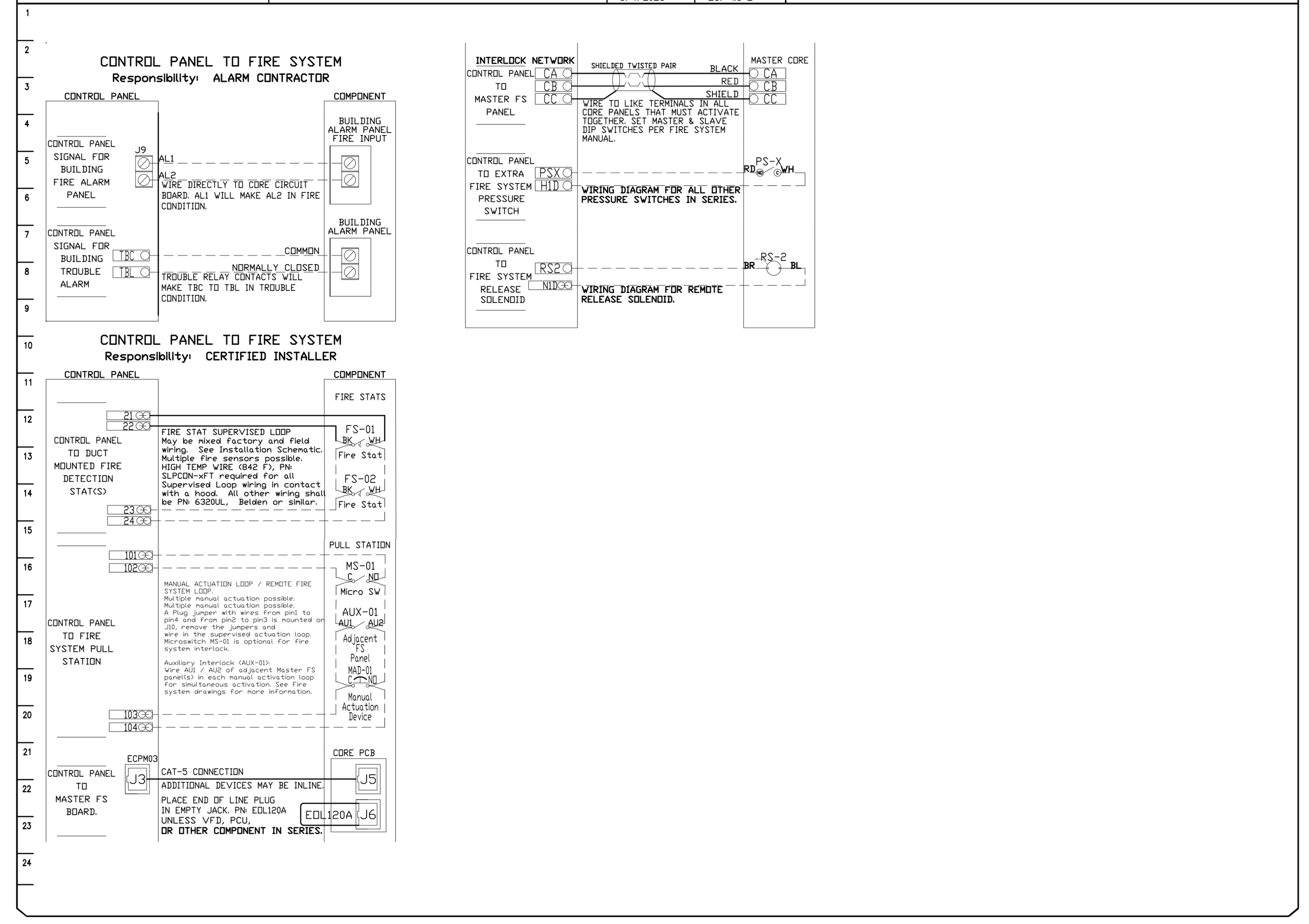
NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	ϕ	HP	VOLT	FLA
1		SC-331110MA	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	EF-1	EXHAUST	3	2.000	208	6.1
							EF-2	EXHAUST	3	2.000	208	6.1
				HOOD # 3	1 FAN		EF-3	EXHAUST	3	0.750	208	2.6
							MUA-1	SUPPLY	3	5.000	208	15.0

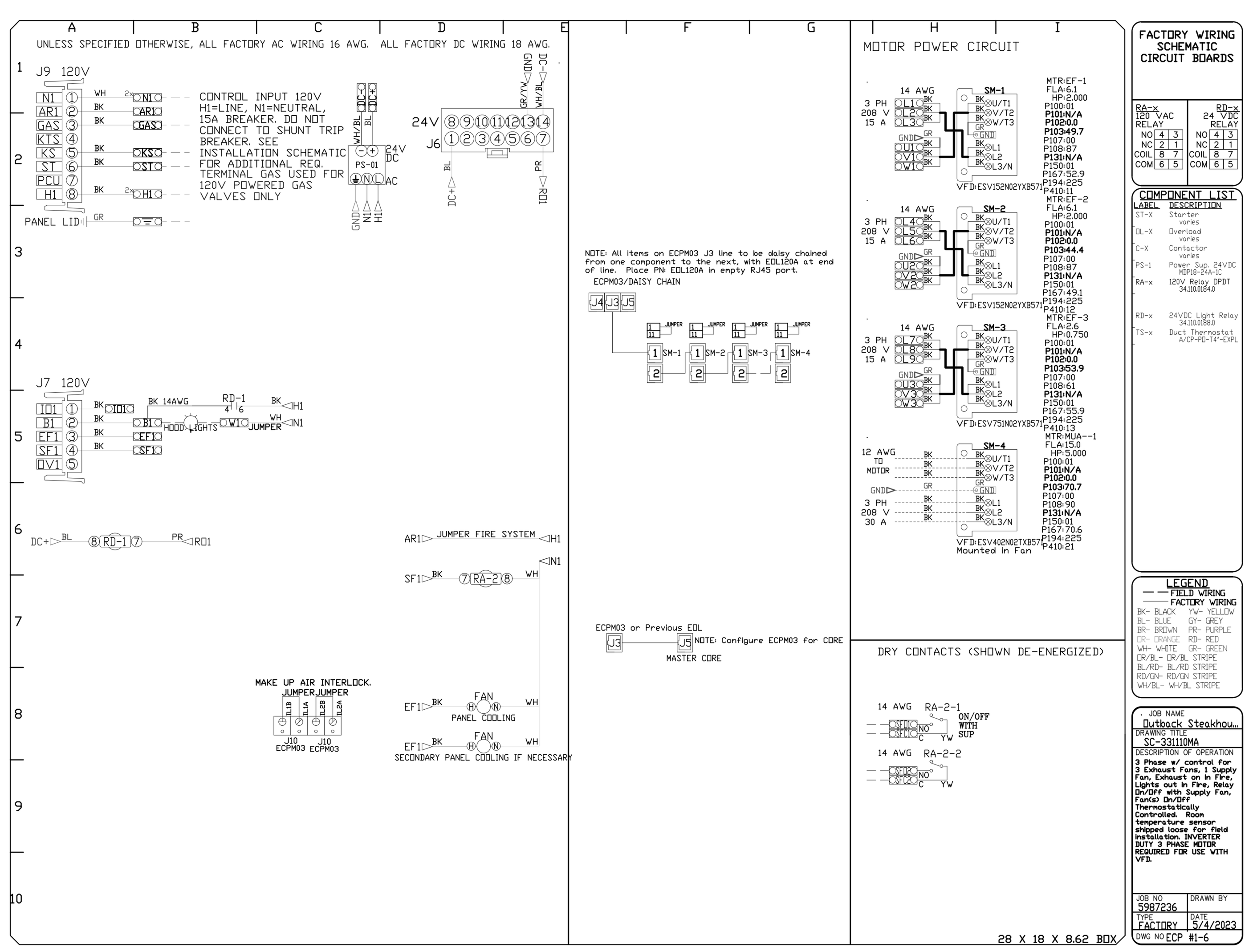
JOB NO 5987236 — MODEL NUMBER SC-331110MA — JOB NAME Outback Steakhouse- Lakewood ... — DATE 5/4/2023 — SCHEMATIC TYPE INSTALL — DWG NO ECP #1-1

DESCRIPTION OF OPERATION: 3 Phase w/ control for 3 Exhaust Fans, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.



JOB NO 5987236 — MODEL NUMBER SC-331110MA — JOB NAME Outback Steakhouse- Lakewood ... — DATE 5/4/2023 — SCHEMATIC TYPE INSTALL — DWG NO ECP #1-2





REVISIONS

	DESCRIPTION	DATE
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Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023
DWG.#: 5987236
DRAWN BY: dbreidt
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 11

OUTBACK STEAKHOUSE®

CONSULTANT LOGO

FOR REFERENCE ONLY

SEALS

BLOOMIN' BRANDS

OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

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PRINCIPAL IN CHARGE: Approver
PROJECT ARCHITECT: Checker
DRAWN BY: Author

SHEET TITLE:
HOOD DETAILS

SHEET NO. MH111
PROJ. NO. 2023231.05

JOB NO 5987236	MODEL NUMBER SC-331110MA	DRAWN BY	SCHEMATIC TYPE INSTALL	DESCRIPTION OF OPERATION: Fire System #1 TANK FS - 4.0/4.0 / Remote - 4.0/4.0.
	JOB NAME Outback Steakhouse- Lakewood ...	DATE 5/4/2023	DWG NO ECP #1-3	

TANK PROTECTION ELECTRICAL DETAIL

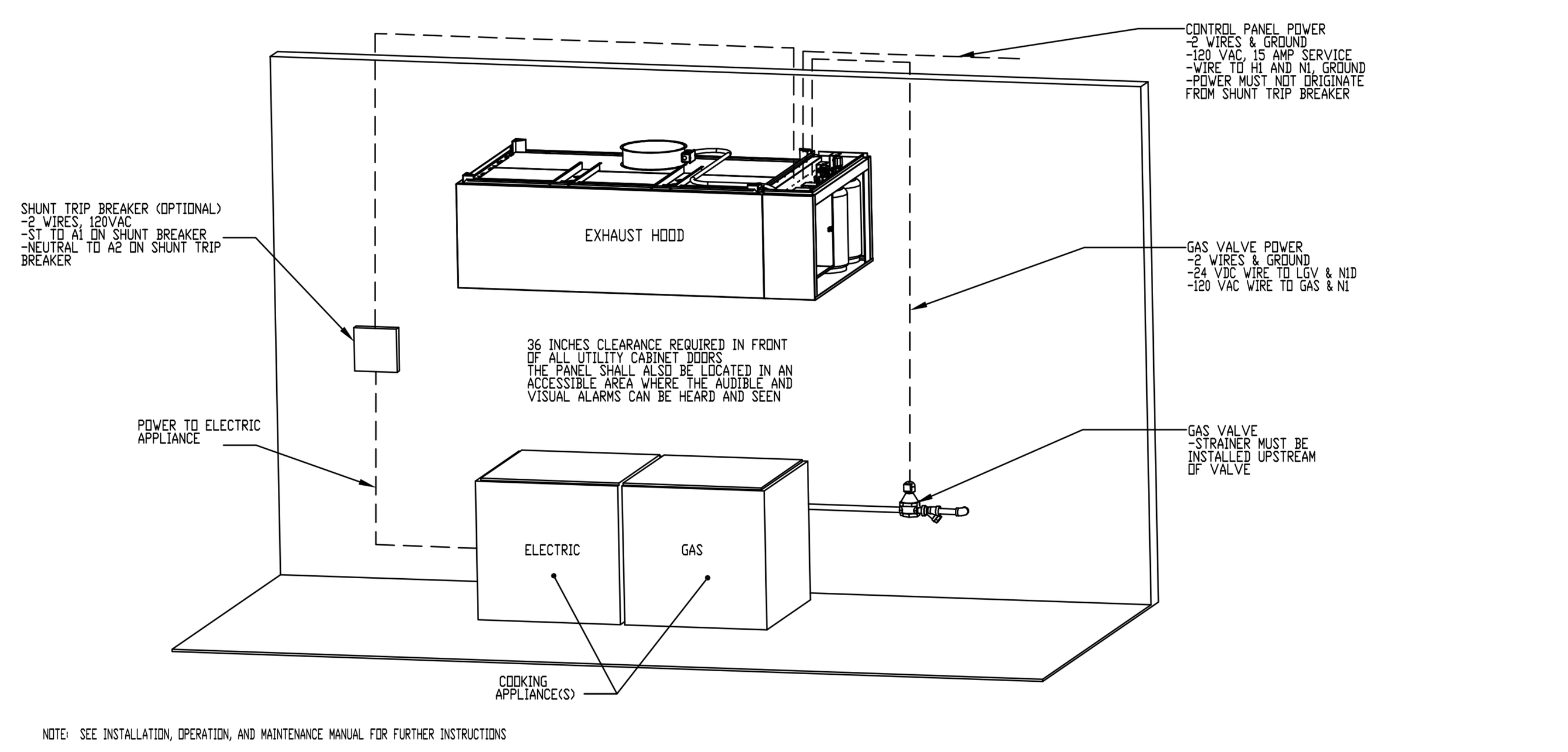
02/10/2021 Rev. 2

FS-1: MASTER

ELECTRICIAN:
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT

ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N1D (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N1D TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO 5987236	MODEL NUMBER SC-331110MA	DRAWN BY	SCHEMATIC TYPE INSTALL	DESCRIPTION OF OPERATION: Fire System #1 TANK FS - 4.0/4.0 / Remote - 4.0/4.0.
	JOB NAME Outback Steakhouse- Lakewood ...	DATE 5/4/2023	DWG NO ECP #1-4	

TANK PROTECTION LOW-VOLTAGE DETAIL

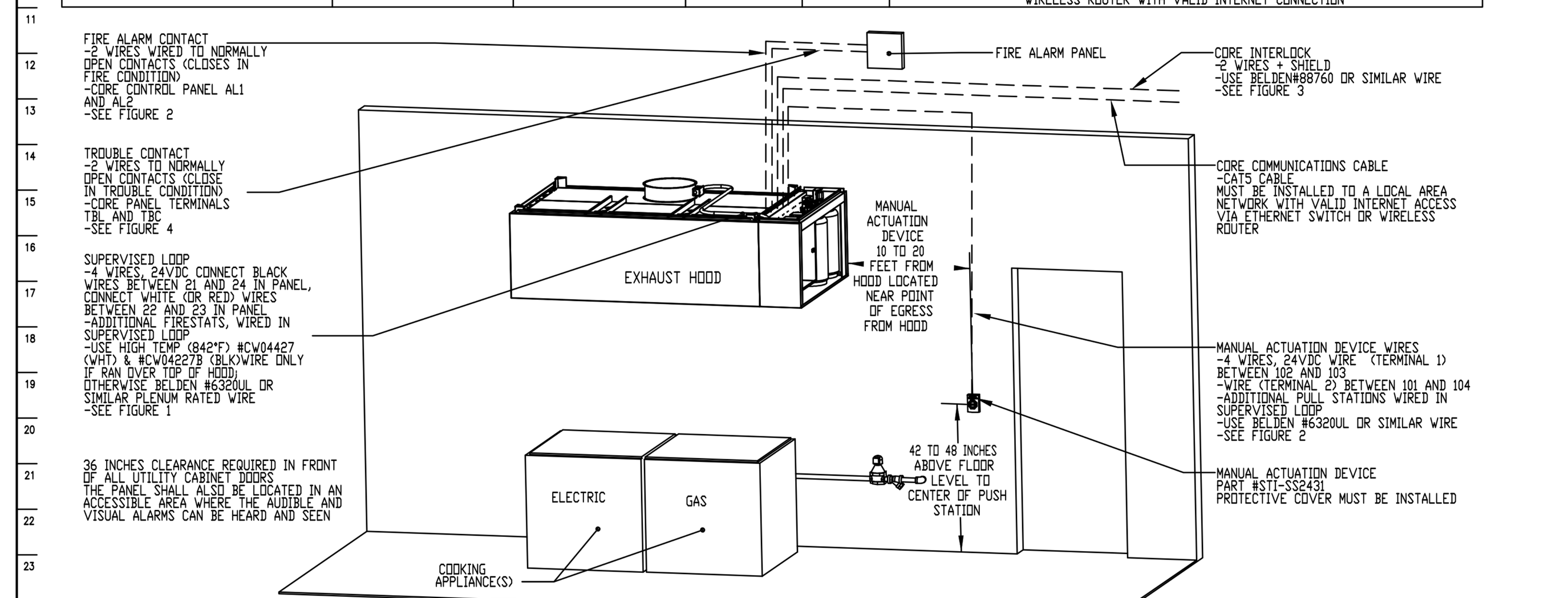
02/10/2021 Rev. 2

FS-1: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT

ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION STI-6531B
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) #CW04427 (WHT) & #CW04427B (BLK)WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD; OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE; SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA. CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB. CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TOK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

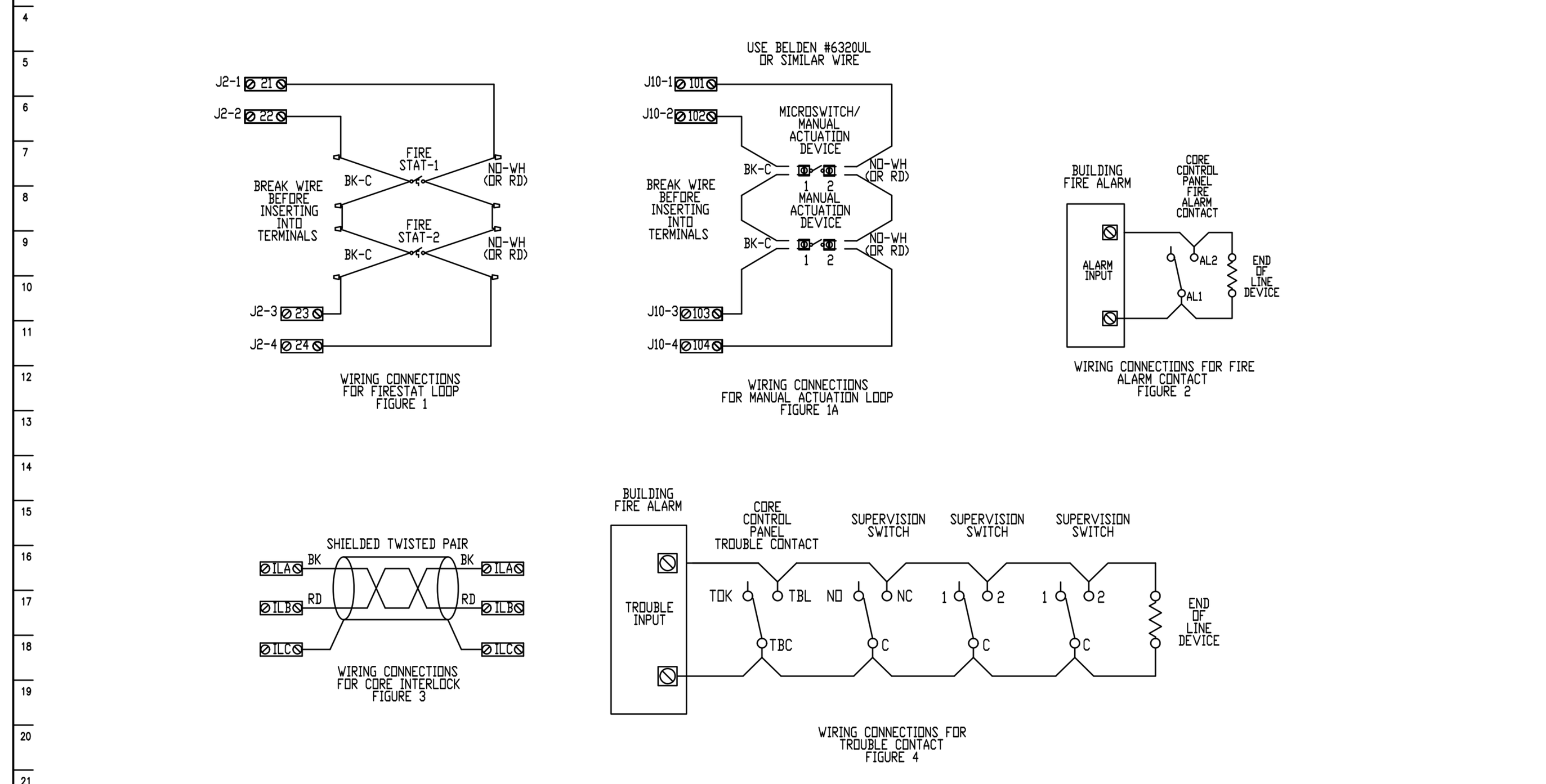
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO 5987236	MODEL NUMBER SC-331110MA	DRAWN BY	SCHEMATIC TYPE INSTALL	DESCRIPTION OF OPERATION: Fire System #1 TANK FS - 4.0/4.0 / Remote - 4.0/4.0.
	JOB NAME Outback Steakhouse- Lakewood ...	DATE 5/4/2023	DWG NO ECP #1-5	

TANK PROTECTION LOW-VOLTAGE FIGURES

02/10/2021 Rev. 17

FS-1: MASTER



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

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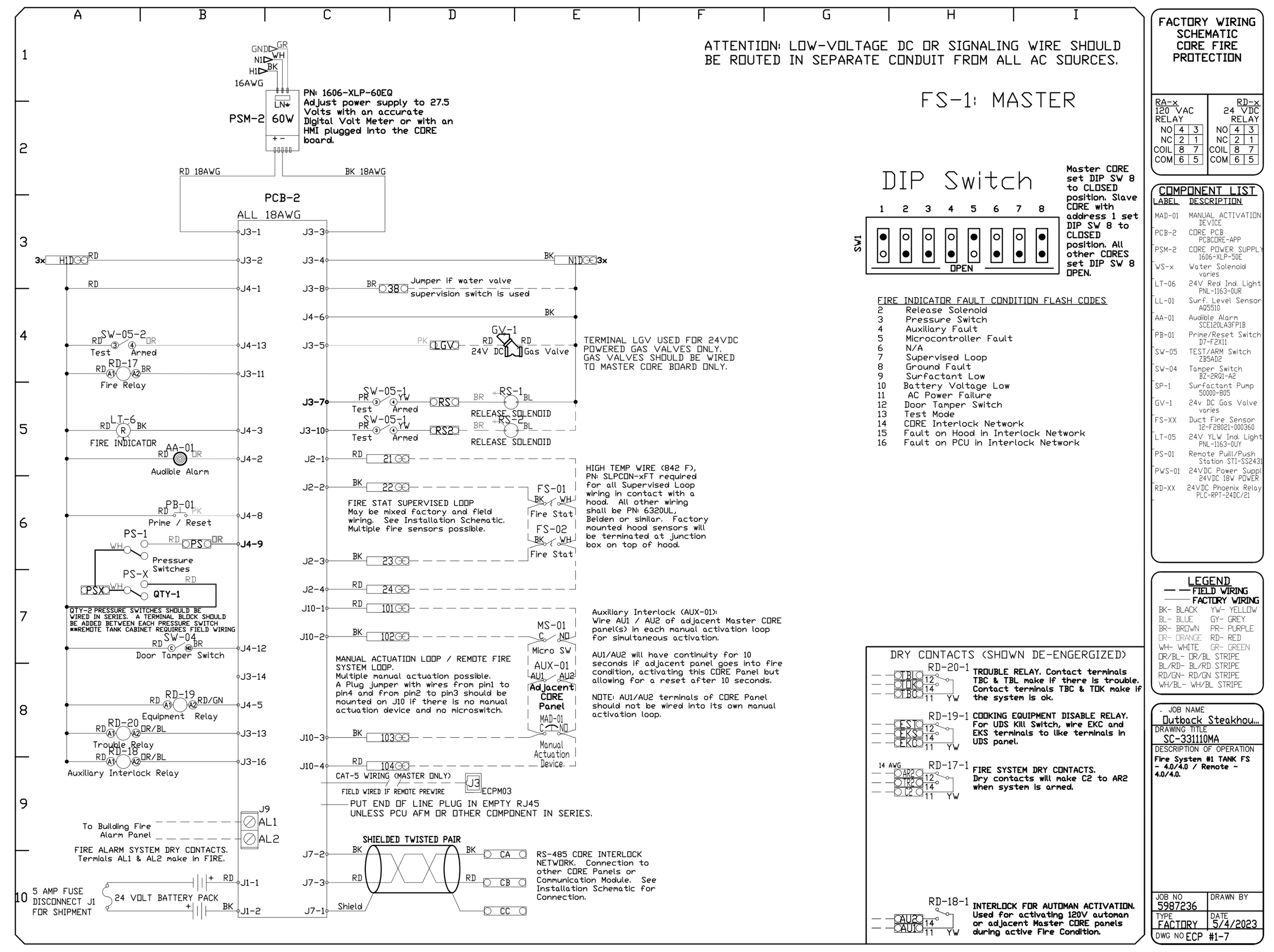
FS-1: MASTER



FACTORY WIRING SCHEMATIC CORE FIRE PROTECTION

REVISIONS

	DESCRIPTION	DATE

GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
WWW.GREASEMASTER.COM INFO@GREASEMASTER.COM

Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023

DWG.#: 5987236

DRAWN BY: dbreidt

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 12

OUTBACK STEAKHOUSE®

FOR REFERENCE ONLY

BLOOMIN' BRANDS

OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

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3	03/22/2024	PROTOTYPE UPDATES

PRINCIPAL IN CHARGE: Approver
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DRAWN BY: Author

SHEET TITLE:
HOOD DETAILS

SHEET NO. PROJ. NO. 2023231.05

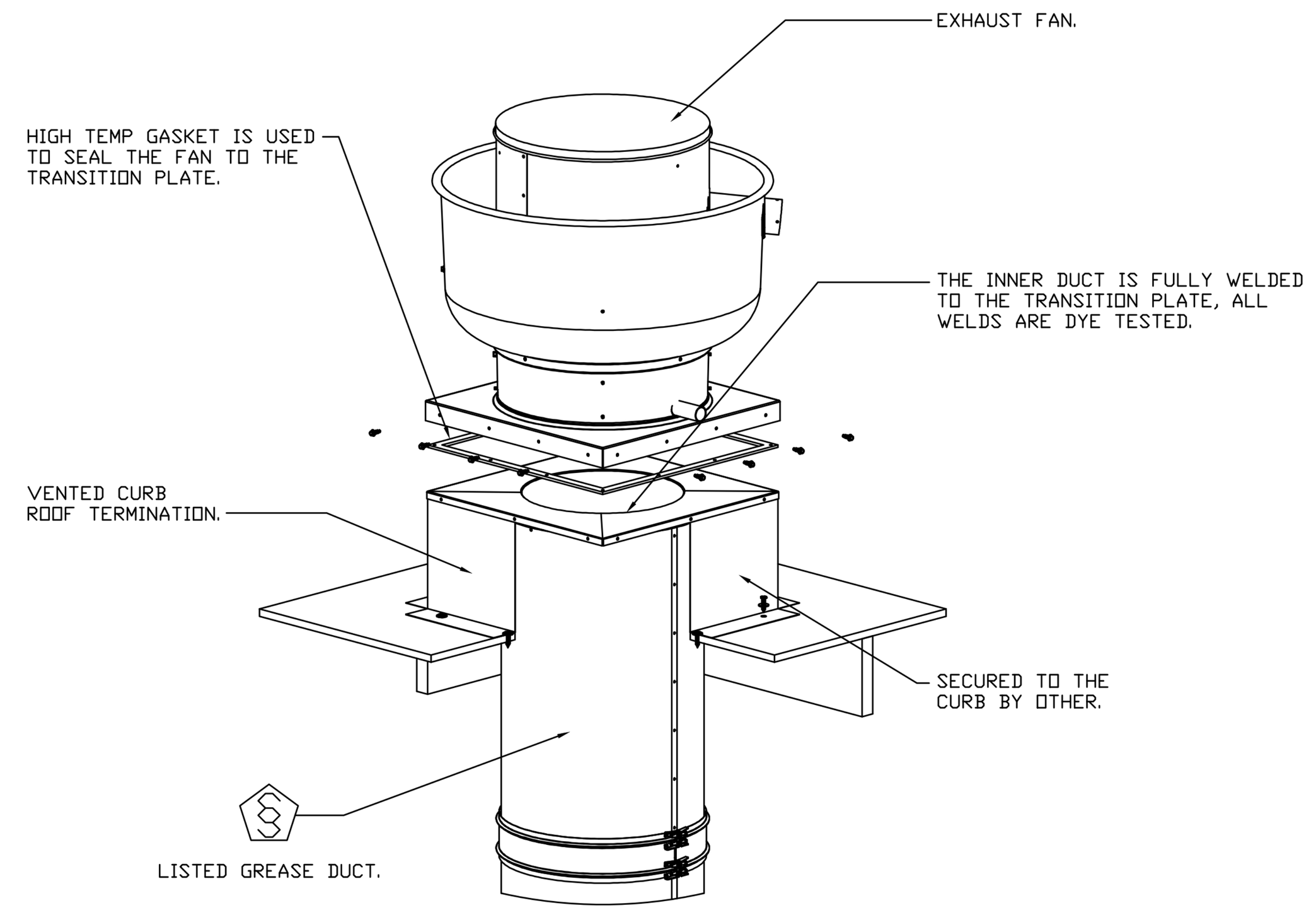
MH112

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO GREASEMASTER MODEL "GDW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "GDW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "GDW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "GDW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO GREASEMASTER MODEL "GDW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE ____________________
YOUR TITLE ____________________ DATE __________



NOTE:
DUCT NOTES FOR REFERENCE, DUCT TO BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

REVISIONS

DESCRIPTION	DATE:

GREASE MASTER™
608 MATTHEWS-MINT HILL RD, STE 105, MATTHEWS, NC 28105
TELEPHONE 704-844-6907 FAX 704-844-8013
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Outback Steakhouse- Lakewood Ranch, FL
Bradenton, FL, 34202

DATE: 5/4/2023
DWG.#: 5987236
DRAWN BY: dbreidt
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 13

OUTBACK STEAKHOUSE®

FOR REFERENCE ONLY

BLOOMIN' BRANDS
OUTBACK STEAKHOUSE
12245 SR 70 E
LAKEWOOD RANCH, FL 34202

SHEET ISSUE:

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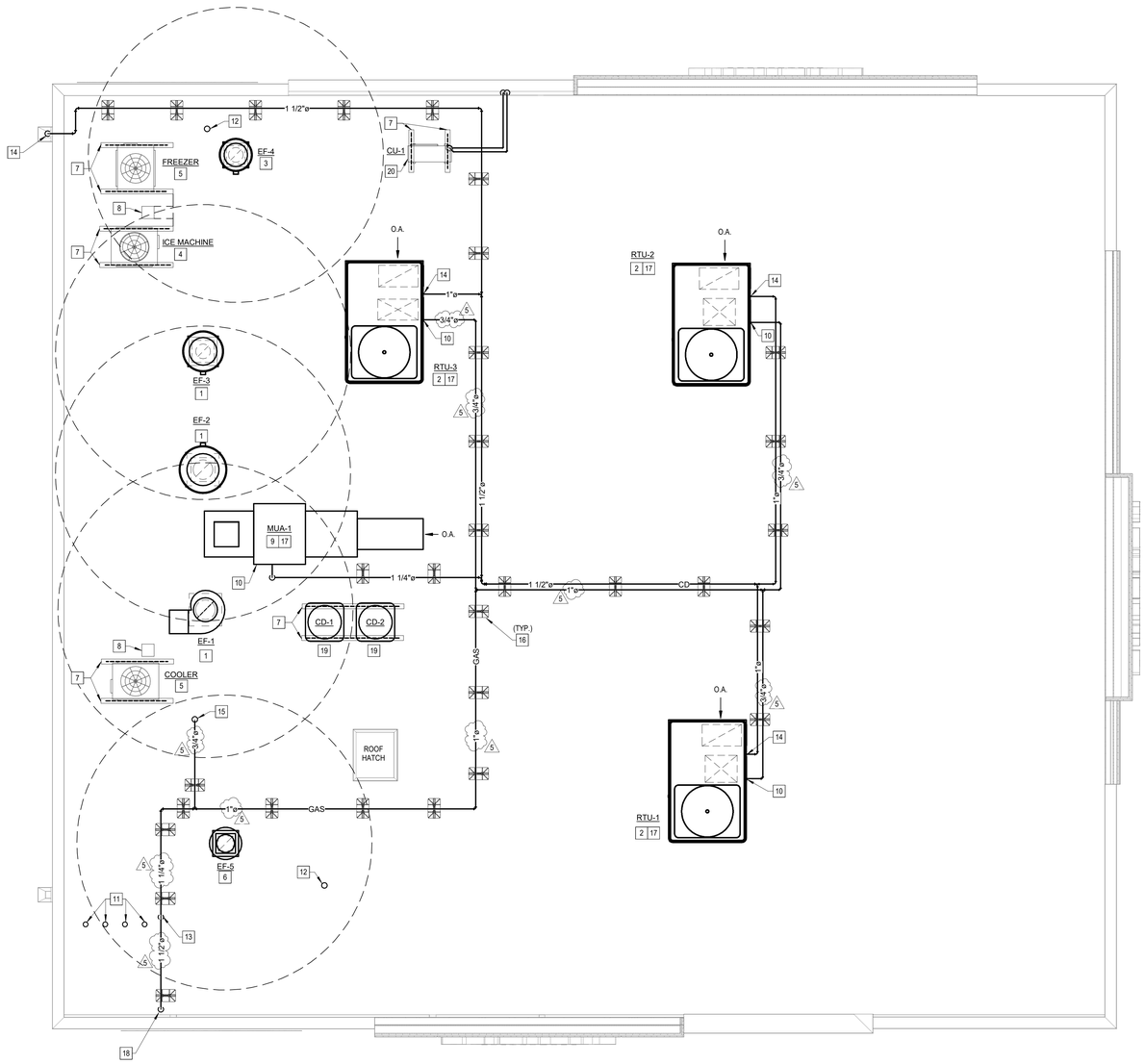
PRINCIPAL IN CHARGE: Approver
PROJECT ARCHITECT: Checker
DRAWN BY: Author

SHEET TITLE:
HOOD DETAILS

SHEET NO. PROJ. NO. 2023231.05
MH113



1 MP200 **MECHANICAL AND PLUMBING ROOF PLAN**
1/4" = 1'-0"

PROJECT NORTH

SHEET KEYNOTES

1. TYPE I GREASE EXHAUST FAN. REFER TO HOOD PLANS AND MECHANICAL PLAN FOR ADDITIONAL INFORMATION. PROVIDE CODE COMPLIANT DUCTWORK AND CLEARANCES. COORDINATE FLASHING AND WEATHERPROOFING WITH GC, COORDINATE EXACT LOCATION WITH GC AND STRUCTURE.
2. ROOFTOP UNIT. REFER TO SCHEDULES AND MECHANICAL PLAN FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH STRUCTURE.
3. DISHWASHER EXHAUST FAN. INTERLOCK WITH DISHWASHER CONTROLS. REFER TO HOOD PLANS AND MECHANICAL PLAN FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH STRUCTURE.
4. CONDENSING UNIT FOR ICE MACHINE, FURNISHED BY KITCHEN EQUIPMENT SUPPLIER, INSTALLED BY MC.
5. CONDENSING UNITS FOR WALK-IN BOX, FURNISHED BY KITCHEN EQUIPMENT SUPPLIER INSTALLED BY MC.
6. EXHAUST FAN FOR PUBLIC RESTROOM. REFER TO SCHEDULES AND MECHANICAL PLAN FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH STRUCTURE.
7. PRE-ENGINEERED ROOF STANDS FOR REFRIGERATION UNIT. REFERENCE SEPERATE NOA DOCUMENTATION FOR SPECIFICATIONS AND INSTALLATION DETAILS.
8. GANGED REFRIGERANT LINES AND CONDUIT FROM WALK-IN UNITS THROUGH ROOF. REFER TO ARCHITECTURAL AND FOODSERVICE PLANS.
9. MAKE-UP AIR UNIT. UNIT FURNISHED WITH THE HOOD EXHAUST FANS AND INSTALLED BY THE MECH. CONTRACTOR.
10. ROUTE GAS PIPING ALONG ROOF AND CONNECT TO MECHANCIAL EQUIPMENT, CONTRACTOR SHALL PROVIDE 6" DIRT LEG, GAS SHUT-OFF VAVLE AND UNION PRIOR TO FINAL CONNECTION.
11. WATER HEATER CONCENTRIC VENTS THRU ROOF. OFFSETS UNDER ROOF SHOWN ON THIS PLAN FOR CLARITY. REFER ALSO TO P-102. OFFSET UNDER ROOF 24" (MIN.) FROM PARAPET AND TERMINATE 24" (MIN.) ABOVE THE TOP OF THE PARAPET. TERMINATE WITH MFR APPROVED CAP. TYPICAL.
12. TERMINATE VENT THROUGH ROOF (VTR) 12" MIN. ABOVE TOP OF PARAPET, UNLESS PREVAILING CODE STATES OTHERWISE. SUPPORT AS REQUIRED. BY P.C.
13. GAS PIPING DOWN THROUGH ROOF TO WATER HEATERS. REFER TO SHEET P102 FOR CONTINUATION.
14. ROUTE CONDENSATE DRAIN TO NEAREST ROOF DRAIN. ENSURE THAT NO PART OF PIPING, INCLUDING SUPPORTS, INTERFERES WITH ROOF OR OVERFLOW SCUPPERS AND ROOF DRAINAGE.
15. GAS PIPING DOWN THROUGH ROOF TO KITCHEN EQUIPMENT BELOW. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
16. CONDENSATE SUPPORT, REFER TO DETAIL ON SHEET P302. (TYPICAL).
17. REFER TO SHEET M301 FOR SCHEDULES AND MECHANICAL EQUIPMENT & FOR WEIGHTS. REFER TO HOOD DRAWINGS FOR EXHAUST FANS AND MAKE-UP AIR UNIT WEIGHTS.
18. GAS PIPING UP THROUGH ROOF UTILIZING PATE PIPE CURB AND PIPE ACROSS ROOF.
19. CONDENSING UNIT FOR MAKE UP AIR UNIT MUA-1. REFER TO HOOD DRAWINGS FOR ADDITIONAL INFORMATION. ROUTE REFRIGERANT LINES ALONG ROOF, PROVIDE SUPPORTS AS REQUIRED.
20. CONDENSING UNIT MOUNTED ON ROOF. EXTEND RS AND RL PIPING TO CONDENSING UNIT AND CONNECT AS REQUIRED. TYP.

NOTE:
REFER TO SHEET P203
FOR GAS PIPE SIZES

MP GENERAL NOTES

1. THE TERM "CONTRACTOR" IS USED TO LAY OUT THE GENERAL CONTRACTOR'S (GC) ULTIMATE RESPONSIBILITIES. THE GC SHALL BE RESPONSIBLE FOR ALL WORK AND FOR COORDINATING THE WORK AND RESPONSIBILITIES OF MECHANICAL, ELECTRICAL, PLUMBING, FIRE, AND OTHER SUB-CONTRACTORS. CONTRACTOR SHALL ALSO COORDINATE WORK WITH THE OWNER'S CONSTRUCTION MANAGER OR REPRESENTATIVE AND WITH VENDORS SUPPLYING EQUIPMENT.
2. CONTRACTOR AND ALL SUB-CONTRACTORS SHALL BE FULLY LICENSED WITH STATE AND MUNICIPALITY WHERE REQUIRED AND SHALL BE EXPERIENCED IN ALL AREAS OF THEIR WORK. CONTRACTORS SHALL BE FAMILIAR WITH LOCAL CODES AND REQUIREMENTS AFFECTING THEIR WORK.
3. ALL WORK SHALL BE COMPLETE. FULLY FUNCTIONAL, AND COMPLY WITH ALL NATIONAL, STATE, AND LOCAL CODES. THE INTERNATIONAL ENERGY CONSERVATION CODE, AND WITH THE AUTHORITIES HAVING JURISDICTION (A.H.J.). APPLY TO THE ARCHITECT FOR A COPY OF RELEVANT SECTIONS OF THE BELOW CODES AND STANDARDS IF REQUIRED. ANY WORK IN VIOLATION OF THE BELOW CODES SHALL BE CORRECTED BY THE CONTRACTOR AT NO COST TO THE OWNER. COMPLY WITH THE MOST CURRENT STANDARDS OF THE CODES LISTED ON COVER SHEET AND THE FOLLOWING:
   A. 2017 ICC/A1171. ANSI STANDARDS FOR ACCESSIBLE DESIGN
   B. NFPA 13 - INSTALLATION OF SPRINKLER SYSTEMS
   C. NFPA 54 - NATIONAL FUEL GAS CODE
   D. NFPA 72 - NATIONAL FIRE ALARM CODE
   E. NFPA 96 - VENTILATION CONTROL AND FIRE PROTECTION OF COMMERCIAL COOKING OPERATIONS
   F. NFPA 101 - LIFE SAFETY CODE
   G. LOCAL HEALTH DEPARTMENT
   H. STATE FIRE MARSHAL
   I. OSHA CODE - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
4. MATERIALS, EQUIPMENT, APPLIANCES, AND INSTALLATION METHODS SHALL CONFORM TO THE LATEST STANDARDS OF:
   A. AGA - AMERICAN GAS ASSOCIATION
   B. AMCA - AIR MOVING AND CONDITIONING ASSOCIATION
   C. ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE
   D. ADA - AMERICANS WITH DISABILITIES ACT
   E. ARI - AIR CONDITIONING AND REFRIGERATION INSTITUTE
   F. ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
   G. ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS
   H. ASSE - AMERICAN SOCIETY OF SAFETY ENGINEERS
   I. ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
   J. AWWA - AMERICAN WATER WORKS ASSOCIATION
   K. CBMA - CERTIFIED BALLAST MANUFACTURERS ASSOCIATION
   L. ETL - ENVIRONMENTAL TESTING LABORATORY
   M. FM - FACTORY MUTUAL
   N. IEEE - INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
   O. IES - ILLUMINATING ENGINEERING SOCIETY
   P. IPCEA - INSULATED POWER CABLE ENGINEERS ASSOCIATION
   Q. MSS - MANUFACTURERS STANDARDIZATION SOCIETY
   R. NBBPVI - NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS
   S. NECA - NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
   T. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
   U. NSF - NATIONAL SANITATION FOUNDATION
   V. PDI - PLUMBING AND DRAINAGE INSTITUTE
   W. SMACNA - SHEET METAL & A/C CONTRACTORS' NATIONAL ASSOCIATION
   X. UL - UNDERWRITERS LABORATORIES INC.
5. MATERIALS AND EQUIPMENT SHALL BE NEW, FREE FROM DEFECT, AND BEAR UNDERWRITER'S LABORATORIES (U.L.) LABEL OR OTHER NATIONALLY RECOGNIZED TESTING AGENCY WHERE SUCH STANDARDS HAVE BEEN ESTABLISHED. PROVIDE COMPLETE WITH ALL TRIM AND OPTIONS REQUIRED FOR PROPER OPERATION, UNLESS NOTED OTHERWISE.
6. ALL INFORMATION INDICATED ON THESE DRAWINGS HAS BEEN OBTAINED FROM EXISTING PLANS, REPORTS, AND PHOTOS FROM OTHERS, AND/OR FROM SITE SURVEYS. THE CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL WORK SHOWN ON THESE DRAWINGS WITH EXISTING CONDITIONS, PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT AND MATERIAL.
7. THESE PLANS AND SPECIFICATIONS ARE SCHEMATIC AND DIAGRAMMATIC IN NATURE AND DO NOT SHOW ALL DETAILS, DEVICES, AND METHODS OF CONSTRUCTION REQUIRED IN ORDER TO ACHIEVE A FIRST CLASS, WORKMANLIKE, CODE COMPLIANT RESULT. DO NOT SCALE PLANS.
8. ALL OVERHEAD UTILITIES INCLUDING BUT NOT LIMITED TO CONDUIT, SPRINKLER PIPE, ROOF DRAINS ARE TO BE RAN PARALLEL OR PERPENDICULAR TO STRUCTURE AT ALL OPEN CEILING AREAS.
9. PRIOR TO SUBMITTING A FINAL BID, CONTRACTORS WILL CONFIRM THAT THE CONTRACTOR HAS COMPLIED WITH THE BELOW REQUIREMENTS. NO EXTRAS WILL BE ALLOWED FOR EXISTING CONDITIONS WHICH COULD HAVE BEEN READILY OBSERVED OR INFERRED FROM THE EXISTING CONDITIONS OR FROM THE PLANS.
   A. STUDY THE NEW CIVIL (WHERE APPLICABLE), ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL PLANS AND SPECIFICATIONS.
   B. VISIT THE SITE AND PERFORM A THOROUGH EXAMINATION AND EVALUATION OF ALL EXISTING CONDITIONS
   C. NOTIFY THE ARCHITECT IN WRITING OF ANY SIGNIFICANT DISCREPANCY BETWEEN THE EXISTING CONDITIONS AND THE DOCUMENTS NOTED ABOVE.
   D. CONTACT THE ARCHITECT OR THE ENGINEER IF FURTHER DIRECTION OR ADDITIONAL EXPLANATION IS REQUIRED ON ANY ITEM.
   E. INCLUDE AN ALLOWANCE IN THE BID TO COVER ANY ADDITIONAL COST DUE TO NOTED DISCREPANCIES, EXISTING CONDITIONS, OBSERVATIONS, ETC.
10. CONTRACTOR SHALL PAY FOR AND OBTAIN ALL PERMITS REQUIRED FOR WORK AND SHALL SCHEDULE INSPECTIONS WITH A.H.J. IN A TIMELY MANNER TO ALLOW COMPLETION OF PROJECT ON SCHEDULE.
11. THE FIRE DETECTION (WHERE REQUIRED) AND FIRE PROTECTION (SPRINKLER) SYSTEMS SHALL BE DESIGN / BUILD BY A STATE LICENSED, LOCALLY EXPERIENCED, FIRE ALARM AND FIRE SPRINKLER SUB-CONTRACTORS. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO SUBMIT PLANS IN COMPLIANCE WITH N.F.P.A., NEC, AND LOCAL CODE AND OBTAIN APPROVAL FROM THE FIRE MARSHAL OR A.H.J. DO NOT REUSE THE EXISTING DETECTORS AND DEVICES WITHOUT THE EXPRESS, WRITTEN, APPROVAL OF THE AUTHORITIES.
12. UTILITY INFORMATION SHOWN ON THE PLANS ARE FROM PRELIMINARY CONTACT WITH THE RESPECTIVE UTILITIES AND/OR FROM INFORMATION PROVIDED BY OTHERS. THE CONTRACTORS SHALL CONTACT THE UTILITY COMPANIES PRIOR TO BIDDING TO OBTAIN THE MOST UP TO DATE INFORMATION AND INSTALLATION REQUIREMENTS. PAY ALL PERMIT, CONNECTION, METER, AND OTHER FEES. REPORT ANY DISCREPANCY TO THE ARCHITECT OR ENGINEER. INCLUDE ALL COSTS IN THE BASE BID.
13. CONTRACTOR SHALL REQUEST UTILITY COMPANIES LOCATE AND MARK ALL UNDERGROUND WATER PIPES, SANITARY SEWERS, GAS PIPES, ELECTRICAL AND COMMUNICATIONS CONDUITS AND DUCT BANKS, ETC. PRIOR TO DIGGING OR TRENCHING ON SITE. CONTRACTOR SHALL BE FULLY RESPONSIBLE AND BEAR COST FOR REPAIRING ANY UTILITY DAMAGE ON SITE.
14. REVIEW PLANS AND SPECIFICATIONS, VERIFY ALL CONNECTION POINTS, DIMENSIONS, AND FIELD CONDITIONS, AND CONFIRM THAT WORK IS BUILDABLE AS SHOWN. REPORT ANY CONFLICTS OR OMISSIONS TO THE ARCHITECT OR ENGINEER FOR CLARIFICATION PRIOR TO ORDERING MATERIALS OR PERFORMING ANY WORK IN QUESTION.
15. WHERE A DISCREPANCY MAY EXIST BETWEEN WHAT IS SHOWN ON THE PLANS AND WHAT IS DESCRIBED BY NOTE OR SPECIFICATION, THE CONTRACTOR SHALL PROVIDE THE GREATER QUANTITY, THE BETTER QUALITY, THE MORE STRINGENT, AND GREATER COST ITEM(S) OR REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO SUBMITTING FINAL BID. CONTACT ARCHITECT PRIOR TO FINAL BID FOR CLARIFICATION IF ANY DISCREPANCY IS FOUND.
16. CONTRACTOR SHALL CAREFULLY INSPECT ALL EQUIPMENT RECEIVED AND VERIFY THAT IT IS COMPATIBLE WITH THE MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS PRIOR TO INSTALLING EQUIPMENT. CONTACT ARCHITECT OR ENGINEER FOR DIRECTION IF ANY DISCREPANCY ARISES.
17. ALL MATERIAL AND EQUIPMENT SHALL FIT IN THE SPACE AVAILABLE; ALL DIMENSIONS AND CLEARANCES SHALL BE VERIFIED AT THE FACILITY BEFORE COMMENCING WORK. ALL WORKING CLEARANCES AROUND EQUIPMENT SHALL BE MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
18. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
19. ALL INSTALLED SYSTEMS, EQUIPMENT, DEVICES, AND APPURTENANCES SHALL BE TESTED IN PLACE TO CONFIRM THAT IT MEETS CODE AND THESE PLANS AND SPECIFICATIONS. REPLACE ALL CONTRACTOR FURNISHED ITEMS AT CONTRACTOR'S EXPENSE PRIOR TO CALLING FOR FINAL INSPECTION OR SUBMITTING FOR FINAL PAYMENT.
20. SUBMITTALS AND SUBSTITUTIONS: THE CONTRACTOR SHALL SUBMIT INFORMATION TO THE OWNER FOR ALL EQUIPMENT, DEVICES, AND PIPING COMPONENTS INTENDED TO BE PROVIDED FOR THIS PROJECT WITHIN 15 BUSINESS DAYS FROM CONTRACT AWARD. IT SHALL BEAR THE GC'S REVIEW STAMP. HIGHLIGHT SUBSTITUTIONS FOR EQUIPMENT AND MATERIALS AND WARRANT THAT SUBSTITUTED EQUIPMENT IS EQUAL TO THAT SPECIFIED.
21. MATERIALS USED IN AIR PLENUMS, DUCTS, AIR HANDLING EQUIPMENT, AND WHERE REQUIRED BY A.H.J. SHALL HAVE A MAXIMUM FLAME SPREAD OF 25 AND SMOKE DEVELOPMENT OF 50 AS TESTED IN ACCORDANCE WITH NFPA-255, UL723, AND ASTM E84. DO NOT USE PVC IN RETURN AIR PLENUMS. USE ONLY PLENUM RATED MATERIALS IN RETURN AIR PLENUMS AND REQUIRED SPACES.
22. ALL PIPING, CONDUIT, DUCT, ETC. SHALL BE PROPERLY SUPPORTED FROM STRUCTURE. PIPE HANGERS AND SUPPORTS SHALL COMPLY WITH MSS SP-58-2009. INSTALLATION METHODS SHALL COMPLY WITH MSS SP-69-2009. PROTECT INSULATION WITH SECTION OF CALCIUM SILICATE PIPE INSULATION AND A HALF-ROUND SHEET METAL SHIELD ON THE OUTSIDE OF INSULATION. SHIELD SHALL BE 12" LONG OR SHALL EXTEND 2" BEYOND EITHER SIDE OF HANGER (IF LONGER).
23. CONTRACTOR SHALL USE EXTREME CARE IN SELECTION AND MOUNTING METHODS FOR INSTALLATION OF EQUIPMENT TO INSURE THAT NOISE AND VIBRATION ARE HELD TO A MINIMUM. USE VIBRATION ISOLATORS, SPRINGS, DAMPENING MATERIALS, ETC. WHERE REQUIRED. ON MOTOR DRIVEN SYSTEMS EXCEEDING 1/2 HP, PROVIDE VIBRATION ISOLATION AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER OR EQUAL TO KINETICS NOISE CONTROL WHERE NO RECOMMENDATION IS MADE.
24. REFER TO ARCHITECT'S SPECIFICATIONS AND NOTES FOR CUTTING, TRENCHING, AND PATCHING. PAINT ALL CONDUIT, PIPING, DUCTS, AND DEVICES EXPOSED TO PUBLIC PER ARCHITECTURAL PLANS OR TO MATCH ADJACENT BUILDING SURFACE, UNLESS NOTED OTHERWISE.
25. UNLESS OTHERWISE SPECIFIED, ALL REQUIRED CUTTING AND PATCHING OF FLOORS, WALLS, ROOF, PARTITIONS AND OTHER MATERIALS IN THE BUILDING IS TO BE INCLUDED IN THE SCOPE. THE CONTRACTOR SHALL RESTORE THESE AREAS TO ORIGINAL CONDITION UPON COMPLETION. ALL PENETRATIONS OF WALLS, CEILINGS, OR FLOORS SHALL BE CORE-DRILLED, SLEEVED, AND SEALED TO COMPLY WITH RESPECTIVE BUILDING CODE REQUIREMENTS. ALL PENETRATIONS THROUGH FIRE RATED WALL SHALL COMPLY WITH UL LISTED SLEEVE ASSEMBLY REQUIREMENTS. ROOF PENETRATIONS SHALL COMPLY WITH ROOF MANUFACTURER'S RECOMMENDATIONS. REFER ALSO TO ARCHITECTURAL REQUIREMENTS FOR WATER-PROOFING.

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SHEET ISSUE:

	06/19/2023	ISSUED FOR PERMIT
3	03/22/2024	PROTOTYPE UPDATES
4	09/27/2024	PROTOTYPE UPDATES
5	11/27/2024	ISSUED FOR CONSTRUCTION

PRINCIPAL IN CHARGE: RO
PROJECT ARCHITECT: MS
DRAWN BY: DJ

SHEET TITLE:
MECHANICAL AND PLUMBING ROOF PLAN

SHEET NO. MP200
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