

**OUTSIDE AIR CALCULATIONS:**

**RESTAURANT DINING ROOM OCCUPANCY:**  
 NET OCCUPIABLE SPACE = 1835 SQ. FT.  
 TOTAL PERSONS X 7.5 = .18 X NET SQ. FT. = REQ'D CFM.  
 1835 x .18 = 330.3 CFM  
 CUSTOMER SEATING: 80 PERSONS  
 STAFF: 20 PERSONS  
 TOTAL PERSONS X 7.5 = .18 X NET SQ. FT. = REQ'D CFM.  
 (100 x 7.5) + (.18 x 1835) = 1,000.3 CFM REQUIRED.  
 OUTSIDE AIR PROVIDED:  
 RTU-1 = 2,000 CFM  
 TOTAL: 2,000 CFM - IN COMPLIANCE.

**RESTAURANT KITCHEN OCCUPANCY:**  
 NET OCCUPIABLE SPACE = 1415 SQ. FT.  
 TOTAL PERSONS X 7.5 = .12 X NET SQ. FT. = REQ'D CFM.  
 1415 x .12 = 169.8 CFM  
 KITCHEN STAFF: 20 PERSONS  
 TOTAL PERSONS X 7.5 = .12 X NET SQ. FT. = REQ'D CFM.  
 (20 x 7.5) + (.12 x 1415) = 319.8 CFM REQUIRED.  
 OUTSIDE AIR PROVIDED:  
 RTU-2 = 2,000 CFM  
 TOTAL: 2,000 CFM - IN COMPLIANCE.

REGISTERED ENGINEER'S OUTSIDE AIR DESIGN NOTE:  
 TABLE 403.3 DEFAULT OCCUPANCY IS NOT USED BECAUSE THE OCCUPANCY IS A KNOWN FACTOR AND HENCE, USED IN THIS CALCULATION AS DEMONSTRATED ABOVE AND CERTIFIED HEREIN. SECTION 403.3.1 EXCEPTION STATES: "The occupant load is not required to be determined based on the estimated maximum occupant load rate indicated in Table 403.3.1 where approved statistical data document the accuracy of an alternate anticipated occupant density."  
 THIS OCCUPANCY IS DEMONSTRATED AND CERTIFIED BY THE REGISTERED ENGINEER IN THE BODY OF THIS CALCULATION.

ENGINEER'S ADDITIONAL NOTE:  
 THE DINING ROOM SEATING IS A KNOWN FACTOR THROUGH THE SEATING SHOWN WHICH JUSTIFIES THE OUTSIDE AIR CALCULATION AS SHOWN COMPLIES WITH CODE. THE DINING SQUARE FOOTAGE SHOWN IS THE TOTAL SQUARE FOOTAGE NOT THE NET OCCUPIABLE SPACE ALTHOUGH CODE ALLOWS "NET OCCUPIABLE SPACE". THE KITCHEN SQUARE FOOTAGE IS ALSO THE TOTAL SQUARE FOOTAGE. THE NUMBER OF STAFF SHOWN IN THE KITCHEN (10) IS ALMOST DOUBLE THE ACTUAL AND IS EXAGGERATED TO MORE CLEARLY DEMONSTRATE THAT THE OUTSIDE AIR REQUIREMENT IS BEING MET. FINALLY, THE DINING OUTSIDE AIR IS 1300 CFM WHICH IS 834.6 CFM MORE THAN REQUIRED. THE KITCHEN OUTSIDE AIR IS 1350 CFM WHICH IS 1630.0 CFM MORE THAN REQUIRED. TOTAL OUTSIDE AIR FOR BOTH ZONES IS EXCEEDED.

**PLAN NOTES**

1. INSTALLATION SHALL COMPLY WITH 2012 IMC AND 2009 IECC AND ALL APPLICABLE LAWS, CODES AND ORDINANCES.
2. DUCTWORK HAS BEEN COORDINATED WITH THE PROPOSED TRUSS LAYOUT. ACTUAL INSTALLED CONFIGURATION MAY DIFFER FROM ORIGINAL PLANS. COORDINATE WITH THE GENERAL CONTRACTOR AS TRUSSES ARE INSTALLED TO CONFIRM DUCT LAYOUT AS DESIGNED WILL WORK WITH THE INSTALLED TRUSS CONFIGURATION. MINOR MODIFICATIONS IN LOCATIONS MAY BE REQUIRED.
3. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT TO THE OWNER AS REQUIRED PER 2009 IECC.
4. THE ENTIRE BUILDING IS CONDITIONED EXCEPT FOR THE COOLER AND FREEZER. TOTAL BUILDING SQUARE FOOTAGE IS 4332. AREA OF COOLER/FREEZER IS 218 SQ. FT. TOTAL CONDITIONED SQUARE FOOTAGE IS 3954 SQ. FT.

NOTE:  
 THE DESIGN, INSTALLATION, OPERATION, INSPECTION, AND MAINTENANCE OF ALL PUBLIC AND PRIVATE COMMERCIAL COOKING EQUIPMENT SHALL COMPLY WITH CHAPTER FPFC 15.011 AND NFPA 96 STANDARD FOR VENTILATION CONTROL AND FIRE PROTECTION OF COMMERCIAL COOKING OPERATIONS. KITCHEN HOOD PLANS, COMPLIANT WITH THE ABOVE, SHALL BE PERMITTED SEPARATELY.

NOTE:  
 A SEPARATE PERMIT HAS BEEN SUBMITTED FOR THE MECHANICAL EXHAUST HOODS AND ANSUL SYSTEM BY THE MECHANICAL CONTRACTOR.

**KEYED NOTES:**

- 1 EXHAUST DUCTS FROM CEILING EXHAUST FANS TO GREENHECK ROOF EXHAUST VENTILATOR. TRANSITION FROM THROAT TO 14x14 PLENUM DUCT AND EXTEND DOWN 12" BELOW JOISTS FOR CONNECTION OF EXHAUST DUCT(S).
- 2 FRV-2 ON ROOF. TRANSITION FROM FAN OPENING TO 12x12 WELDED STEEL EXHAUST DUCT AND EXTEND DOWN TO HOOD EXHAUST OPENING. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 3 FRV-3 ON ROOF. TRANSITION FROM FAN OPENING TO 12x12 WELDED STEEL EXHAUST DUCT AND EXTEND DOWN TO HOOD EXHAUST OPENING. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 4 EXTEND 4" GALVANIZED SNAP-LOK DRYER VENT FROM DRYER UP TO ABOVE CEILING AND UP TO ROOF. TOTAL DEVELOPED LENGTH IS LESS THAN 25 FEET AND WELL UNDER THE MANUFACTURER'S MAXIMUM VENTING DISTANCE.
- 5 PROVIDE SURFACE MOUNT FRAME FOR INSTALLATION IN GYP/HARD CEILING.
- 6 UNIT WEIGHTS ARE LISTED FOR COORDINATION. VERIFY EXACT LOCATION WITH GC.
- 7 INSTALL THERMOSTATS FOR RTU-1 & RTU-2 IN MANAGERS OFFICE WITH SENSORS AT INDIVIDUAL ZONES AS INDICATED.
- 8 FLEX CONNECTION FROM RETURN AIR DOWNDUCT THROUGH TRUSS WEBBING.
- 9 TRANSITION FROM RTU-2 RETURN AIR OPENING TO 30x20 AND EXTEND DOWN TO ELEVATION WHICH WILL ALLOW FOR EXTENDING THE CONNECTIONS WITH VOLUME DAMPERS TO RETURN GRILLES AS INDICATED. FIELD COORDINATE PRIOR TO INSTALLATION.
- 10 RIGID CONNECTIONS FOR TYPE 'E' DIFFUSERS ON COOK LINE AND DIFFUSER OVER ICE MACHINE. SEE DETAIL 5 ON SHEET M2.
- 11 STAINLESS STEEL WALL PANEL AT HOOD, FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
- 12 FRV-4 ON ROOF. TRANSITION FROM FAN OPENING TO 1x1 SHEET METAL EXHAUST DUCT AND EXTEND TO HOOD 3 EXHAUST OPENING. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- 13 PROVIDE INDEPENDENT ON/OFF SWITCH FOR EF-2 ABOVE MOP BASIN.

**HYAC GENERAL NOTES**

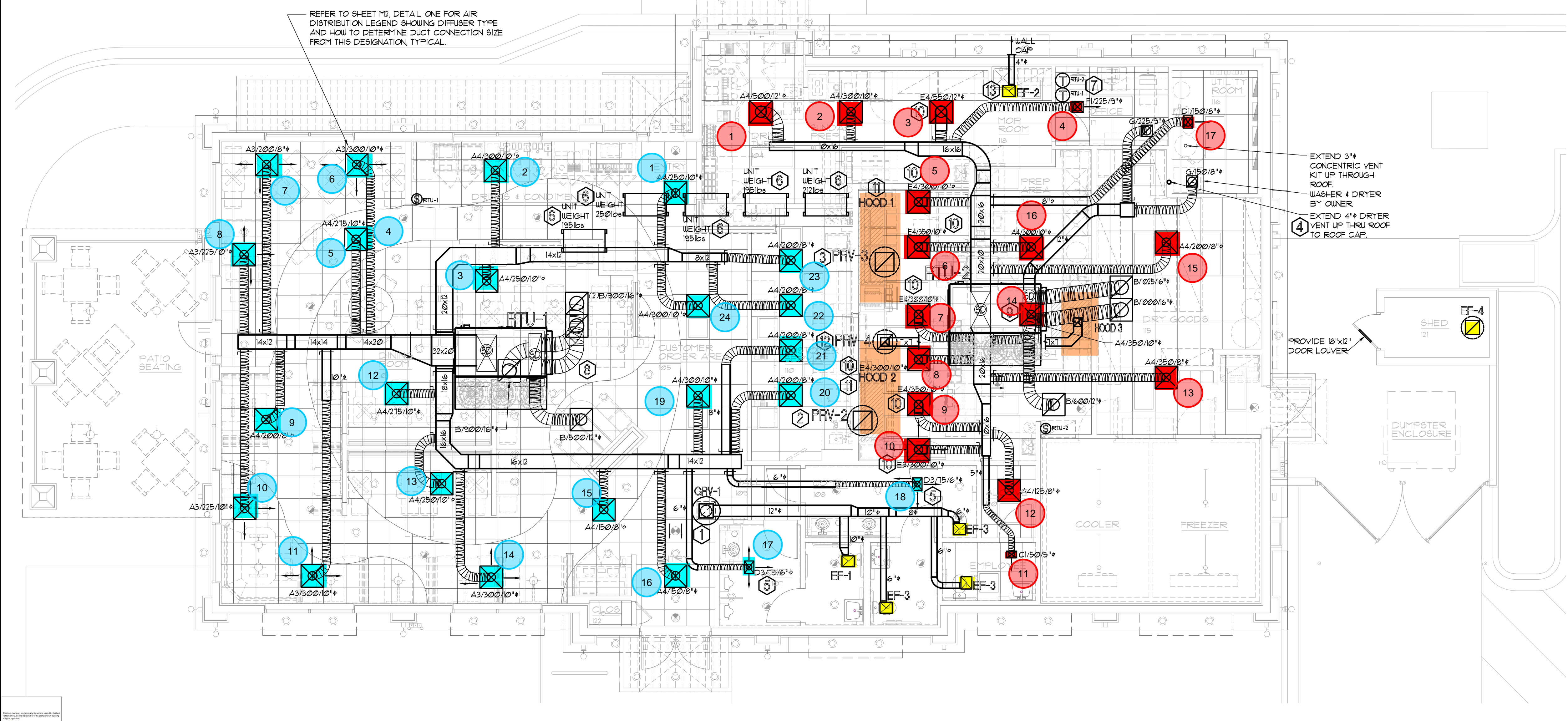
1. DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. VERIFY ALL DIMENSIONS AND LOCATIONS PRIOR TO FABRICATION OR INSTALLATION. ALL RECTANGULAR/SQUARE DUCTWORK SHALL BE FINEST QUALITY GALVANIZED SHEET STEEL WITH 2" x 1/4" LB. DENSITY FOIL FACED EXTERNAL INSULATION WITH AN R-VALUE OF 6.0. COORDINATE DUCTS WITH STRUCTURE PRIOR TO INSTALLATION. ALL DUCT SHALL BE CONSTRUCTED AND INSTALLED PER SMACNA REQUIREMENTS.
2. ALL FLEXIBLE DUCT CONNECTIONS SHALL BE CLASS ONE TYPE. PROVIDE TAB COLLARS AT MAIN DUCT WITH MANUAL VOLUME DAMPER WITH LOCKING QUADRANT.
3. AN IONIZATION PRINCIPLE SMOKE DETECTOR SHALL BE INSTALLED IN THE SUPPLY 4 RETURN DUCTWORK OF ALL RTU'S AND PROVIDED BY LENNOX WITHIN UNIT. THE DETECTOR SHALL BE WIRED TO APPLICABLE FIRE ALARM SYSTEM BY THE FIRE ALARM CONTRACTOR. PROVIDE LED, AND HORN ALARM STATIONS (DUCT SMOKE DETECTOR'S REMOTE TEST SWITCH) LOCATED IN NORMALLY OCCUPIED AREA MOUNTED AT 48" AFF.
4. ALL ROOF AND WALL PENETRATIONS SHALL BE SEALED BY THE GENERAL CONTRACTOR.
5. CONTRACTOR SHALL COORDINATE WITH STRUCTURAL PLANS PRIOR TO BID TO VERIFY EXISTING CLEARANCES FOR DUCT. COORDINATE WITH THE GENERAL CONTRACTOR PRIOR TO TRUSS ORDER AND AS STRUCTURE IS BEING CONSTRUCTED TO ASSURE ALL CLEARANCES FOR DUCTWORK ARE COORDINATED.
6. DEVIATION FROM MATERIALS METHODS, OR PROCEDURES SET FORTH IN THESE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO SUBMISSION OF A BID. LACK OF KNOWLEDGE OR UNDERSTANDING OF THE PLANS SHALL NOT JUSTIFY ANY CLAIMS OR ADDITIONAL COMPENSATION.
7. INSTALLATION SHALL COMPLY WITH 2012 IMC AND 2009 IECC AND ALL APPLICABLE LAWS, CODES AND ORDINANCES.
8. THE HYAC CONTRACTOR SHALL COORDINATE ALL EQUIPMENT, DUCT, PIPING, LOUVERS, DIFFUSERS, ETC. INCLUDING LOCATIONS AND CLEARANCES WITH ALL OTHER TRADES ON PROJECT IN PRE-CONSTRUCTION MEETING, PRIOR TO ANY ORDER, FABRICATION OR INSTALLATION.
9. COORDINATE WITH ELECTRICAL CONTRACTOR AND EQUIPMENT NATIONAL ACCOUNTS ON ALL ELECTRICAL DATA PRIOR TO ORDER.
10. SUPPLY DUCTWORK SHALL BE CONSTRUCTED, FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA REQUIREMENTS FOR A 1" POSITIVE PRESSURE CLASSIFICATION.
11. RETURN AND EXHAUST DUCTWORK SHALL BE CONSTRUCTED, FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA REQUIREMENTS FOR A 1" NEGATIVE STATIC PRESSURE.
12. ALL EXHAUST FAN DISCHARGES AND PLUMBING VENTS SHALL BE A MINIMUM OF 10'-0" FROM FRESH-AIR INTAKES. COORDINATE WITH PLUMBING PLANS PRIOR TO INSTALLATION.
13. THE MECHANICAL CONTRACTOR SHALL BALANCE ALL SYSTEMS TO WITHIN TEN PERCENT OF DESIGN VALUES SPECIFIED HEREIN.
14. EXTEND CONDENSATE DRAIN LINES FROM RTU'S TO ROOF DRAINS AND/OR DOWNSPOUTS WHICH DRAIN TO STORM SEWER. REFER TO DETAILS ON SHEET M2.
15. HOOD EXHAUST DUCT SHALL BE MINIMUM 16 GAUGE GALVANIZED SHEET STEEL WITH ALL SEAMS WELDED LIQUID-TIGHT. PROVIDE 3M FIREMASTER DUCT WRAP FROM HOOD TO TOP OF ROOF CURB.
16. CONTROLS SHALL BE PER LENNOX NATIONAL ACCOUNTS. COORDINATE WITH LENNOX REPRESENTATIVE ON ALL NECESSARY CONTROLS PRIOR TO BID SUBMISSION.

**BUILDING AIR BALANCE SCHEDULE**

POSITIVE SOURCES:	NEGATIVE SOURCES:
RTU-1 2,000 CFM	EF-1 220 CFM
RTU-2 2,000 CFM	EF-2 50 CFM
	3 EF-3 - 10 EA 210 CFM
	FRV-2 1500 CFM
	FRV-3 1500 CFM
	FRV-4 380 CFM
<b>TOTAL: 4,000 CFM</b>	<b>TOTAL: 3,830 CFM</b>
RESULTING TOTAL AIR BALANCE: 170 CFM POSITIVE	

**HYAC LEGEND**

CEILING SUPPLY DIFFUSER	
CEILING RETURN	
CEILING EXHAUST FAN	
SENSOR	
SMOKE DETECTOR	
VOLUME DAMPER	
NEW RIGID DUCT	
CLASS 1 FLEXIBLE DUCT	



**MECHANICAL PLAN**  
 SCALE: 3/16" = 1'-0"

REVISIONS BY

**OLIVERI ARCHITECTS**  
 ALL INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF OLIVERI ARCHITECTS. ALL RIGHTS RESERVED.

Garland Patterson, P.E.  
 FL Lic. No.: 14175  
 FEB. 17, 2023

**MDCI FLORIDA, INC.**  
 Engineering Business No. 5024  
 State of Florida License No. 34095-B  
 © Copyright, 2023. Project No. 2302

**Carroll**  
 New Free Standing  
 655 West Granada Boulevard  
 Ormond Beach, Florida 32174  
 Volusia County

Date: 02.17.23  
 Scale: AS NOTED  
 Project Mgr: DG  
 Drawn: BMD  
 Job: 22-131  
 Sheet: **M1**

### CONTROL NOTES

- RTU-1, RTU-2, 4 RTU-OA WILL SHUT-DOWN UPON ACTIVATION OF FIRE SUPPRESSION SYSTEM.
- RTU-1, RTU-2, 4 RTU-OA WILL SHUT-DOWN ON ACTIVATION OF ANY DUCT DETECTOR.
- OCCUPIED MODE: FANS IN RTU-1 & RTU-2, EXHAUST FANS FRV-2, 3, 4 & 4 TO RUN CONTINUOUSLY. RESTROOM EXHAUST TO BE INTERLOCKED WITH RR LIGHTS.
- UNOCCUPIED MODE: FANS IN RTU-1 & RTU-2 TO RUN ONLY WHEN COOLING OR HEATING IS CALLED FOR.
- RTU-OA SHALL BE INTERLOCKED WITH RTU-1 AND RTU-2 VIA LENNOX CONTROLS TO ASSURE SIMULTANEOUS OPERATION. COORDINATE ALL CONTROLS REQUIREMENTS WITH LENNOX PRIOR TO BID SUBMISSION.

### LENNOX SETTINGS FOR CULVERS

#### Kitchen Unit

Parameter 3.01 HEAT DELAY NEEDS TO BE SET TO "DISABLED". CONTROL PARAMETER 3.01=0 Pg. 92  
ECONOMIZER DIP SWITCHES A56 (EM1) NEED TO BE SET TO "GLOBAL" MODE. 1-ON 2-OFF (Pg. 5 FIG 8)  
ECONOMIZER MIN POSITION POTENTIOMETER NEEDS TO BE DETERMINED AND SET BY AIR BALANCER (Pg. 52 FIG 33)  
BOTH THE THERMOSTAT AND THE HOOD FANS MUST BE TIED INTO TBI TERMINAL 849 FOR OCC/UNOCC CONTROL.  
FRESH AIR TEMPERING (HEATING) CONTROL PARAMETER 6.20=160 "-55F" (KITCHEN IS USUALLY IN COOLING MODE)  
(PARAMETER 6.20 Pg. 93+ x CHARTS Pg. 103)

#### Dining Room Unit

PARAMETER 3.01 HEAT DELAY NEEDS TO BE SET TO "DISABLED". CONTROL PARAMETER 3.01=0 Pg. 92  
ECONOMIZER DIP SWITCHES A56 (EM1) NEED TO BE SET TO ECONOMIZER TYPE PURCHASED/INSTALLED. 1=1 2=2  
(Pg. 5 FIGURE 8)  
ECONOMIZER MIN POSITION POTENTIOMETER NEEDS TO BE DETERMINED AND SET BY AIR BALANCER (Pg. 52 FIGURE 33)  
THE THERMOSTAT MUST BE TIED INTO TBI TERMINAL 849 FOR OCC/UNOCC CONTROL.  
FRESH AIR TEMPERING (HEATING) CONTROL PARAMETER 6.20=142 "160F" (ROOM NEUTRAL)  
(PARAMETER 6.20 PAGE 93+ x CHARTS PAGE 103)

OTHER PARAMETERS THAT WE DIDN'T SET, BUT ARE PART OF START-UP:

- ROOM SET POINT
- REMOTE SENSOR OPERATION
- TEMP DEADBANDS

CHECK FOR CORRECT OPERATION AND WIRING OF ALL SENSORS.

NOTE: VERIFY ALL COLORS WITH OWNER AND ARCHITECT

### NATIONAL ACCOUNT PROGRAM

#### 1. CAPTIVEAIRE - ROOFTOP HVAC EQUIPMENT

National Accounts Sales: (866) 784-6900

National Account Technical Support: support@captivaire.com

#### 2. ACCUREX/ GREENHECK FAN CORPORATION - KITCHEN HOODS, EXHAUST FANS, ROOF CURBS, ANSUL SYSTEMS, AND ACCESSORIES

CONTACT Patrick Smith @ 1-612-670-2938 OR patrick.smith@accurex.com

#### 3. CARNES COMPANY - DIFFUSERS AND GRILLES

National Accounts Rep: Brian Baker @ (608) 845-6411 bbaker@carnes.com

National Accounts Sales: Chris Stratton @ (608) 845-6411 cstratton@carnes.com

#### RTU - 1

**CAPTIVEAIRE CASRTU3-E.452-24-20T-DOAS** COMBINATION GAS HEATING AND ELECTRIC COOLING ROOFTOP UNIT w/HUMIDITROL  
264,000 NET. COOLING CAPACITY, 18.2 EER. 208 / 230 VOLT, 3 PHASE, 87.9A MCA & 100A MOCP. 244039 BTU INPUT FOR GAS HEAT. UNIT WEIGHT IS 2,130lbs.  
**BLOWER MOTOR SET FOR NOMINAL 5,200 CFM** & FRESH AIR INTAKE DAMPER SET FOR MINIMUM **2,000 CFM** PROVIDE MANUFACTURER'S 18" HIGH ROOF CURB, TWO STAGE CONTROL, DUCT DISCHARGE CONTROL, IN-DUCT SMOKE DETECTORS, BELT TENSIONER WITH SPARE BELT, MERV 4 FILTERS, LOOSE SHIPPED CONDENSATE TRAP AND HONEYWELL OR EQUAL T7350 NIGHT SET BACK THERMOSTAT AND DISCONNECT SWITCH. MOTORIZED OUTSIDE AIR INTAKE DAMPER. NO ECONOMIZER.  
**NO SUBSTITUTIONS.** PROVIDE BOTTOM TAP FOR GAS CONNECTION.

#### RTU - 2

**CAPTIVEAIRE CASRTU3-E.452-24-20T-DOAS** COMBINATION GAS HEATING AND ELECTRIC COOLING ROOFTOP UNIT w/HUMIDITROL  
264,000 NET. COOLING CAPACITY, 18.2 EER. 208 / 230 VOLT, 3 PHASE, 87.9A MCA & 100A MOCP. 244039 BTU INPUT FOR GAS HEAT. UNIT WEIGHT IS 2,130lbs.  
**BLOWER MOTOR SET FOR NOMINAL 5,000 CFM** & FRESH AIR INTAKE DAMPER SET FOR MINIMUM **2,000 CFM** PROVIDE MANUFACTURER'S 18" HIGH ROOF CURB, TWO STAGE CONTROL, DUCT DISCHARGE CONTROL, IN-DUCT SMOKE DETECTORS, BELT TENSIONER WITH SPARE BELT, MERV 4 FILTERS, LOOSE SHIPPED CONDENSATE TRAP AND HONEYWELL OR EQUAL T7350 NIGHT SET BACK THERMOSTAT AND DISCONNECT SWITCH. MOTORIZED OUTSIDE AIR INTAKE DAMPER. NO ECONOMIZER.  
**NO SUBSTITUTIONS.** PROVIDE BOTTOM TAP FOR GAS CONNECTION.

#### GRV - 1

**GREENHECK MODEL FGR** GRAVITY RELIEF VENTILATOR WITH INTEGRAL FACTORY BIRDSCREEN. PROVIDE FACTORY CURB, MINIMUM 12" HIGH, 12"x12" THROAT WITH 12x12 PLENUM DUCT DOWN FOR EXHAUST DUCT CONNECTION. **NO SUBSTITUTIONS.**

#### FRV - 2

(ITEM #49)

**ACCUREX MODEL XRUB-161XP-15 KITCHEN FAN** UPBLAST EXHAUST FAN W/CLEAN-OUT PORT, MOUNTED HINGE BASE, & AUTO BELT TENSIONER, SPARE BELT, & ROOF CURB W/VENTED CURB EXTENSION. **1500 CFM AT 2.33" SP, 1.5 HP MOTOR,** 208 VOLTS, THREE PHASE FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. **NO SUBSTITUTIONS.**

#### FRV - 3

(ITEM #59)

**ACCUREX MODEL XRUB-141-7 KITCHEN FAN** UPBLAST EXHAUST FAN W/CLEAN-OUT PORT, MOUNTED HINGE BASE, & AUTO BELT TENSIONER, SPARE BELT, & ROOF CURB W/VENTED CURB EXTENSION. **1500 CFM AT 1.00" SP, .75 HP MOTOR,** 208 VOLTS, THREE PHASE FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. **NO SUBSTITUTIONS.**

#### FRV - 4

(ITEM #25)

**ACCUREX MODEL XRED-090-D** CONDENSATE DOWNBLAST EXHAUST FAN WITH ROOF CURB AND BACKDRAFT DAMPER. **350 CFM AT 6" SP, .0667 HP MOTOR,** 115 VOLTS, SINGLE PHASE. FAN TO RUN W/STARTING OF DISHWASHER & FOR ONE MINUTE AFTER THE CYCLE IS COMPLETE. **NO SUBSTITUTIONS.**

#### EF - 1

**ACCUREX MODEL XCR-A200** CEILING EXHAUST FAN, BACK DRAFT DAMPER. EXTEND EXHAUST DUCT TO GRAVITY RELIEF VENTILATOR. **220 CFM AT .125" SP,** 115 VOLT, SINGLE PHASE. FAN TO BE INTERLOCKED WITH RESTROOM LIGHTS. NO SUBSTITUTIONS.

#### EF - 2

**ACCUREX MODEL XCR-B50** CEILING EXHAUST FAN, BACK DRAFT DAMPER. EXTEND EXHAUST DUCT TO GRAVITY RELIEF VENTILATOR, WALL CAP FOR MOP BASIN FAN. **50 CFM AT .125" SP,** 115 VOLT, SINGLE PHASE. INDEPENDENT SWITCH FOR FAN OVER MOP BASIN. NO SUBSTITUTIONS.

#### EF - 3

**ACCUREX MODEL XCR-B70** CEILING EXHAUST FAN, BACK DRAFT DAMPER. EXTEND EXHAUST DUCT TO GRAVITY RELIEF VENTILATOR. **70 CFM AT .100" SP,** 115 VOLT, SINGLE PHASE. FAN TO BE INTERLOCKED WITH RESTROOM LIGHTS. NO SUBSTITUTIONS.

#### EF - 4

**ACCUREX MODEL XRED-065** CENTRIFUGAL EXHAUST FAN WITH ROOF CURB AND BACKDRAFT DAMPER.

#### ITEM #49

(HOOD 2)

**GRIDDLE EXHAUST HOOD - ACCUREX MODEL XGEP-5.33S** 64" X 26" X 36" HIGH, LOW PROXIMITY W/FLUE BYPASS. **1500 CFM AT 1.918" SP, 12" x 12" DUCT COLLAR.** INCLUDES THE 3" INTEGRAL AIR SPACE ON BACK OF HOOD & AN ADDITIONAL 3" REAR FILLER PANEL. STAINLESS STEEL WHERE EXPOSED, W/ **GREASE GRABBER** TWO-STAGE FILTRATION SYSTEM. 26" HIGH ENCLOSURE PANELS, FRONT, LEFT AND RIGHT SIDES. GREASE TROUGH SHALL BE PITCHED TO THE LEFT END OF THE HOOD. APPROVALS SHALL INCLUDE UL LISTING AND THE NSF SEAL. THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF **NFPA-96** & TO ALL PREVAILING LOCAL CODE REQUIREMENTS. **NO SUBSTITUTIONS.**

#### ITEM #59

(HOOD 1)

**FRYER EXHAUST HOOD - ACCUREX MODEL XXEP-FB-6.92-S** 83" X 26" X 36" HIGH, LOW PROXIMITY W/FLUE BYPASS. **1500 CFM AT .518" SP, 12" x 12" DUCT COLLAR.** INCLUDES THE 3" INTEGRAL AIR SPACE ON BACK OF HOOD & AN ADDITIONAL 3" REAR FILLER PANEL. STAINLESS STEEL WHERE EXPOSED, W/ **X-TRACTOR STAINLESS STEEL FILTERS** TWO-STAGE FILTRATION SYSTEM. 26" HIGH ENCLOSURE PANELS, FRONT, LEFT AND RIGHT SIDES. GREASE TROUGH SHALL BE PITCHED TO THE LEFT END OF THE HOOD. APPROVALS SHALL INCLUDE UL LISTING AND THE NSF SEAL. THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF **NFPA-96** & TO ALL PREVAILING LOCAL CODE REQUIREMENTS. **NO SUBSTITUTIONS.**

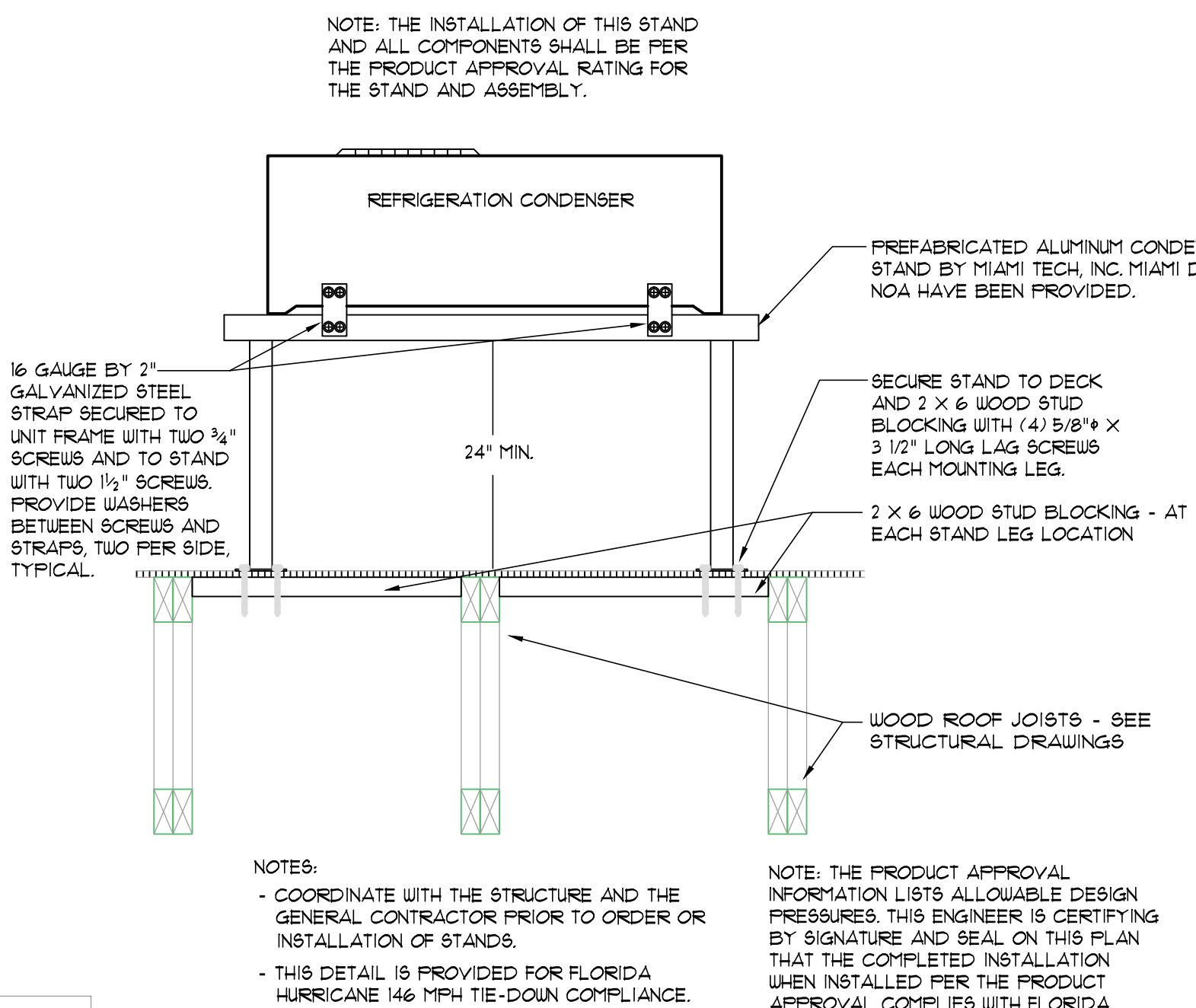
#### ITEM #25A

(HOOD 3)

**DISHWASHER CONDENSATE HOOD - ACCUREX MODEL XD3-3.5-S** CONDENSATE HOOD W/BAFFLE, 42" X 42" X 24" HIGH, STAINLESS STEEL WHERE EXPOSED. **350 CFM AT .127 SP, 7 X 7 DUCT COLLAR.** COLLAR. APPROVALS SHALL INCLUDE THE NSF SEAL. (UL LABEL NOT REQUIRED FOR NON-GREASE APPLICATION). THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF **NFPA-96** & TO ALL PREVAILING LOCAL CODE REQUIREMENTS. **NO SUBSTITUTIONS.**

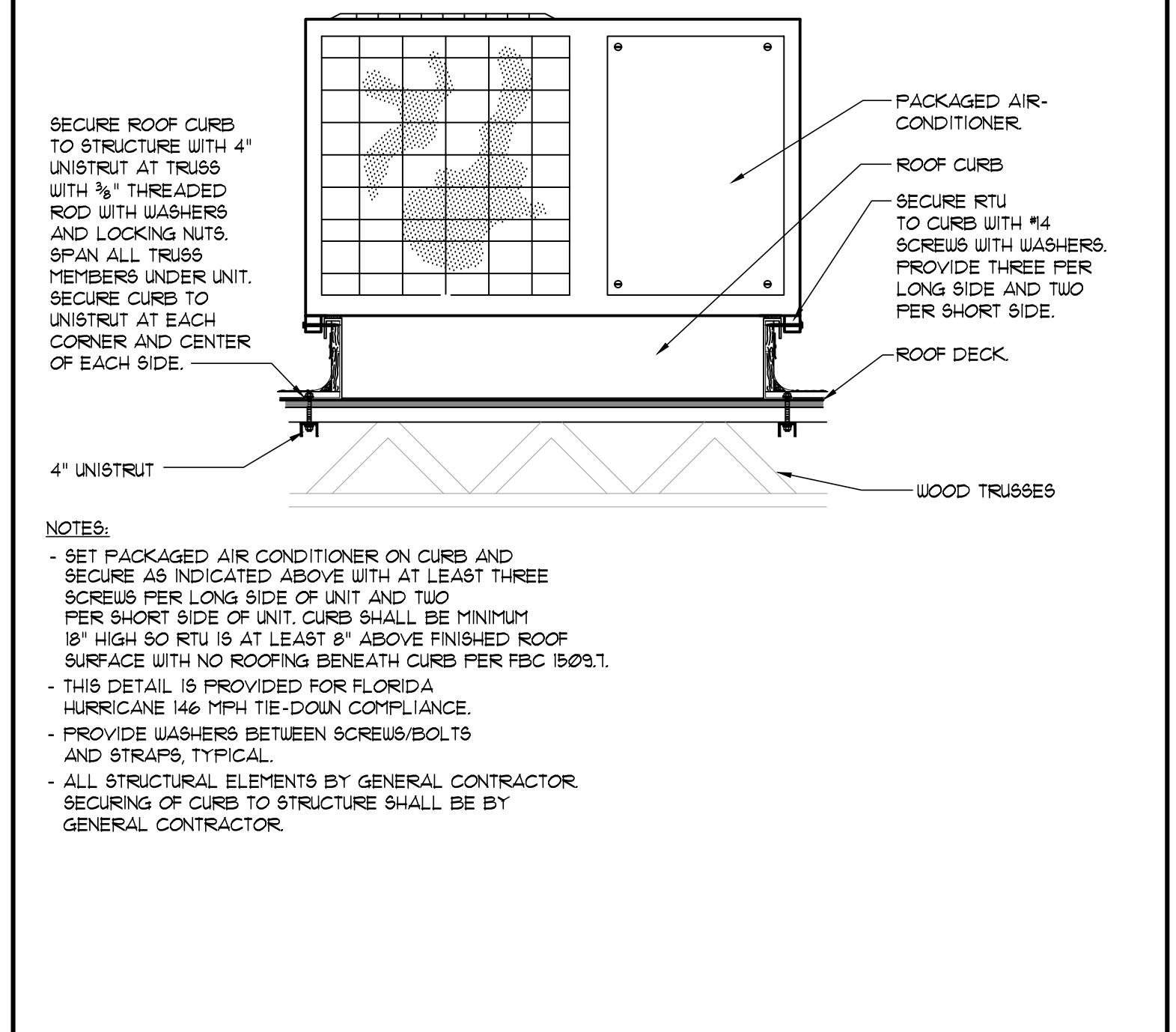
### MECHANICAL EQUIPMENT SPECIFICATIONS

SCALE: NONE



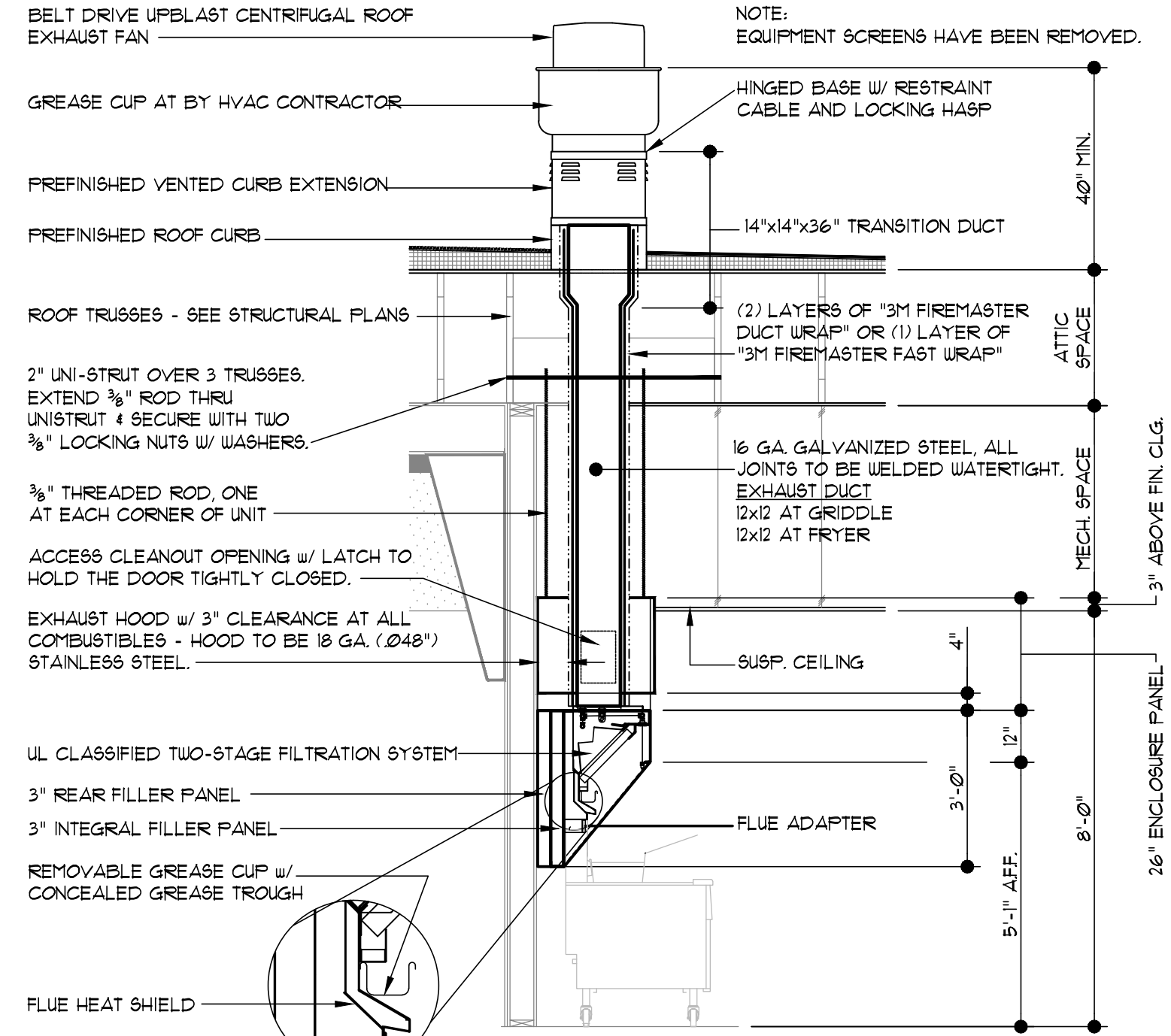
### REFRIGERATION CONDENSER TIE-DOWN DETAIL

SCALE: NONE



### RTU TIE-DOWN DETAIL

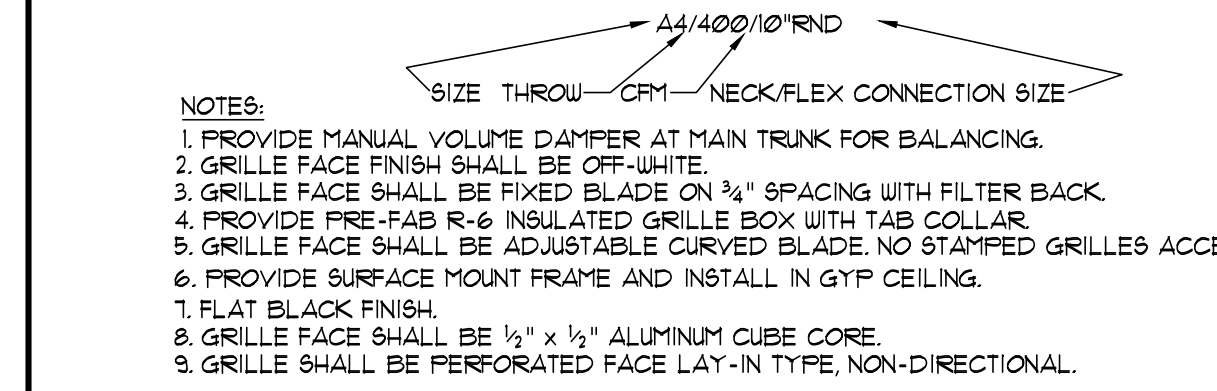
SCALE: NONE



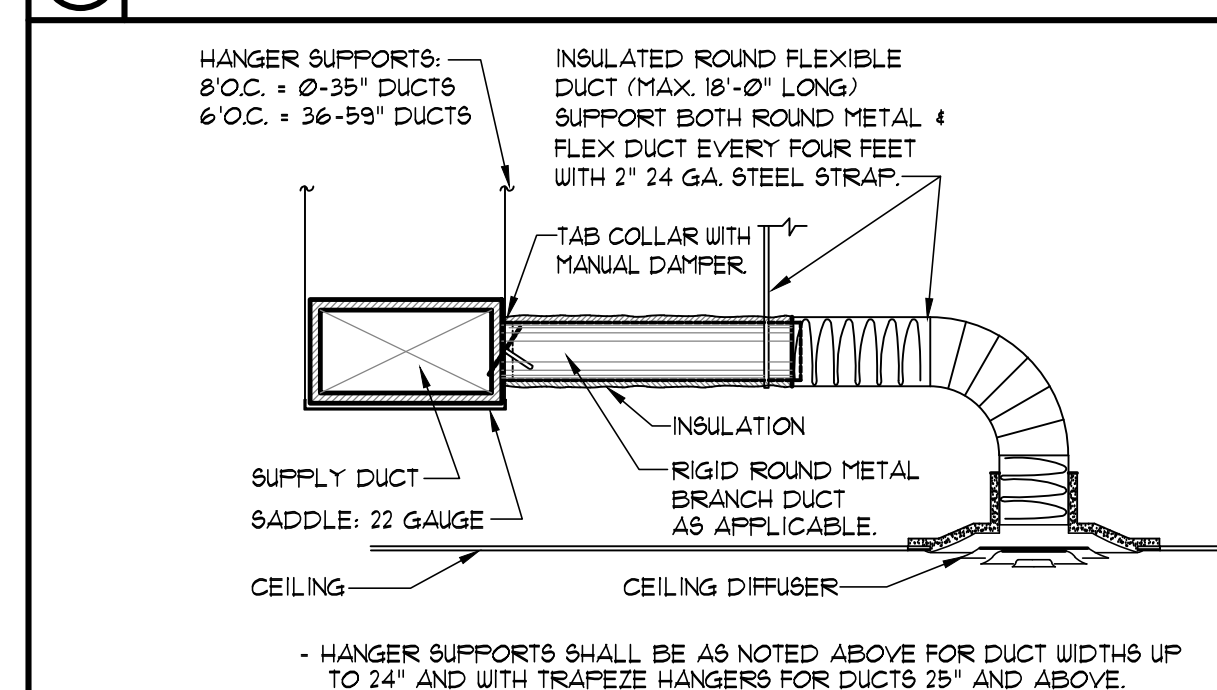
### KITCHEN HOOD DETAIL

SCALE: NONE

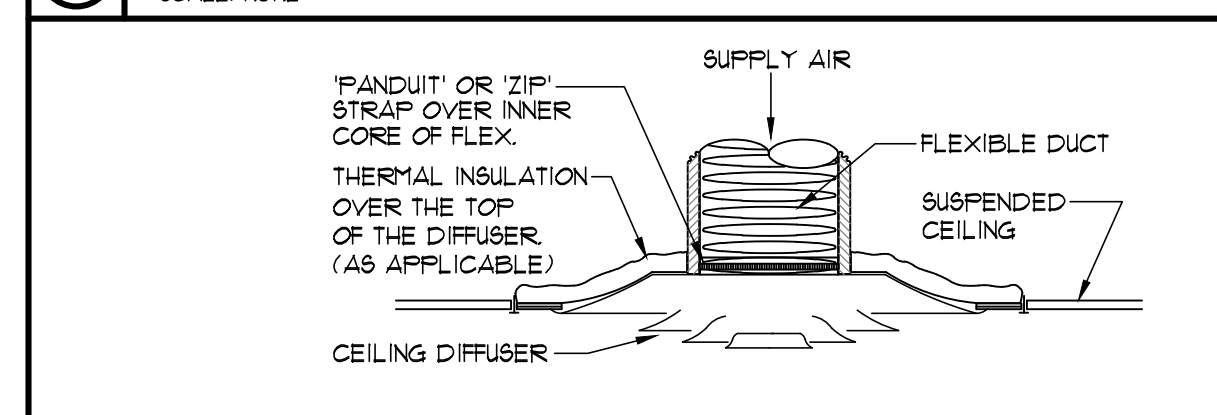
MARK	MANUFACTURER	MODEL NUMBER	SIZE	CFM	NECK	LOCATION	MATERIAL	NOTES:
A	FRICE	ASCD	24 X 24	SEE PLAN	SEE PLAN	CEILING	ALUMINUM	12
B	CARNES	RAFFP	24 X 24	SEE PLAN	24 X 24	CEILING	ALUMINUM	12, 18
C	FRICE	ACVD	10 X 6	SEE PLAN	10 X 6	CEILING	ALUMINUM	12, 4.5, 6
D	FRICE	ACVD	12 X 8	SEE PLAN	12 X 8	CEILING	ALUMINUM	12, 4.5
E	CARNES	8FRB	24 X 24	SEE PLAN	PER PLAN	CEILING	STEEL	12, 9
F	FRICE	630	12 X 12	SEE PLAN	12 X 12	CEILING	ALUMINUM	12



### AIR DISTRIBUTION SCHEDULE

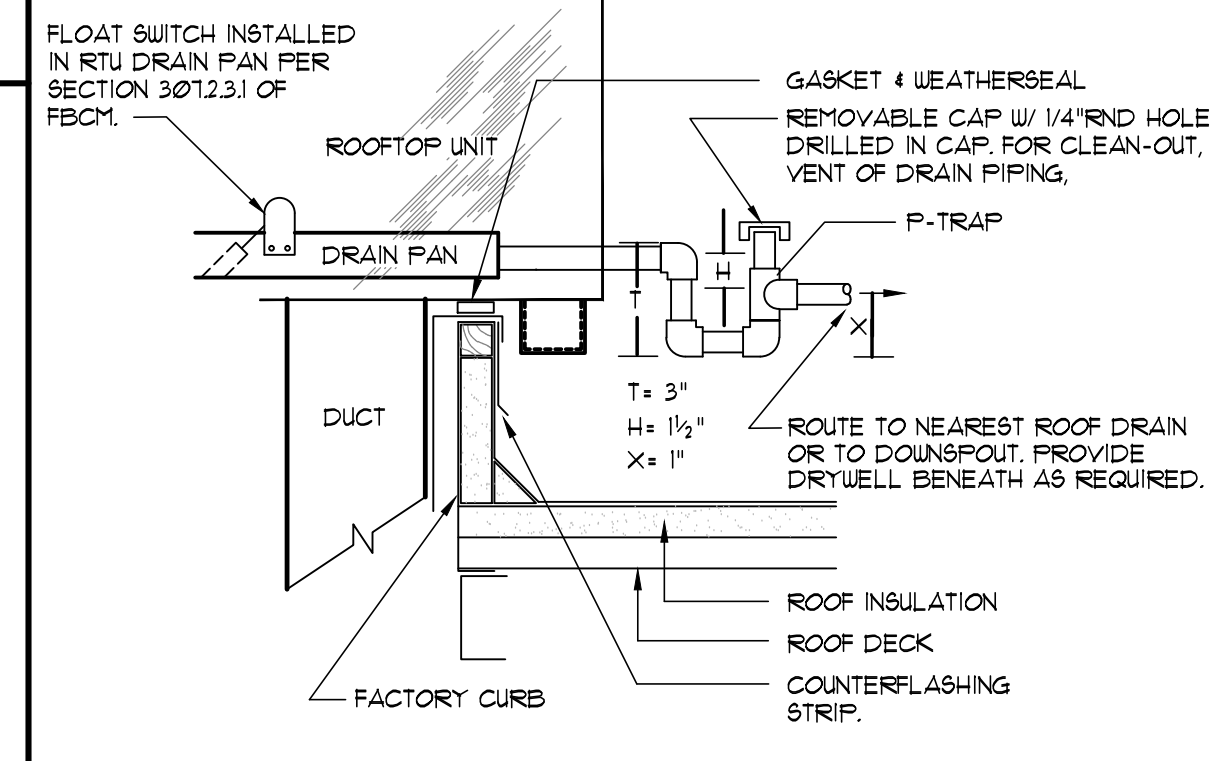


### CEILING DIFFUSER RUN-OUT DETAIL



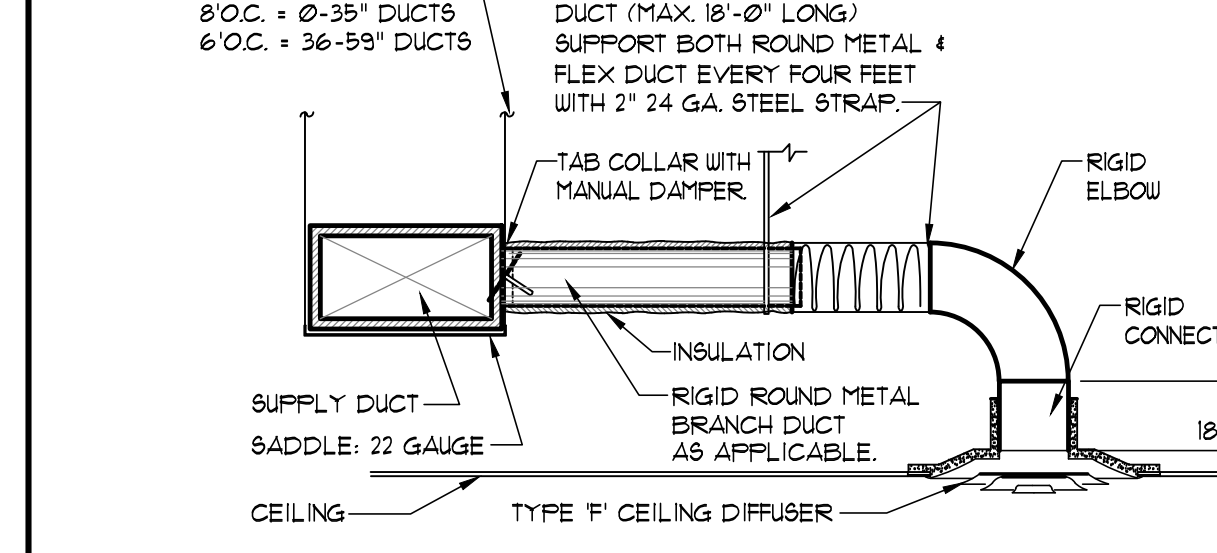
### CEILING DIFFUSER DETAIL

SCALE: NONE



### RTU CONDENSATE DETAIL

SCALE: NONE



### TYPE 'E' CEILING DIFFUSER RUN-OUT DETAIL

SCALE: NONE

REVISIONS	BY

**OLIVER ARCHITECTS**  
ARCHITECTS

Member of the American Institute of Architects  
1004 Indiana Avenue • Palm Harbor, FL 34683  
Phone 727.781.7225  
www.oliverarchitects.com

ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OLIVER ARCHITECTS. ALL RIGHTS RESERVED.

**GARLAND PATTERSON, P.E.**  
FL Lic. No. 14175  
FEB. 17, 2023

**STATE OF FLORIDA**  
PROFESSIONAL ENGINEER

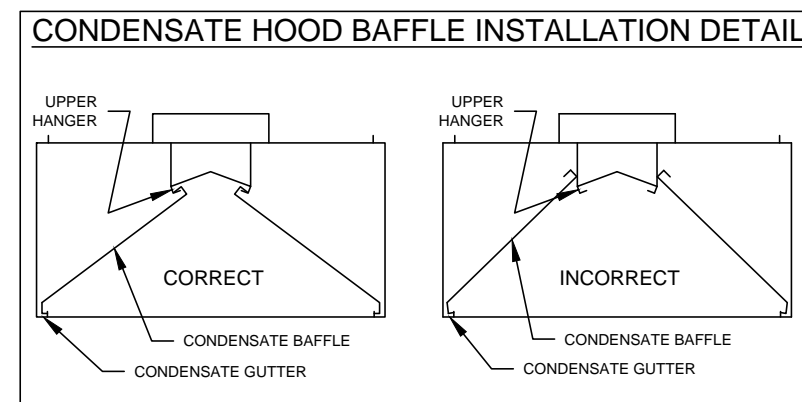
**MDCI FLORIDA, INC.**  
4500 W. US Highway 90  
Safety Harbor, Florida 34685  
Engineering Business No. 9704  
Professional Seal No. 25066  
© Copyright, 2023 • Project No. 23004

**Canora's**  
New Free Standing

655 West Granada Boulevard  
Ormond Beach, Florida 32174  
Volusia

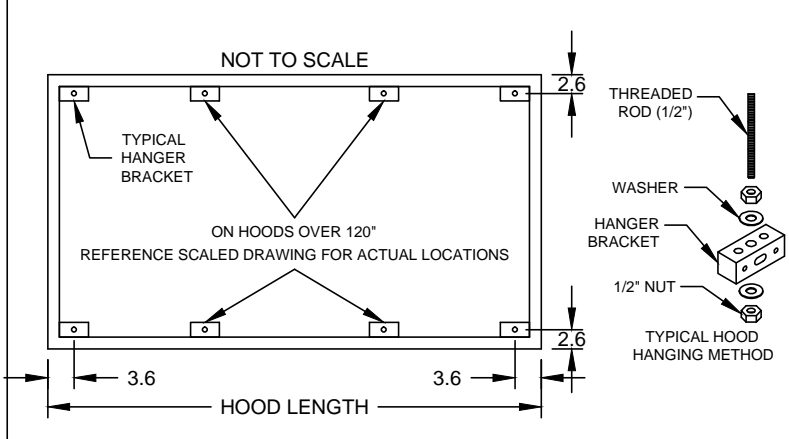
Date:	02.17.23
Scale:	AS NOTED
Project Mgr:	DG
Drawn:	BMD
Job:	22-131
Sheet	

M2

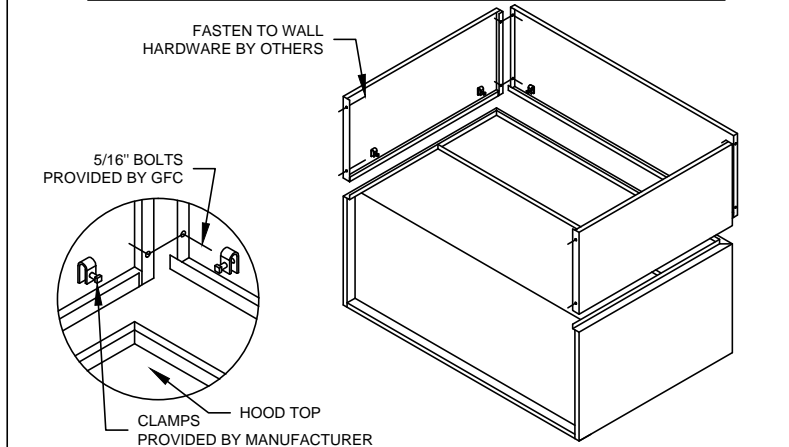


CONDENSATE HOOD BAFFLE INSTALLATION DETAIL

HOOD HANGER BRACKET DETAIL



ENCLOSURE PANEL INSTALLATION DETAIL



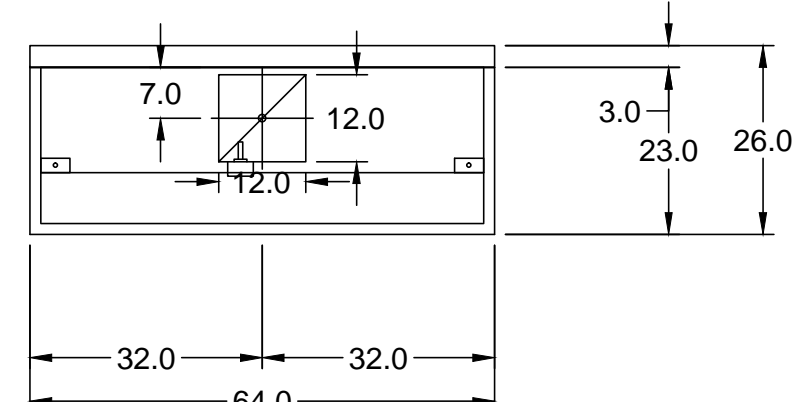
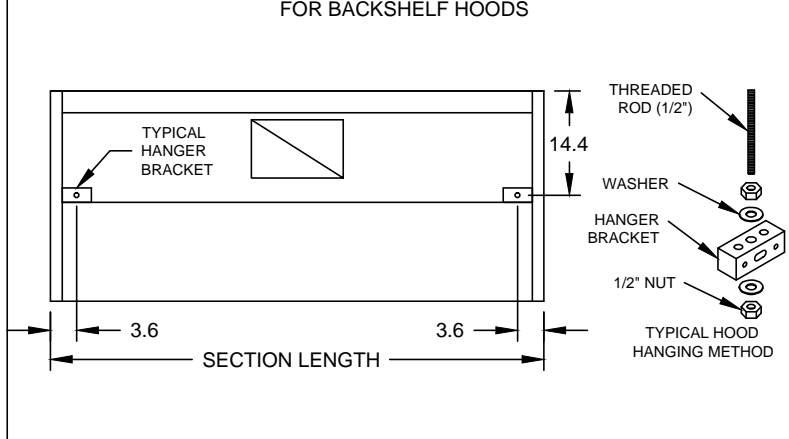
HOOD HANGING HEIGHT FOR FIRE SYSTEMS

VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

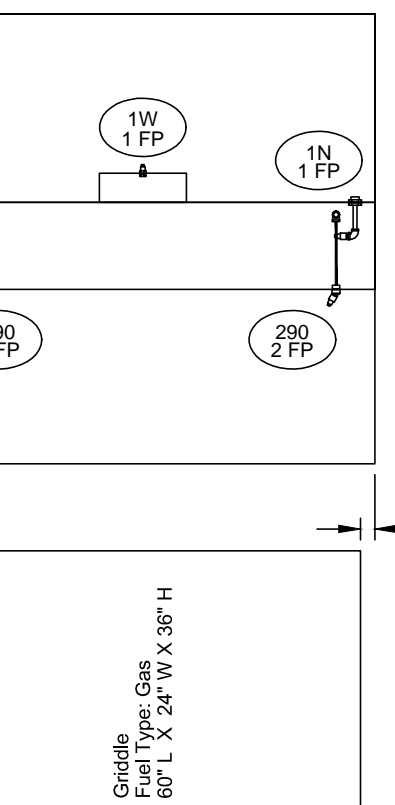
RECOMMENDED HANGING HEIGHT = 72" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.

OTHER HANGING HEIGHT = \_\_\_\_\_ FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.

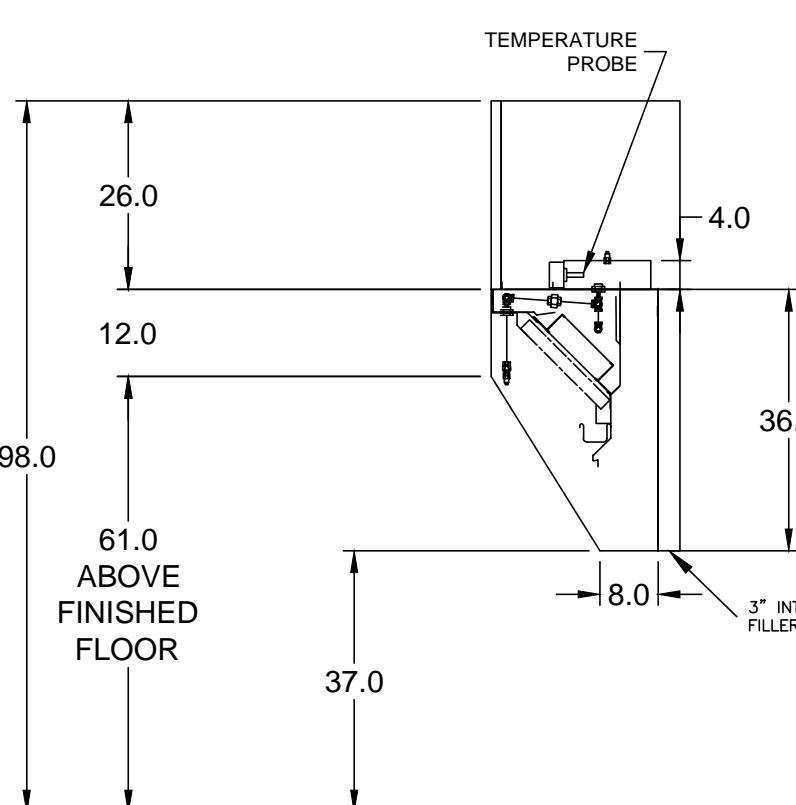
HOOD HANGER BRACKET DETAIL FOR BACKSHELF HOODS



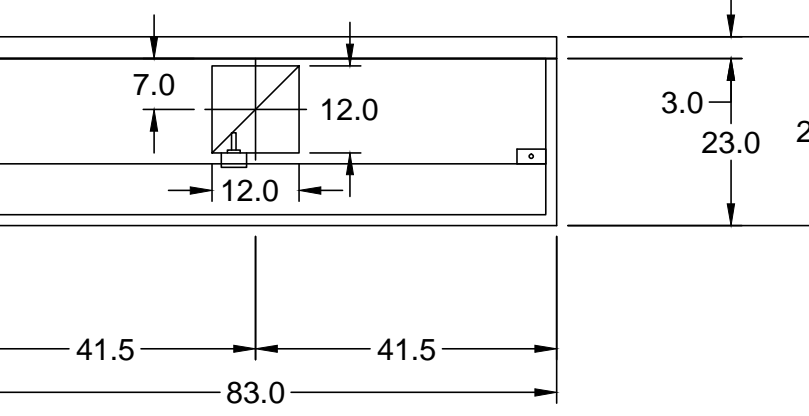
MARK: GRILL HOOD - SECTION 1 PLAN VIEW



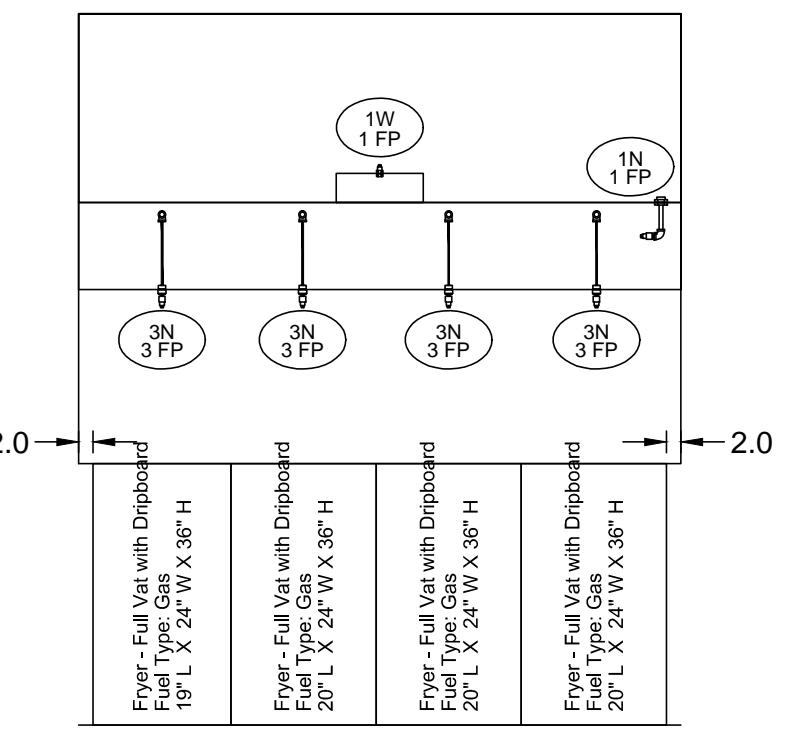
MARK: GRILL HOOD - SECTION 1 ELEVATION VIEW



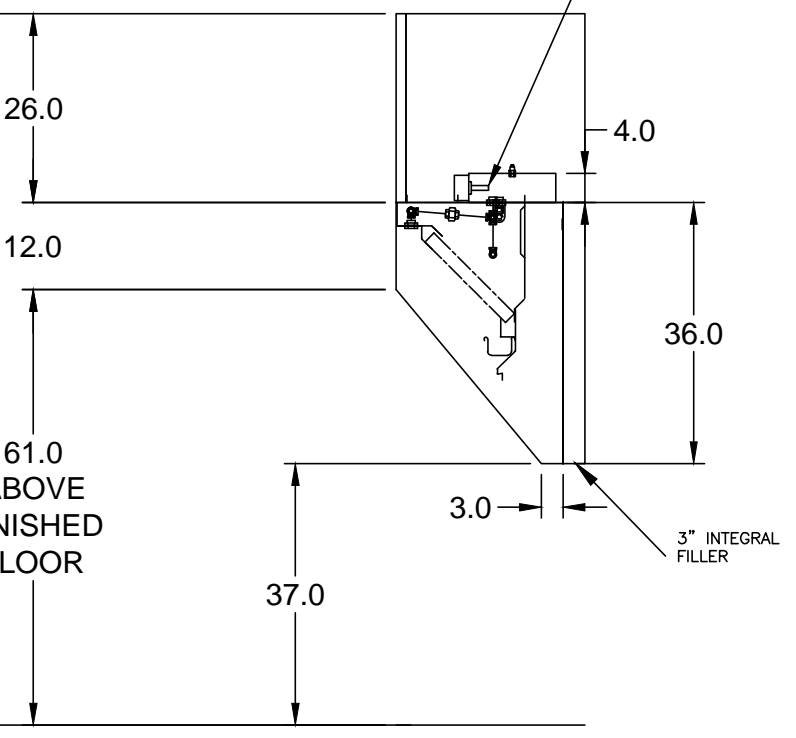
MARK: GRILL HOOD SECTION VIEW



MARK: FRYER HOOD - SECTION 1 PLAN VIEW

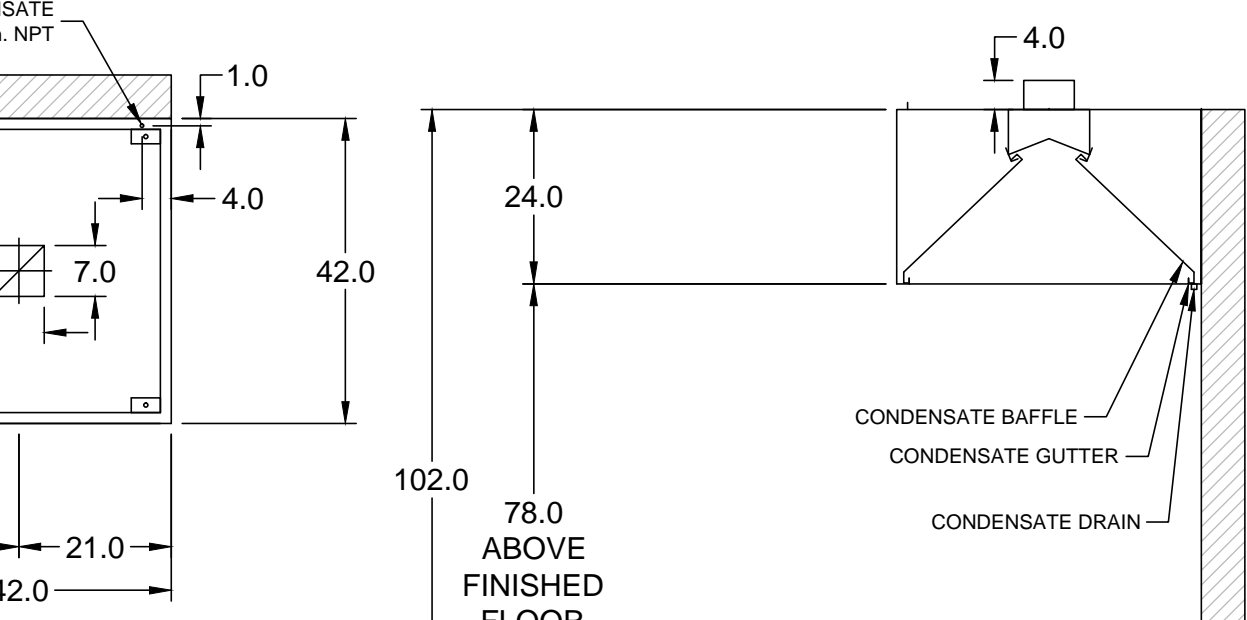
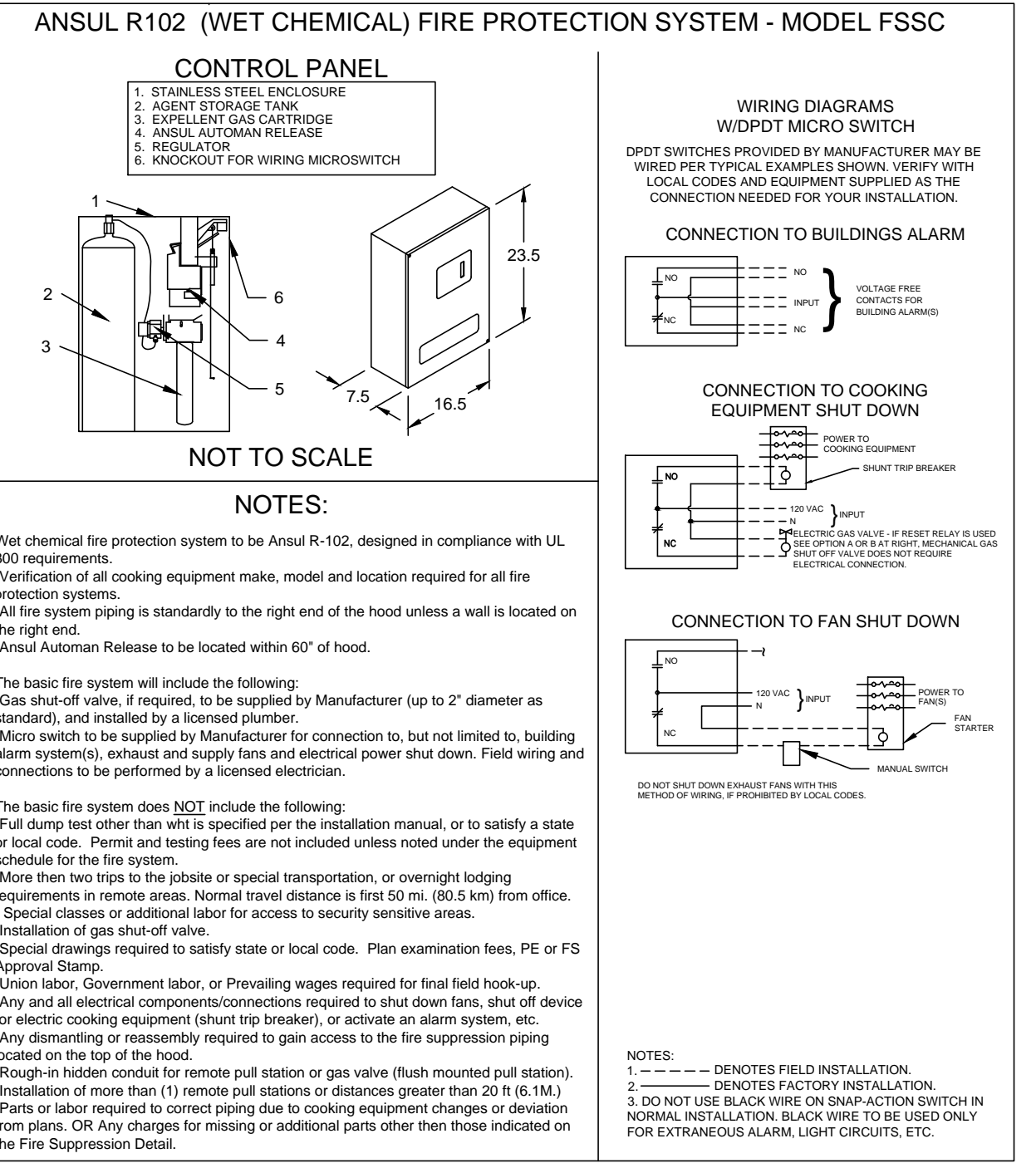


MARK: FRYER HOOD - SECTION 1 ELEVATION VIEW

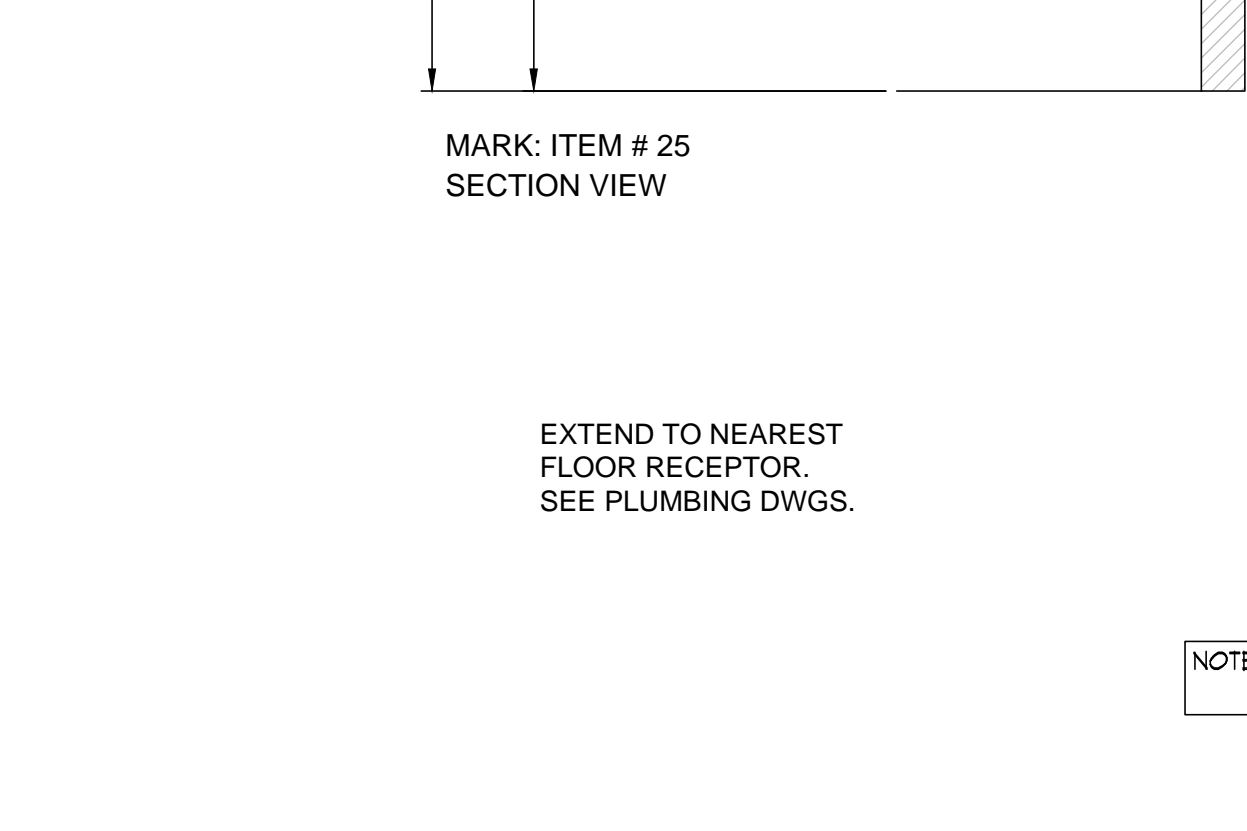


MARK: FRYER HOOD SECTION VIEW

EQUIPMENT SCHEDULE										EQUIPMENT SCHEDULE									
TYPE 2 KITCHEN HOOD					MARK: ITEM # 25					TYPE 1 KITCHEN HOOD (HOOD #2)					MARK: GRILL HOOD				
HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	SECTION LENGTH	WIDTH	HEIGHT	GREASE CUP OR DRAIN	HOOD TEMP. RATING	TOTAL WEIGHT	SECTION LOCATION	HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	SECTION LENGTH	WIDTH	HEIGHT	GREASE CUP OR DRAIN	HOOD TEMP. RATING	TOTAL WEIGHT	SECTION LOCATION		
1	XD3-33-S CONDENSATE HOOD - DOUBLE BAFFLE	42.0 IN.	42 IN.	24 IN.	RIGHT	NA	224.0 LBS.	NA	1	XGER-33-S SINGLE WALL EXHAUST ONLY LOW PROXIMITY	64 IN.	TOP 23 IN. FRONT 12 IN. BOT 8 IN. BACK 36 IN.	24 IN.	RIGHT	600 DEG F	136.0 LBS.	SINGLE		

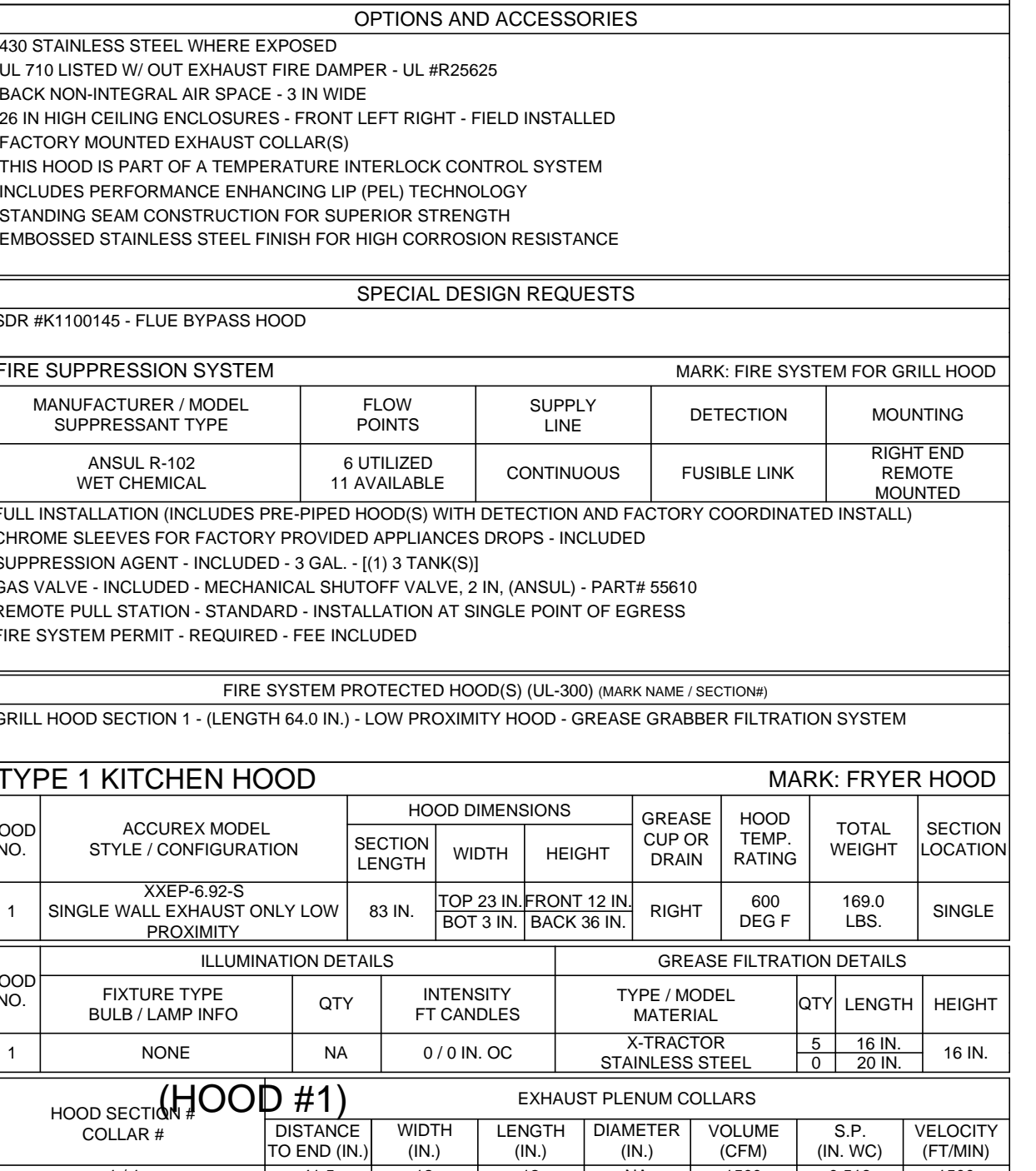


MARK: ITEM # 25 - SECTION 1 PLAN VIEW

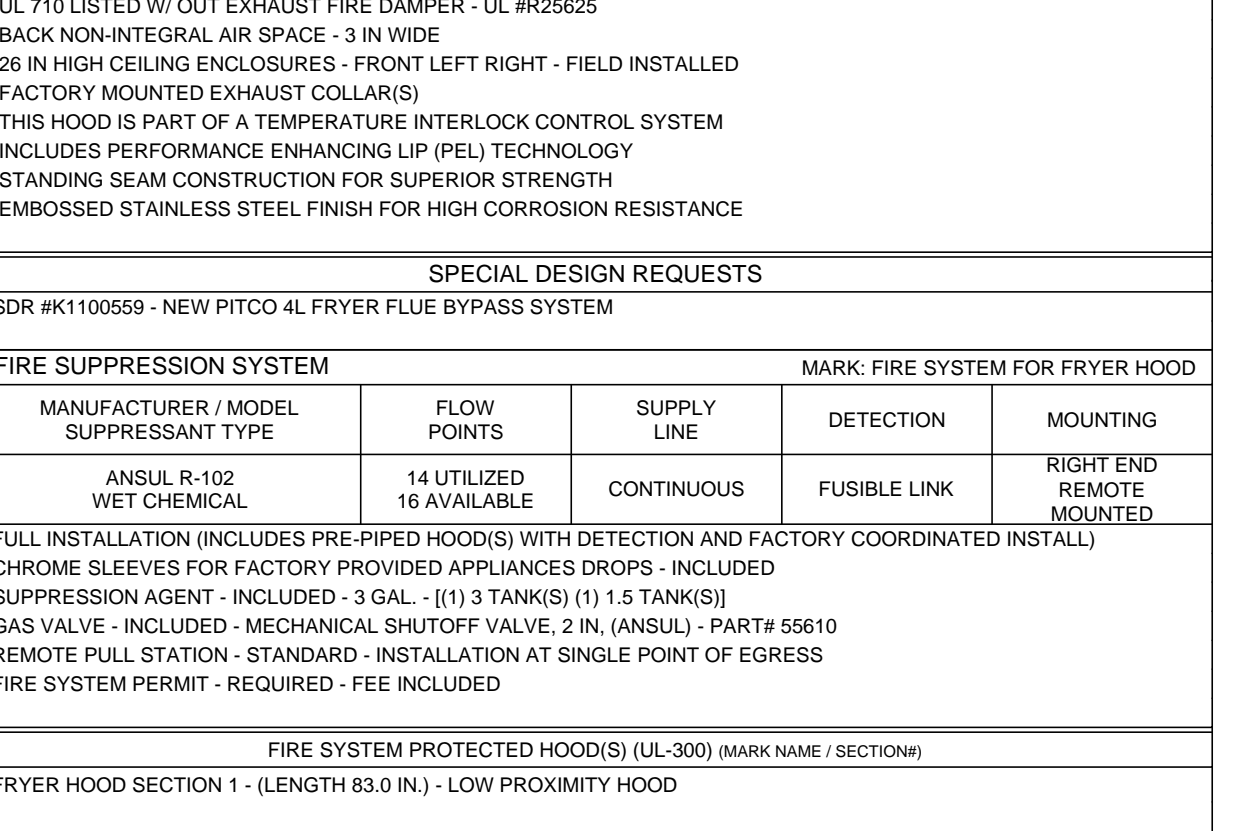


MARK: ITEM # 25 SECTION VIEW

EQUIPMENT SCHEDULE										EQUIPMENT SCHEDULE									
TYPE 1 KITCHEN HOOD (HOOD #1)					MARK: FRYER HOOD					TYPE 2 KITCHEN HOOD					MARK: GRILL HOOD				
HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	SECTION LENGTH	WIDTH	HEIGHT	GREASE CUP OR DRAIN	HOOD TEMP. RATING	TOTAL WEIGHT	SECTION LOCATION	HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	SECTION LENGTH	WIDTH	HEIGHT	GREASE CUP OR DRAIN	HOOD TEMP. RATING	TOTAL WEIGHT	SECTION LOCATION		
1	XPER-33-S SINGLE WALL EXHAUST ONLY LOW PROXIMITY	83 IN.	TOP 23 IN. FRONT 12 IN. BOT 3 IN. BACK 36 IN.	24 IN.	RIGHT	600 DEG F	169.0 LBS.	SINGLE	1	XD3-33-S CONDENSATE HOOD - DOUBLE BAFFLE	42.0 IN.	42 IN.	24 IN.	RIGHT	NA	224.0 LBS.	NA		



MARK: FRYER HOOD SECTION 1 PLAN VIEW



MARK: FRYER HOOD SECTION VIEW

NOTE: COOKING EQUIPMENT SHALL BE INSTALLED AND VENTED IN ACCORDANCE WITH FBCM 4 NFPA 96.

NOTE: ALL HOODS SHALL HAVE 3" WALL STANDOFF PER DETAIL ON SHEET M2.

NOTE: THE DESIGN, INSTALLATION, OPERATION, INSPECTION, AND MAINTENANCE OF ALL PUBLIC AND PRIVATE COMMERCIAL COOKING EQUIPMENT SHALL COMPLY WITH CHAPTER FFFC 150.01 AND NFPA 96, STANDARD FOR VENTILATION CONTROL AND FIRE PROTECTION OF COMMERCIAL COOKING OPERATIONS. KITCHEN HOOD PLANS, COMPLIANT WITH THE ABOVE, SHALL BE PERMITTED SEPARATELY.

REVISIONS BY

OLIVER ARCHITECTS  
A 50109291  
Member of the American Institute of Architects  
1004 Indiana Avenue Palm Harbor, FL 34683  
Phone 727.781.7525  
www.oliverarchitects.com

ALL INFORMATION CONTAINED HEREIN IS THE SOLE PROPERTY OF OLIVER ARCHITECTS. ALL RIGHTS RESERVED.

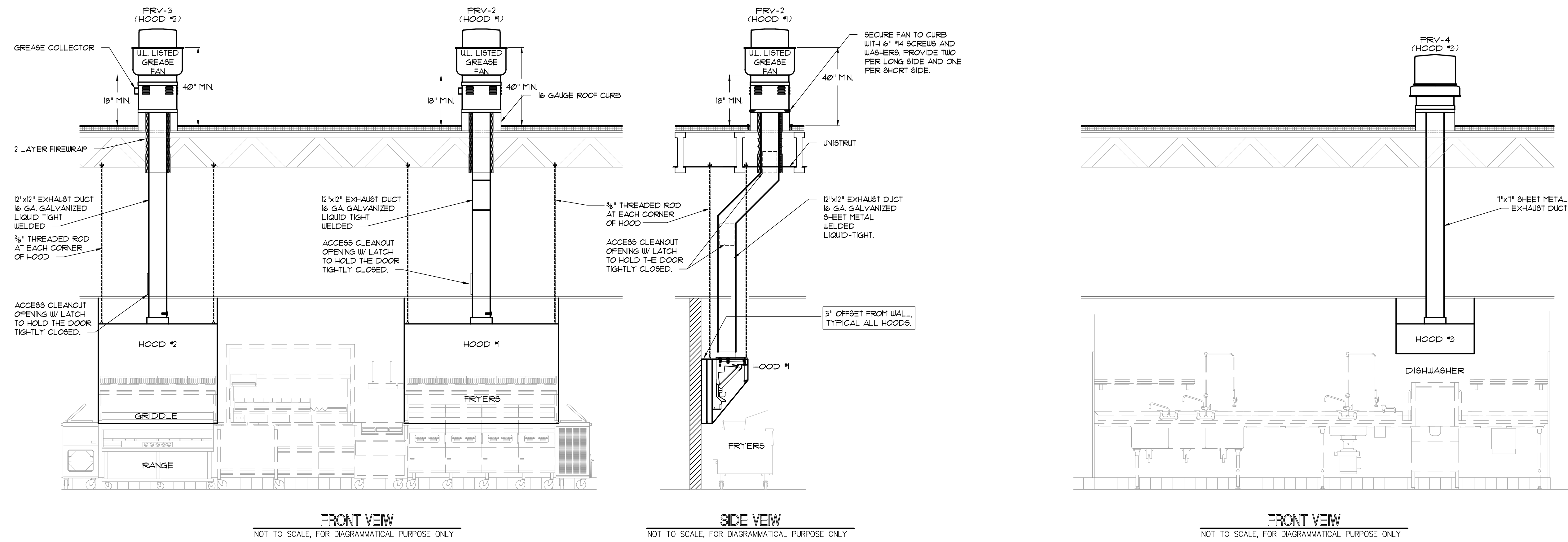
Garland Patterson, P.E.  
FL Lic. No.: 14175  
FEB. 17, 2023

MDCI FLORIDA, INC.  
4000 South Florida Avenue, Suite 300  
Safety Harbor, Florida 34686  
Engineering Business No. 97024  
Professional Seal No. 20005  
© Copyright, 2023 • Project No. 23004

New Free Standing  
Cantaro's  
655 West Granada Boulevard  
Ormond Beach, Florida 32174  
Volusia

Date: 02.17.23  
Scale: AS NOTED  
Project Mgr: DG  
Drawn: BMD  
Job: 22-131  
Sheet  
M3



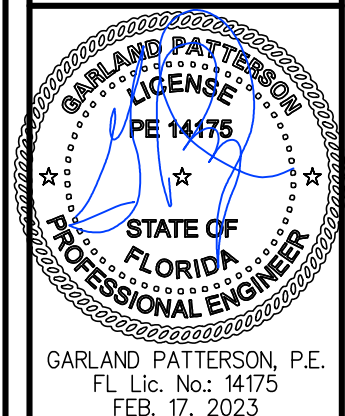


NOTE:  
 THE DESIGN, INSTALLATION, OPERATION, INSPECTION, AND MAINTENANCE OF ALL PUBLIC AND PRIVATE COMMERCIAL COOKING EQUIPMENT SHALL COMPLY WITH CHAPTER FPPC 15011 AND NFPA 96, STANDARD FOR VENTILATION CONTROL AND FIRE PROTECTION OF COMMERCIAL COOKING OPERATIONS. KITCHEN HOOD PLANS, COMPLIANT WITH THE ABOVE, SHALL BE PERMITTED SEPARATELY.

REVISIONS	BY

**OLIVERI ARCHITECTS**  
 A 501(c)(3)  
 Member of the American Institute of Architects  
 1004 Indiana Avenue • Palm Harbor, FL 34683  
 Phone 727.781.7225  
 www.oliveriarchitects.com

ALL INFORMATION CONTAINED  
 IN THIS DRAWING IS THE  
 SOLE PROPERTY OF  
 OLIVERI ARCHITECTS.  
 ALL RIGHTS RESERVED.



GARLAND PATTERSON, P.E.  
 FL Lic. No.: 14175  
 FEB. 17, 2023

**MDCI**  
 MDCI FLORIDA, INC.  
 4000 South U.S. 1  
 Safety Harbor, Florida 34686  
 P: 727.941.1477  
 F: 727.941.1478  
 © Copyright 2023 • Project No. 23004

New Free Standing  
**Carlino's**  
 655 West Granada Boulevard  
 Ormond Beach, Florida 32174  
 Volusia County

Date: 02.17.23  
 Scale: AS NOTED  
 Project Mgr: DG  
 Drawn: BMD  
 Job: 22-131  
 Sheet

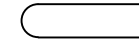
**M5**



FAN #1 CASRTU3-E.152-24MF-20T-DOAS - HEATER (RTU-1)

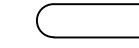
FAN #2 CASRTU3-E.152-24MF-20T-DOAS - HEATER (RTU-1)

NOTES:

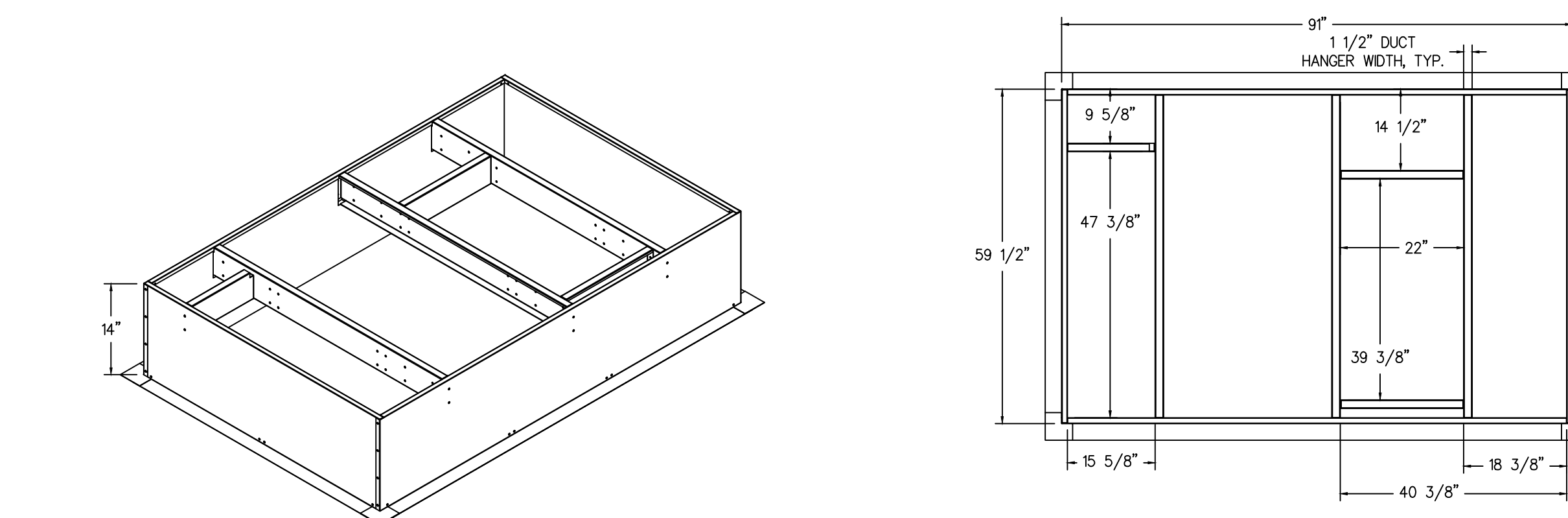
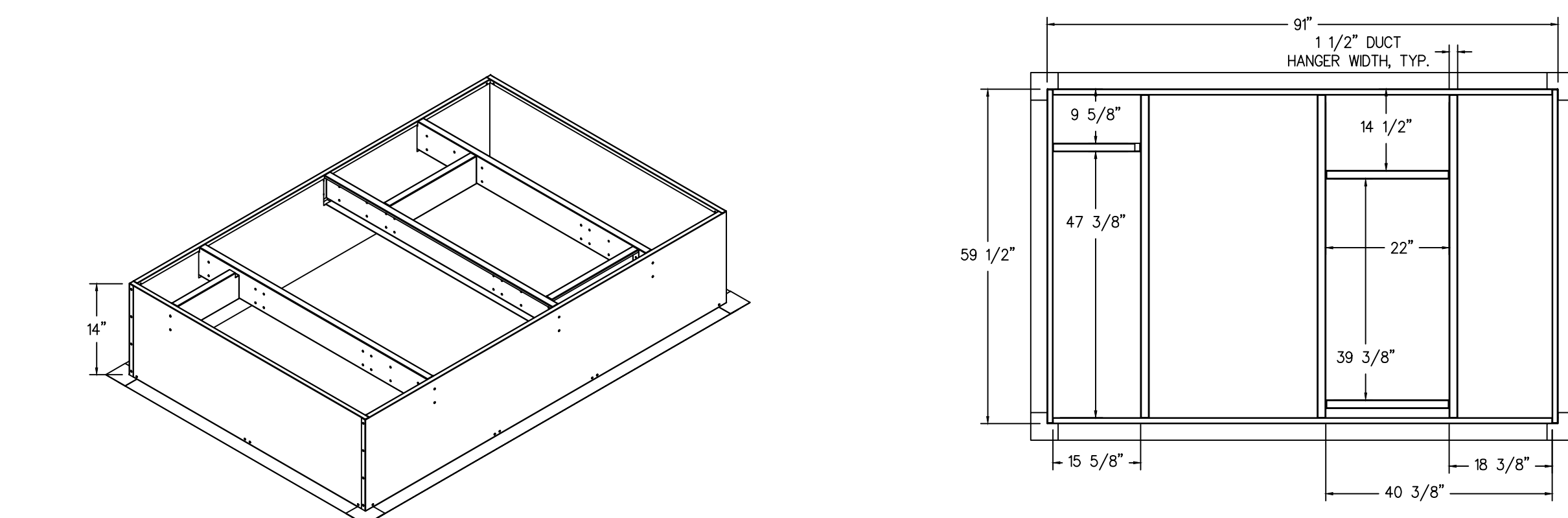
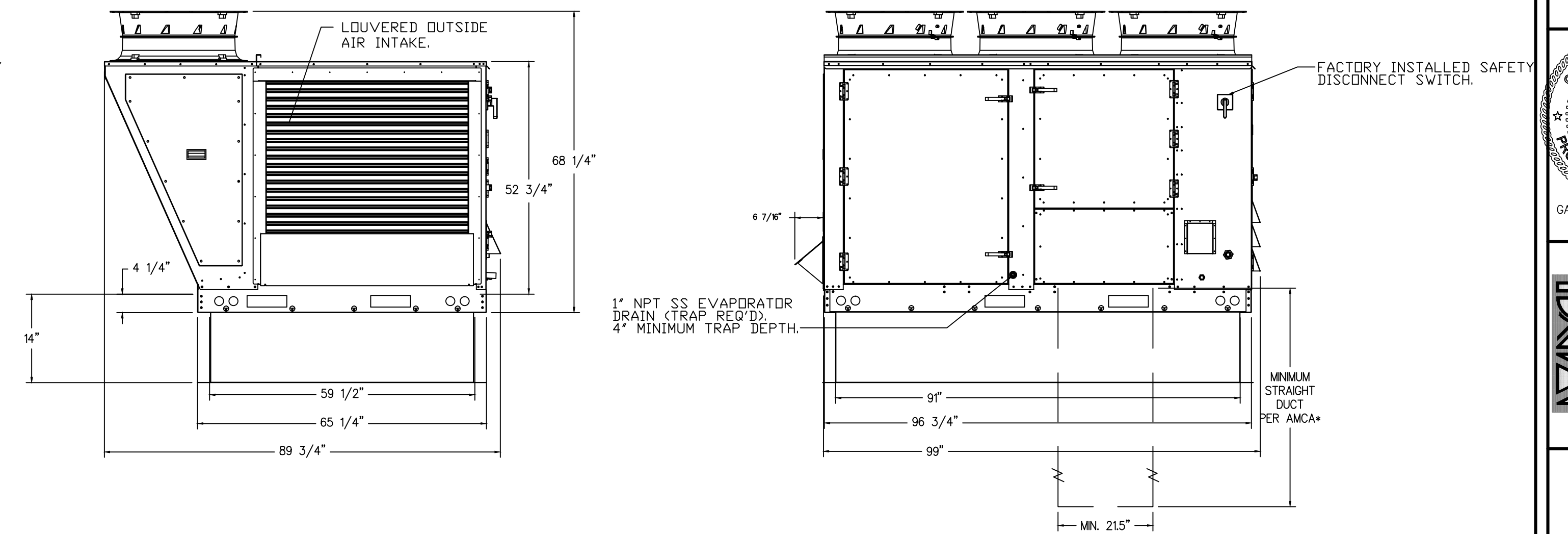
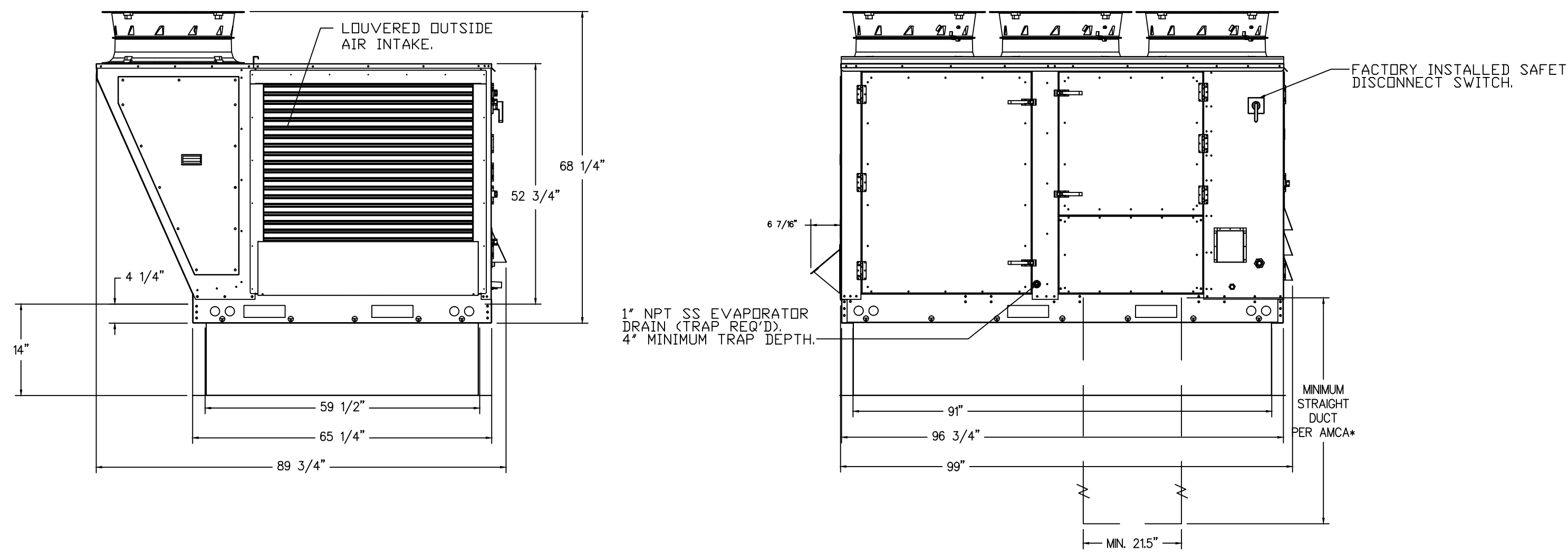
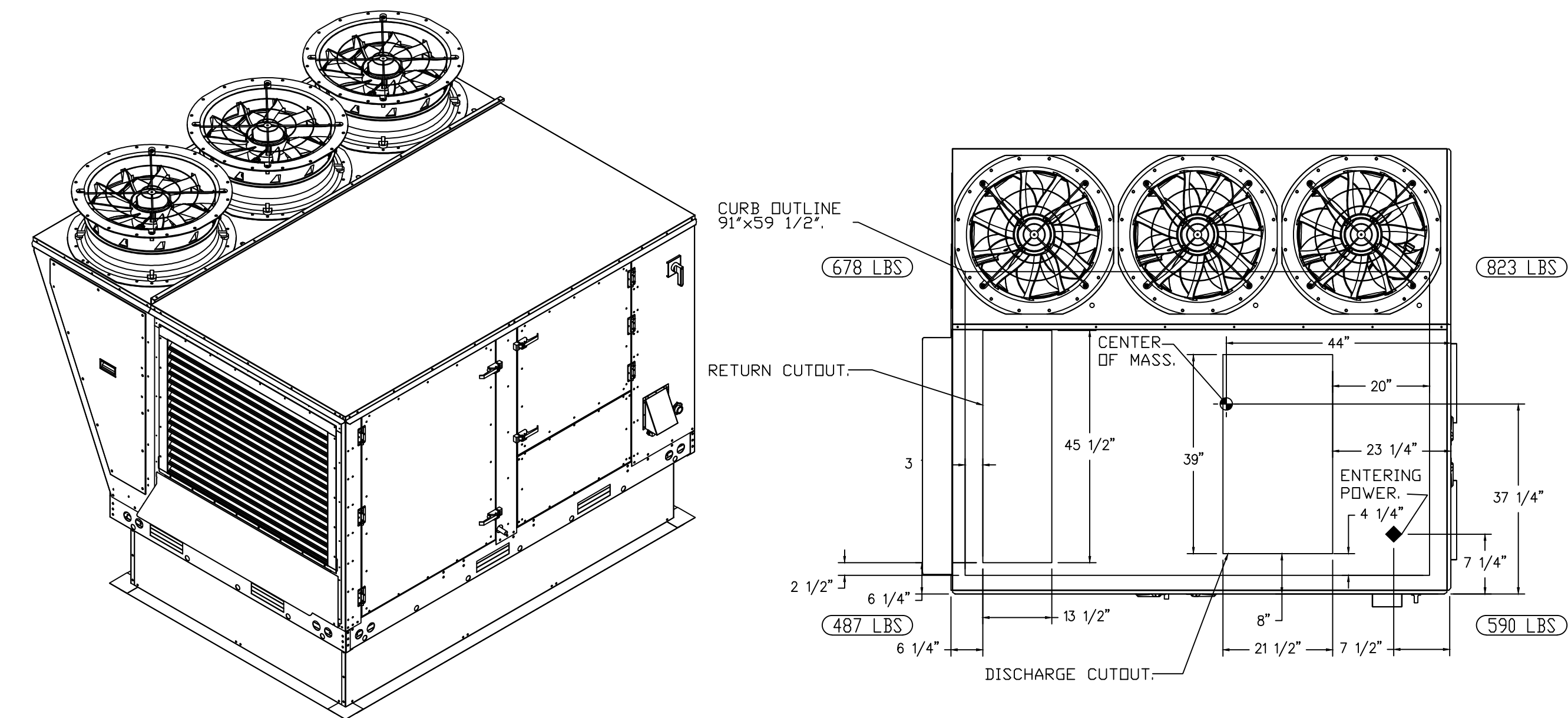
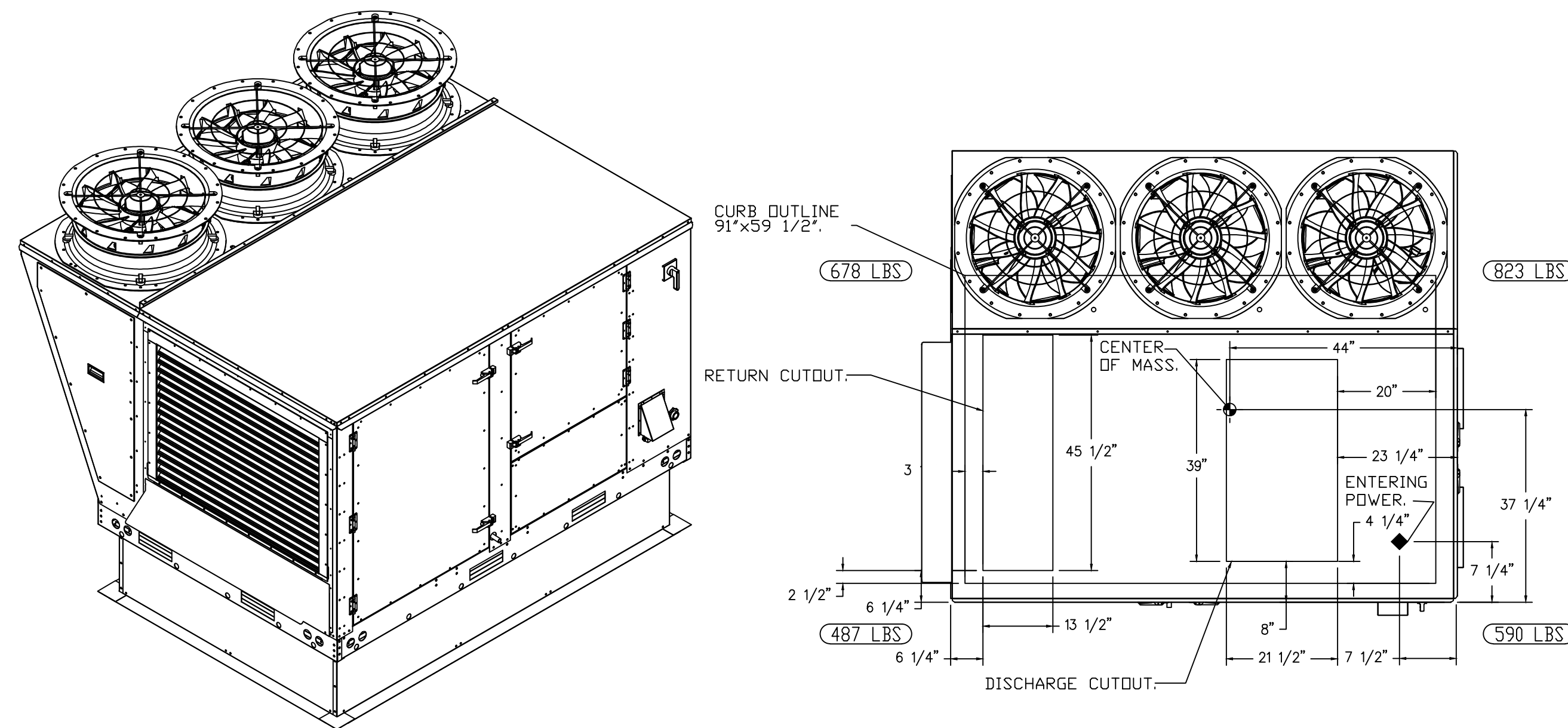
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
-  DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

\*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 215" x 39".

NOTES:

- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
-  DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

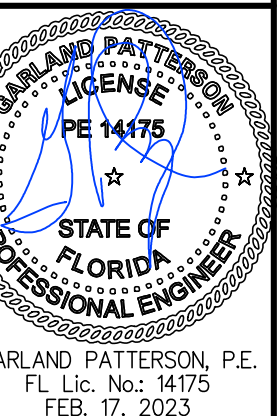
\*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 215" x 39".



REVISIONS	BY

**OLIVER ARCHITECTS**  
A 501(c)(3) Non-Profit  
Member of the American Institute of Architects  
1004 Indiana Avenue • Palm Harbor, FL 34683  
Phone 727.781.7525  
www.oliverarchitects.com

ALL INFORMATION CONTAINED  
HEREIN IS THE PROPERTY OF  
OLIVER ARCHITECTS. ALL RIGHTS RESERVED.

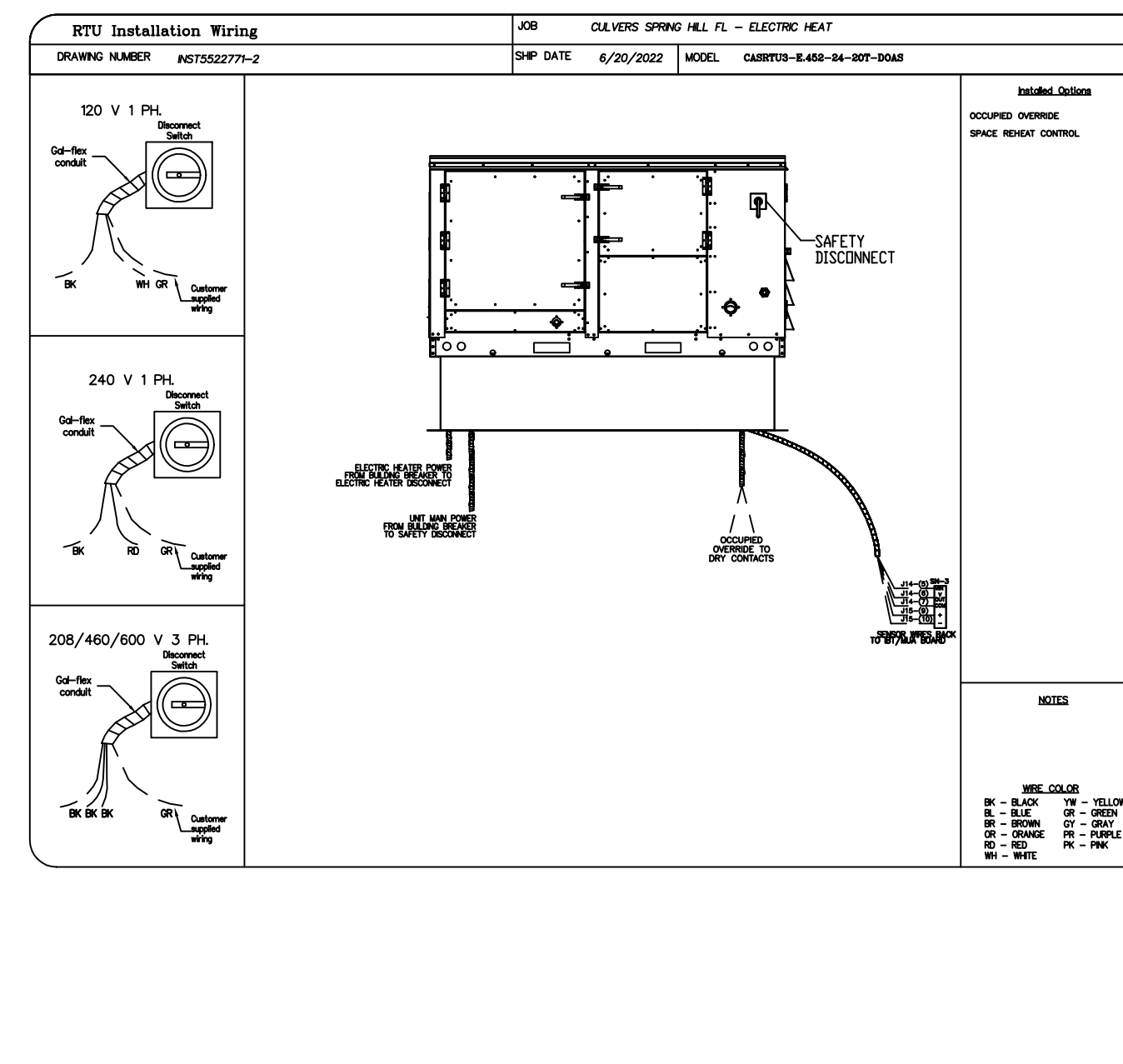
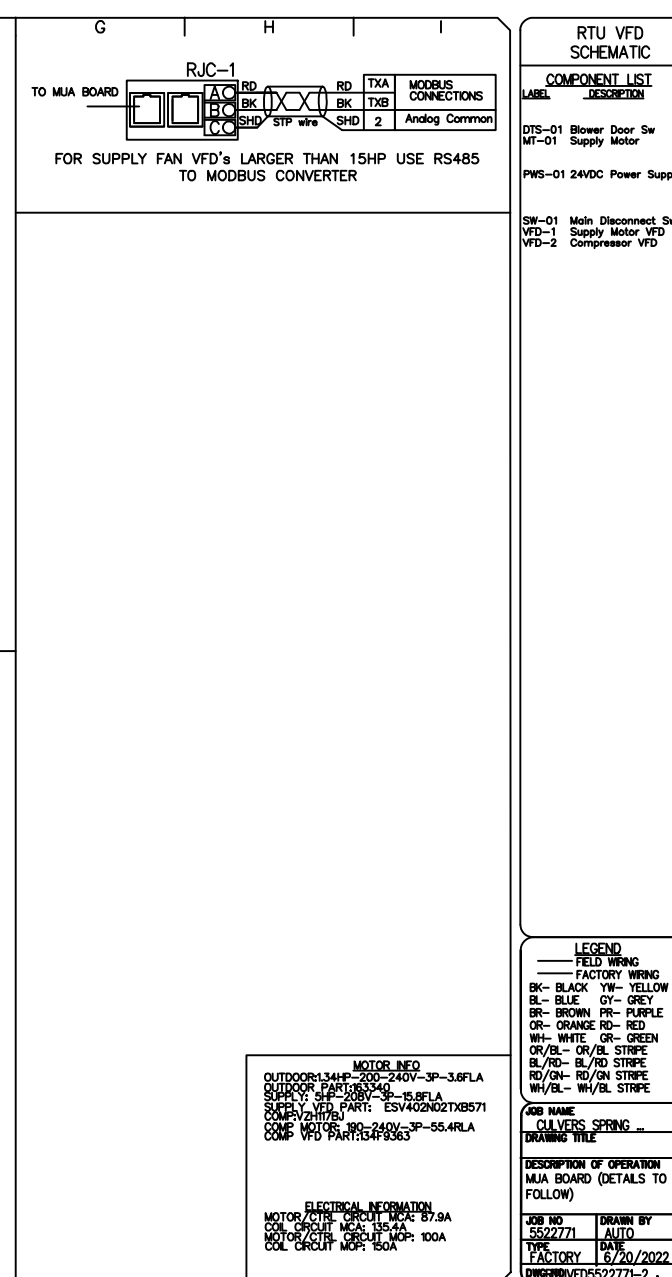
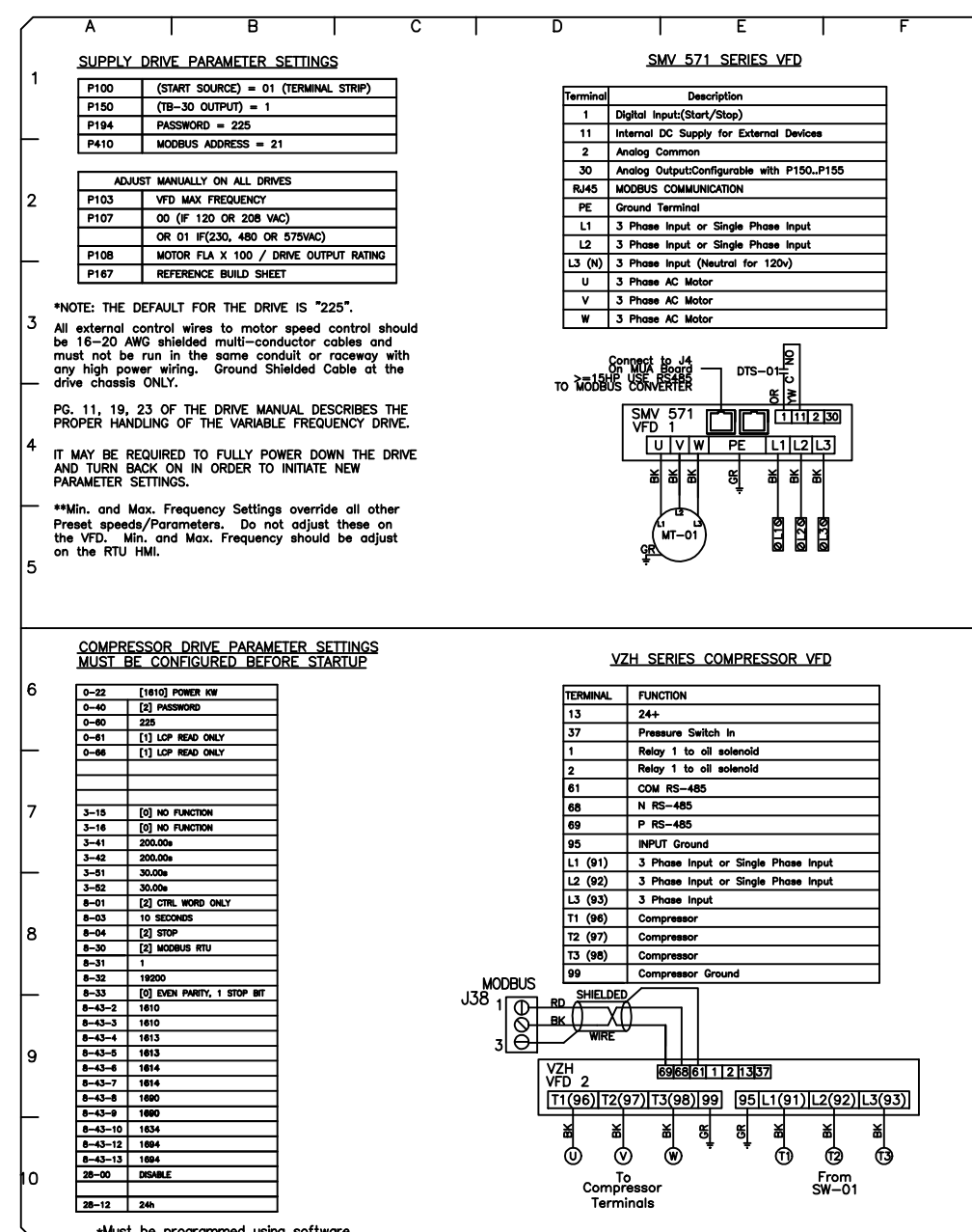
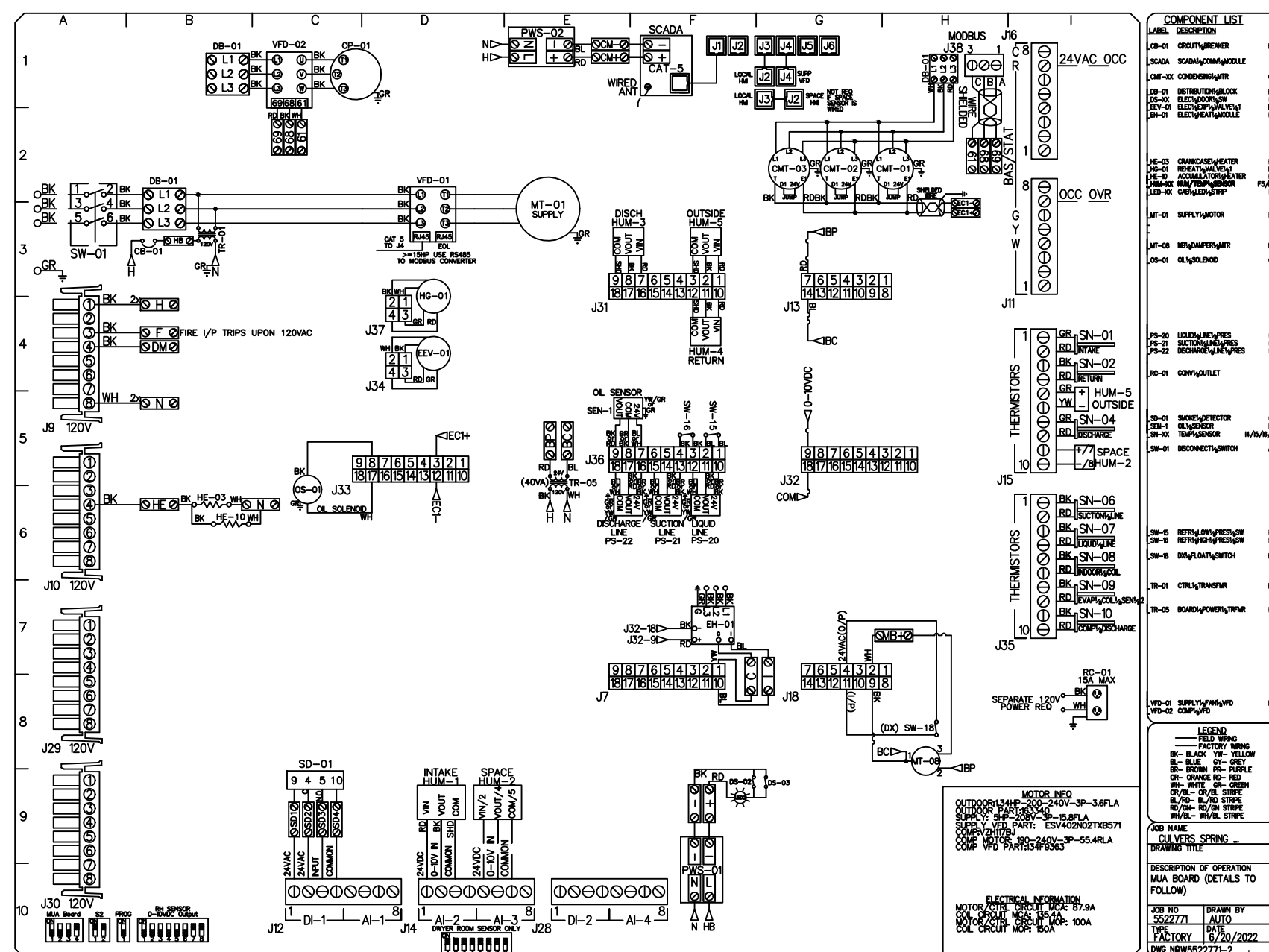
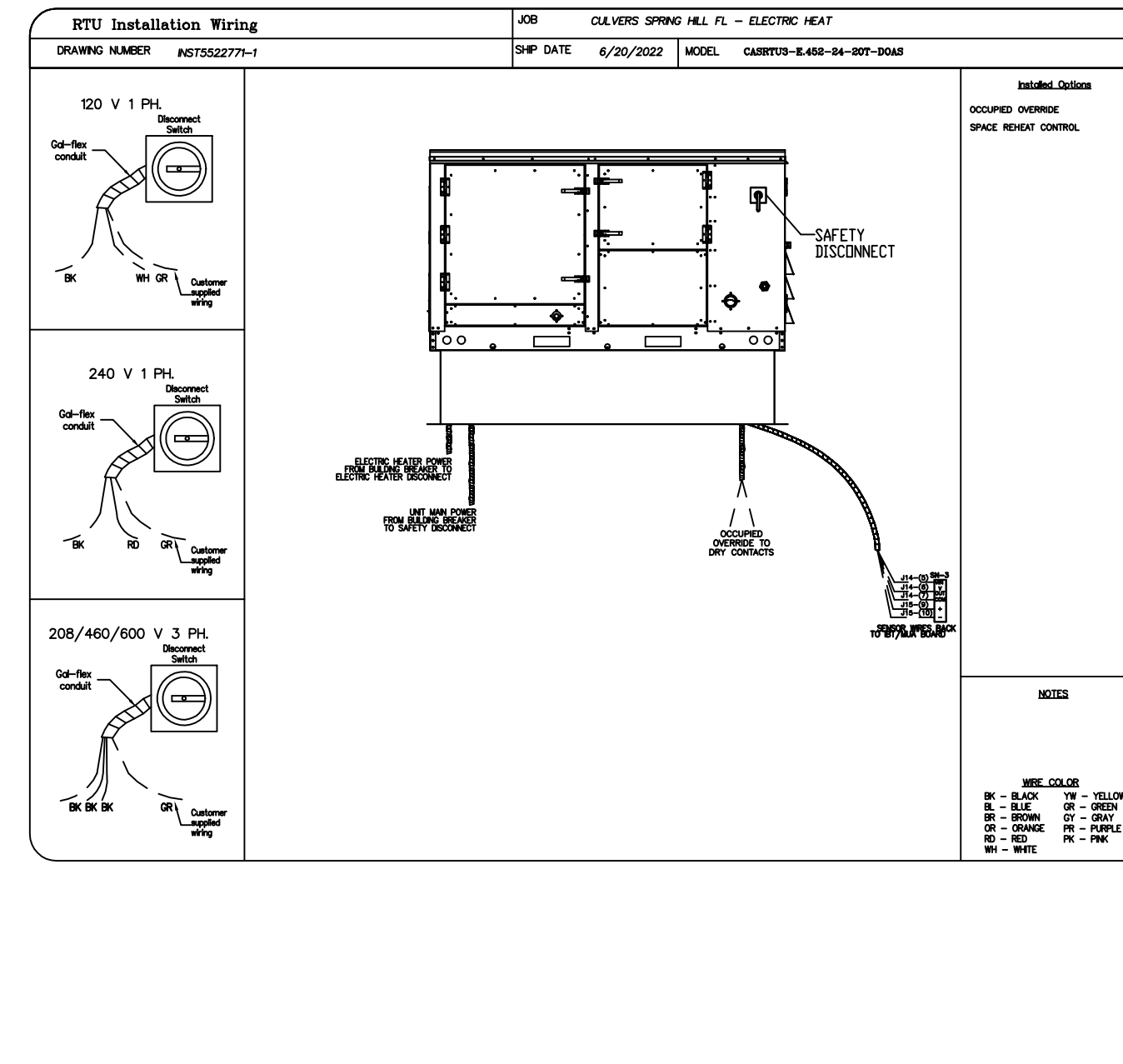
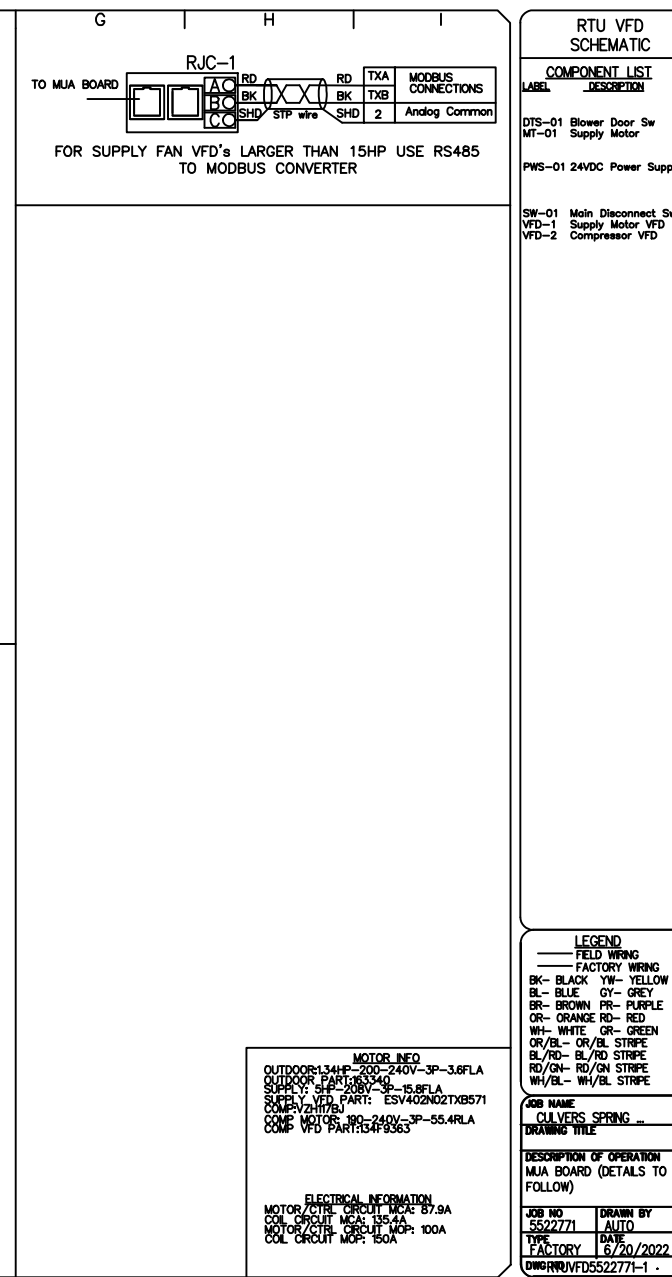
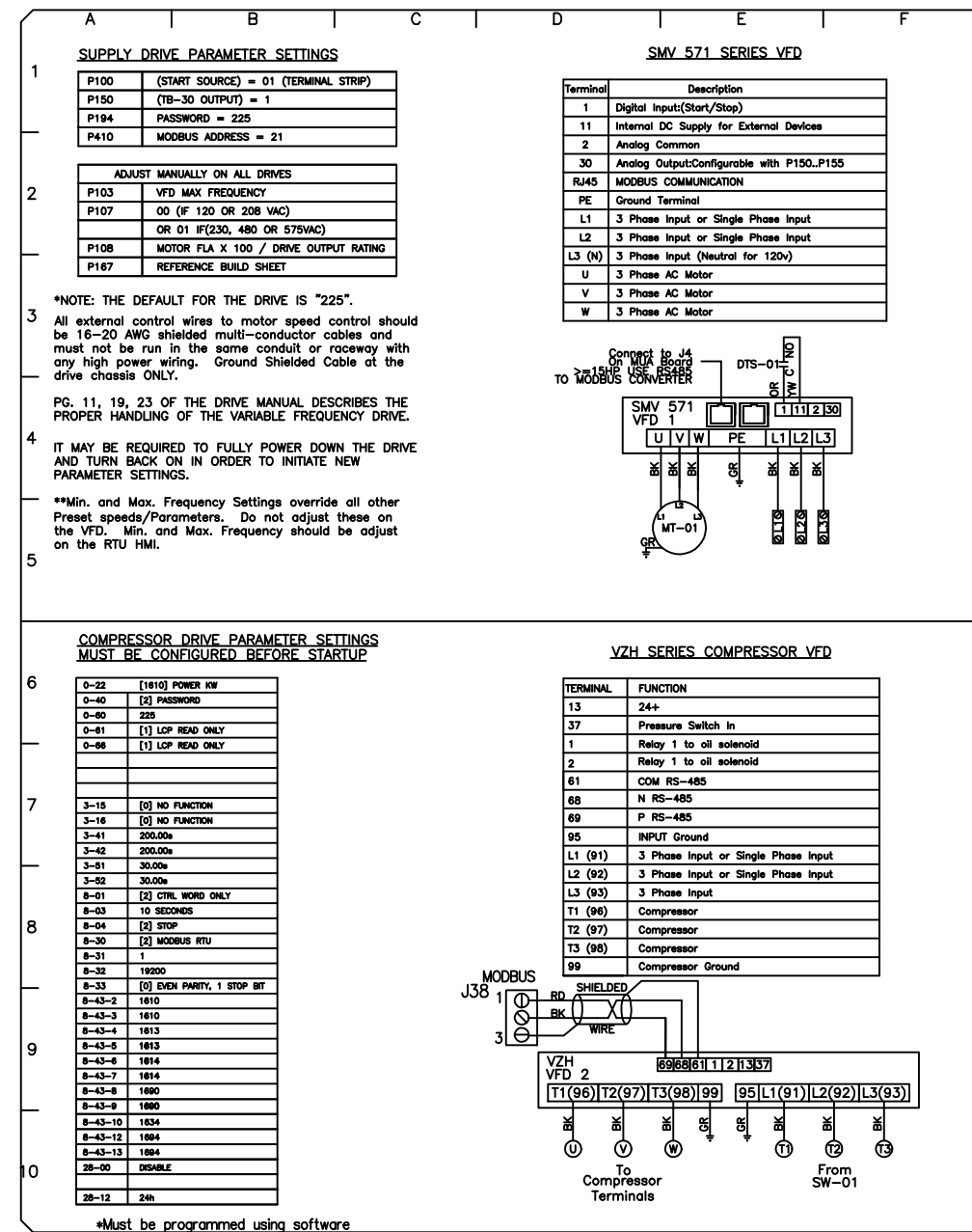
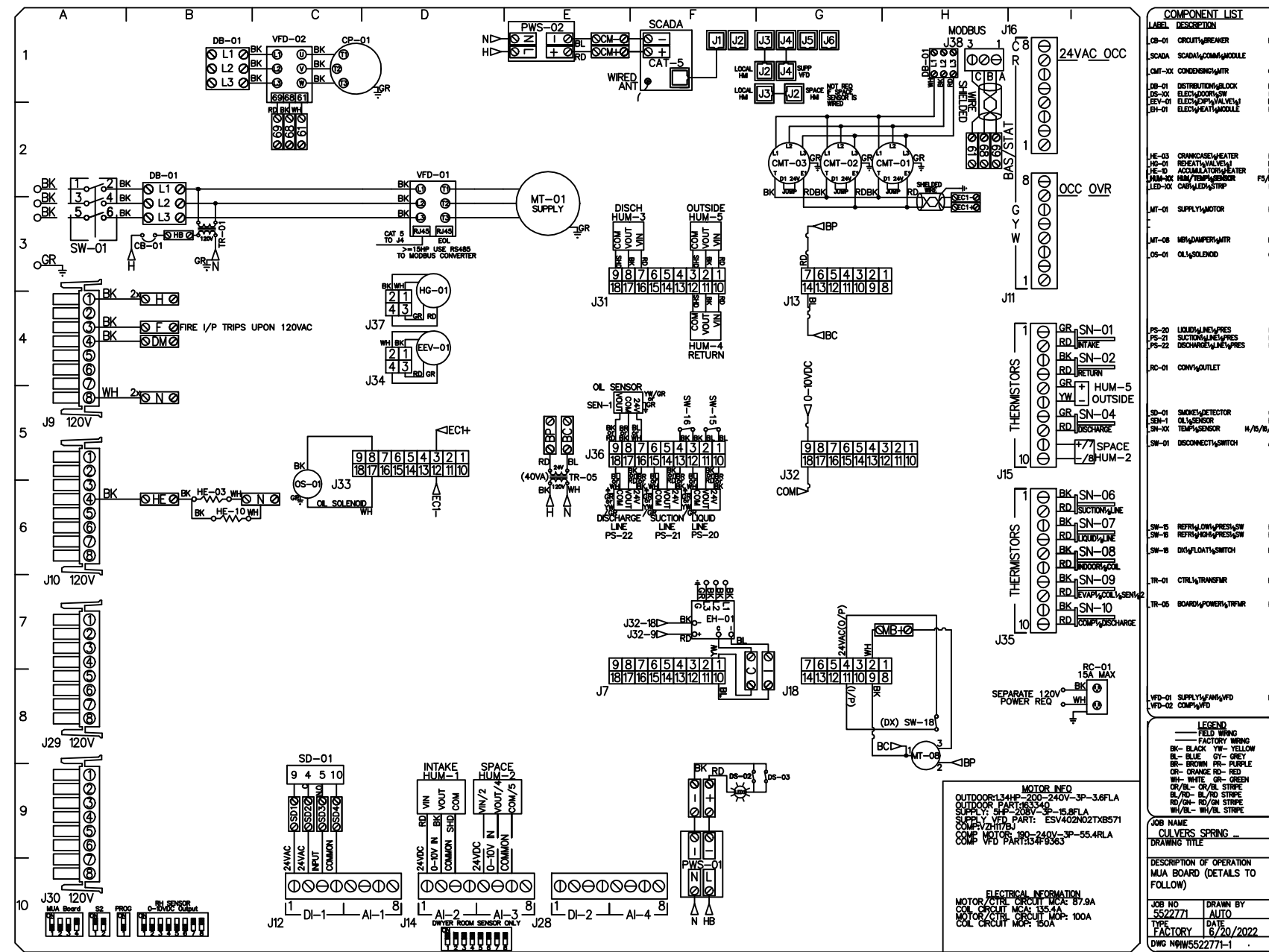


**MDCI**  
MDCI FLORIDA, INC.  
4200 South US Highway 1  
Safety Harbor, Florida 34686  
Engineering Business No. 97024  
Safety License No. 25005  
© Copyright 2023 • Project No. 23004

**Caltrans**  
New Free Standing  
655 West Granada Boulevard  
Ormond Beach, Florida 32174  
Volusia County

Date: 02.17.23  
Scale: AS NOTED  
Project Mgr: DG  
Drawn: BMD  
Job: 22-131  
Sheet

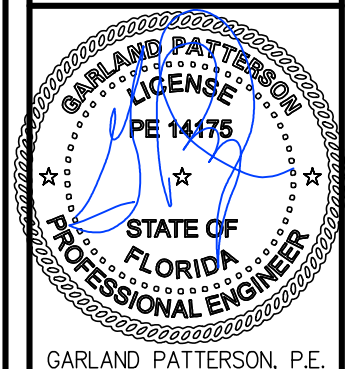
**M7**



REVISIONS	BY

**OLIVERI ARCHITECTS**  
 A 501(c)(3) Non-Profit  
 Member of the American Institute of Architects  
 1004 Indiana Avenue • Palm Harbor, FL 34683  
 Phone 727.781.7225  
 www.oliveriarchitects.com

ALL INFORMATION CONTAINED  
 HEREIN IS THE SOLE PROPERTY OF  
 OLIVERI ARCHITECTS  
 ALL RIGHTS RESERVED.



GARLAND PATTERSON, P.E.  
 FL Lic. No. 14175  
 FEB. 17, 2023

**MDCI**  
 MDCI FLORIDA, INC.  
 4000 West University Blvd., Suite 200  
 Safety Harbor, Florida 34685  
 An Engineering Business Co. of  
 © Copyright 2023 • Project No. 2304

**Caltrans**  
 New Free Standing  
 655 West Granada Boulevard  
 Ormond Beach, Florida 32174  
 Volusia County

Date: 02.17.23  
 Scale: AS NOTED  
 Project Mgr: DG  
 Drawn: BMD  
 Job: 22-131  
 Sheet

**M8**