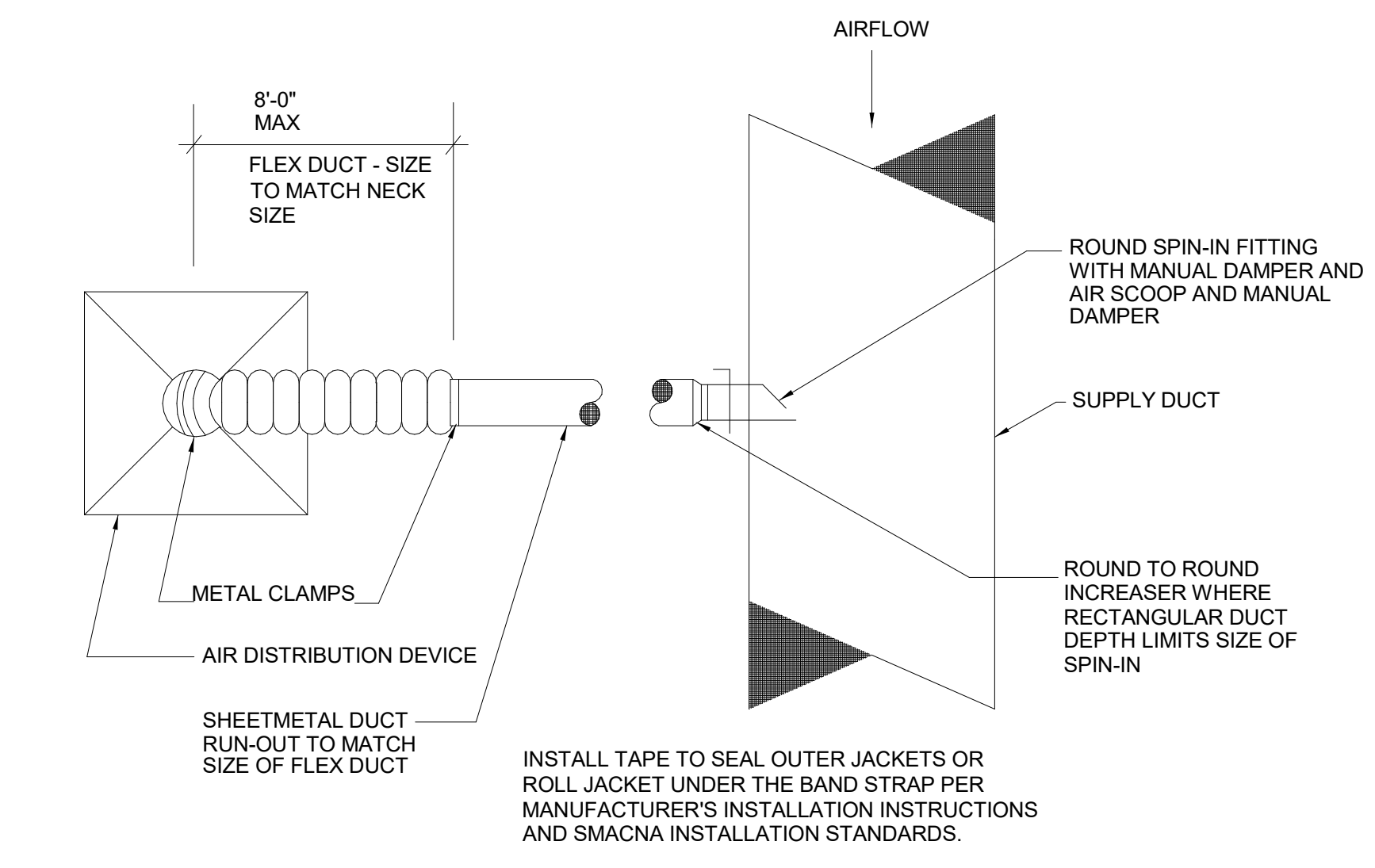


MINIMUM HANGER SIZES FOR ROUND DUCT

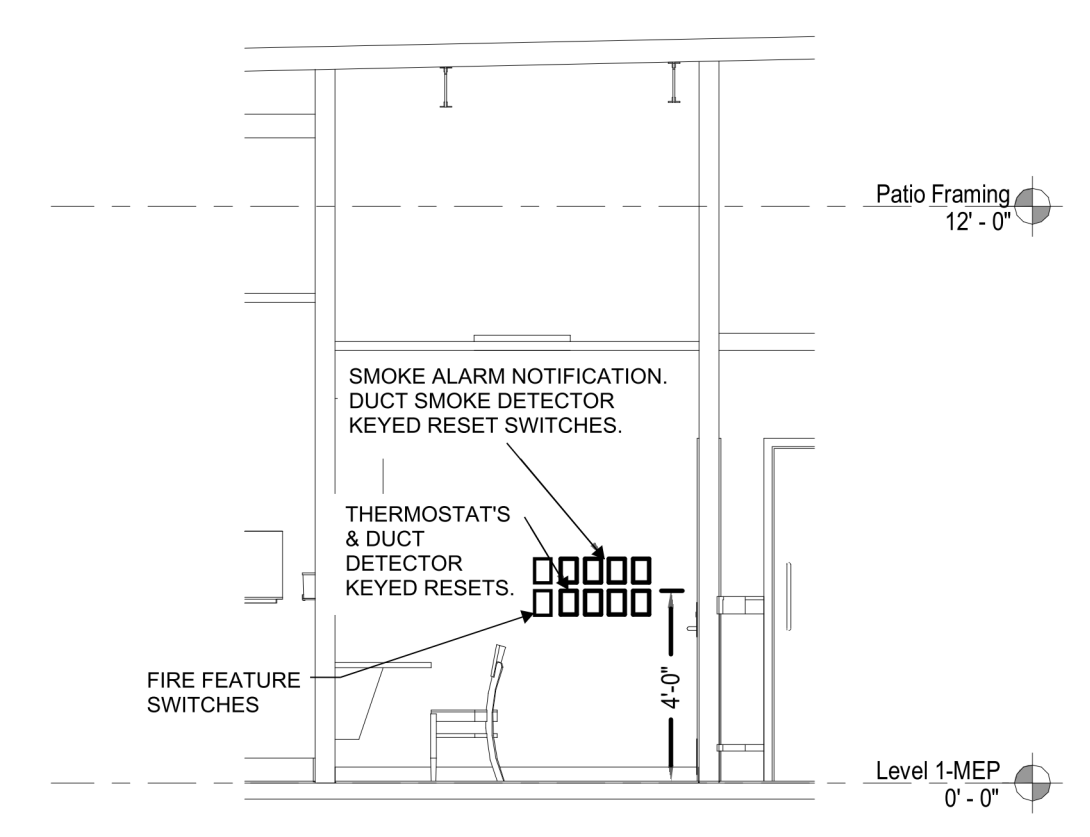
Dia.	Maximum Spacing	Wire Dia.	Rod	Strap
10" dia 250 mm dia	12' 3.7 m	One 12 ga. One 2.75 mm	1/4" 6.4 mm	1" x 22 ga. 25.4 x 0.85 mm
11-18"	12'	Two 12 ga. or One 8 ga.	1/4"	1" x 22 ga.
460 mm	3.7 m	One 4.27 mm	6.4 mm	25.4 x 0.85 mm
19-24" 610 mm	3.7 m	Two 10 ga. Two 3.51 mm	1/4" 6.4 mm	1" x 22 ga. 25.4 x 0.85 mm
25-36" 900 mm	3.7 m	Two 8 ga. Two 2.7 mm	3/8" 9.5 mm	1" x 20 ga. 25.4 x 1.00 mm
37-50" 1270 mm	3.7 m	Two 3/8" Two 9.5 mm	Two 1" x 20 ga. (2) 25.4 x 1.00 mm	
51-60" 1520 mm	3.7 m	Two 3/8" Two 9.5 mm	Two 1" x 18 ga. (2) 25.4 x 1.31 mm	
61-84" 2130 mm	3.7 m	Two 3/8" Two 9.5 mm	Two 1" x 16 ga. (2) 25.4 x 1.61 mm	



1 DIFFUSER CONNECTION DETAIL
MO.02 / NO SCALE

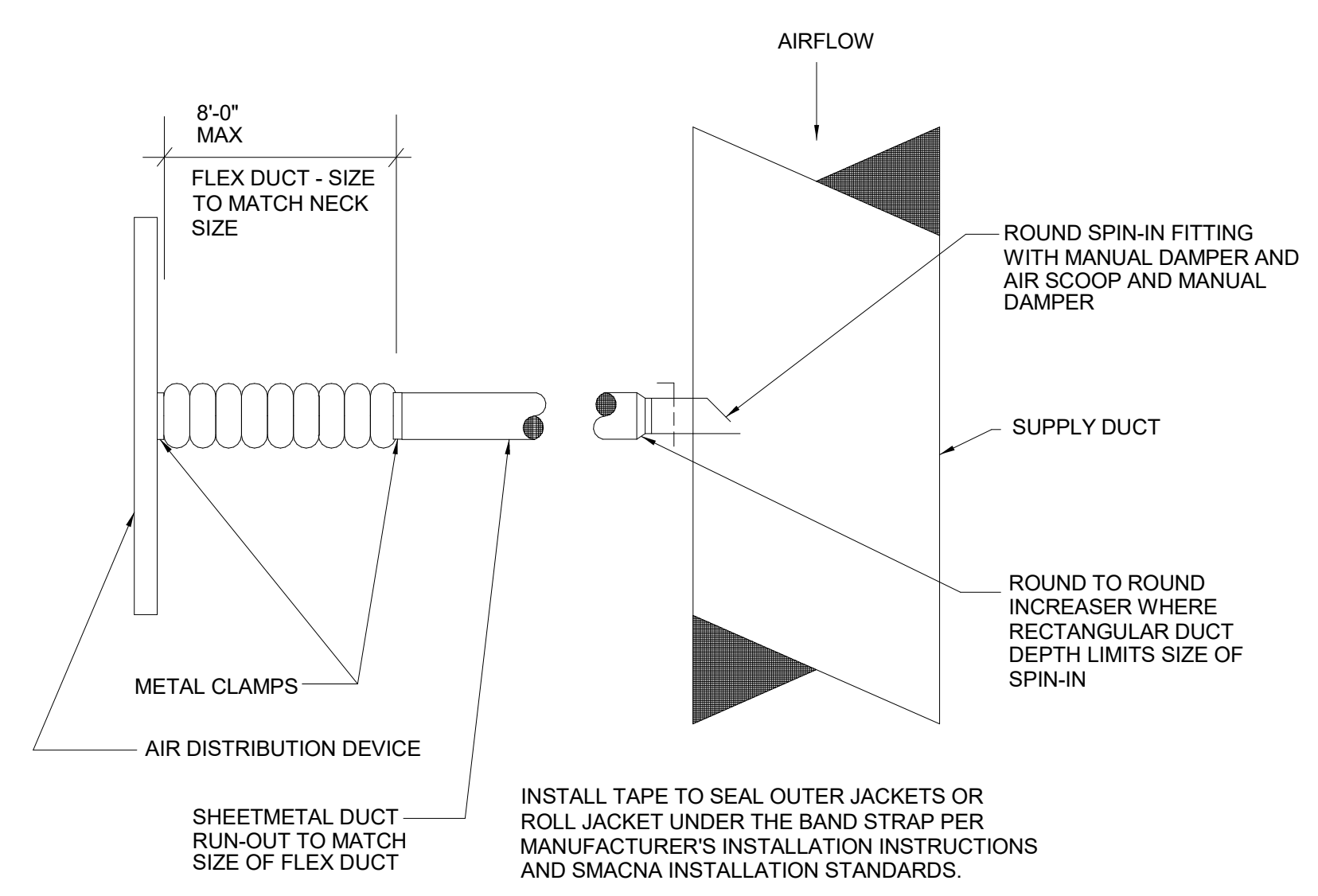
NOTES:
1) DUCTWORK SHALL BE INSTALLED LEVEL
2) SUPPLY DUCT WORK SHALL BE SPIRAL DUCTWORK WITH A PAINT GRIP FINISH
3) REGISTERS SHALL BE FLUSH MOUNTED

3 SPIRAL DUCT DETAIL
MO.02 / NO SCALE

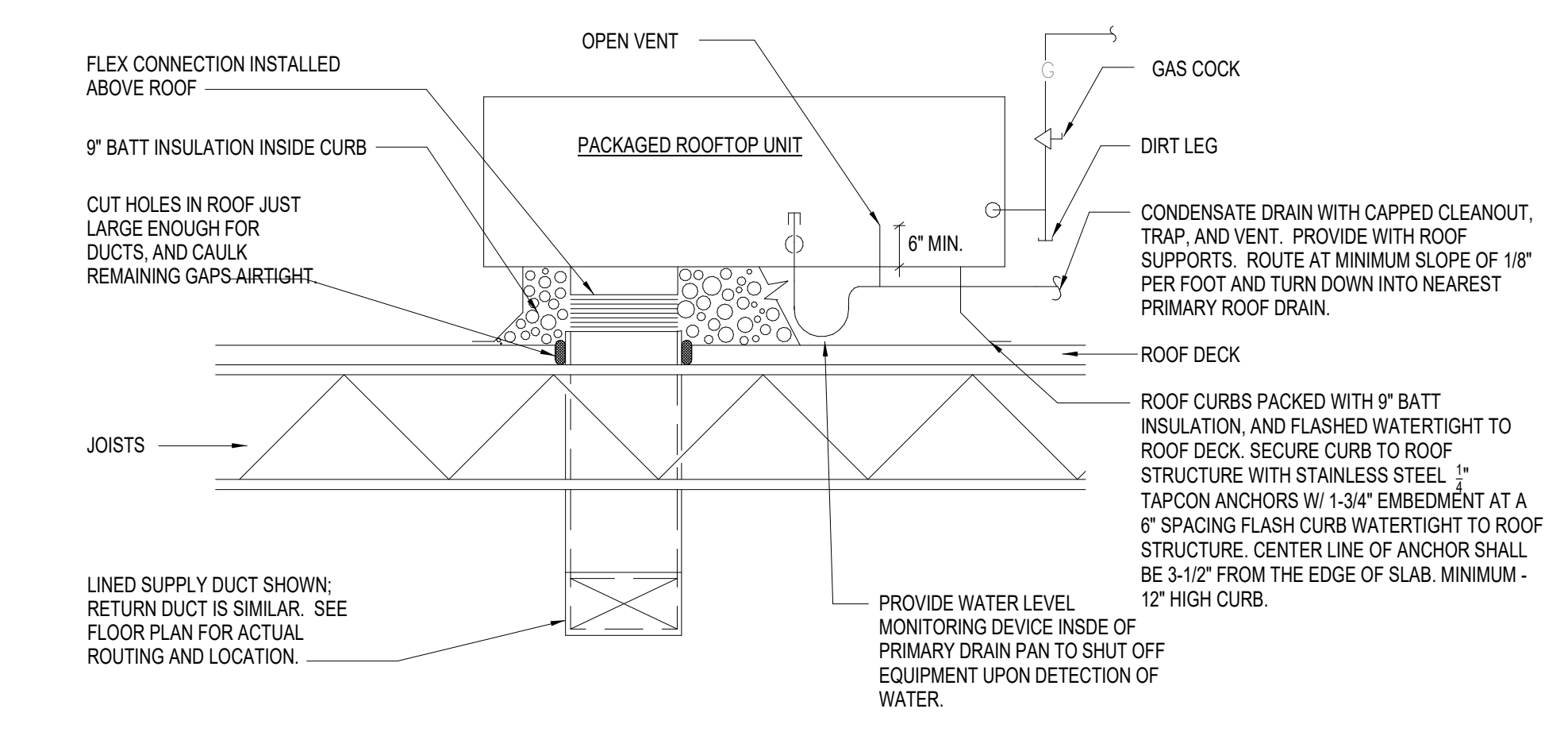


NOTES:
1. THERMOSTATS SHALL BE EQUAL TO TRANE MODEL XR402 FOR RTUS.
2. SENSORS SHALL BE EQUAL TO TRANE Z2SENS4004A.

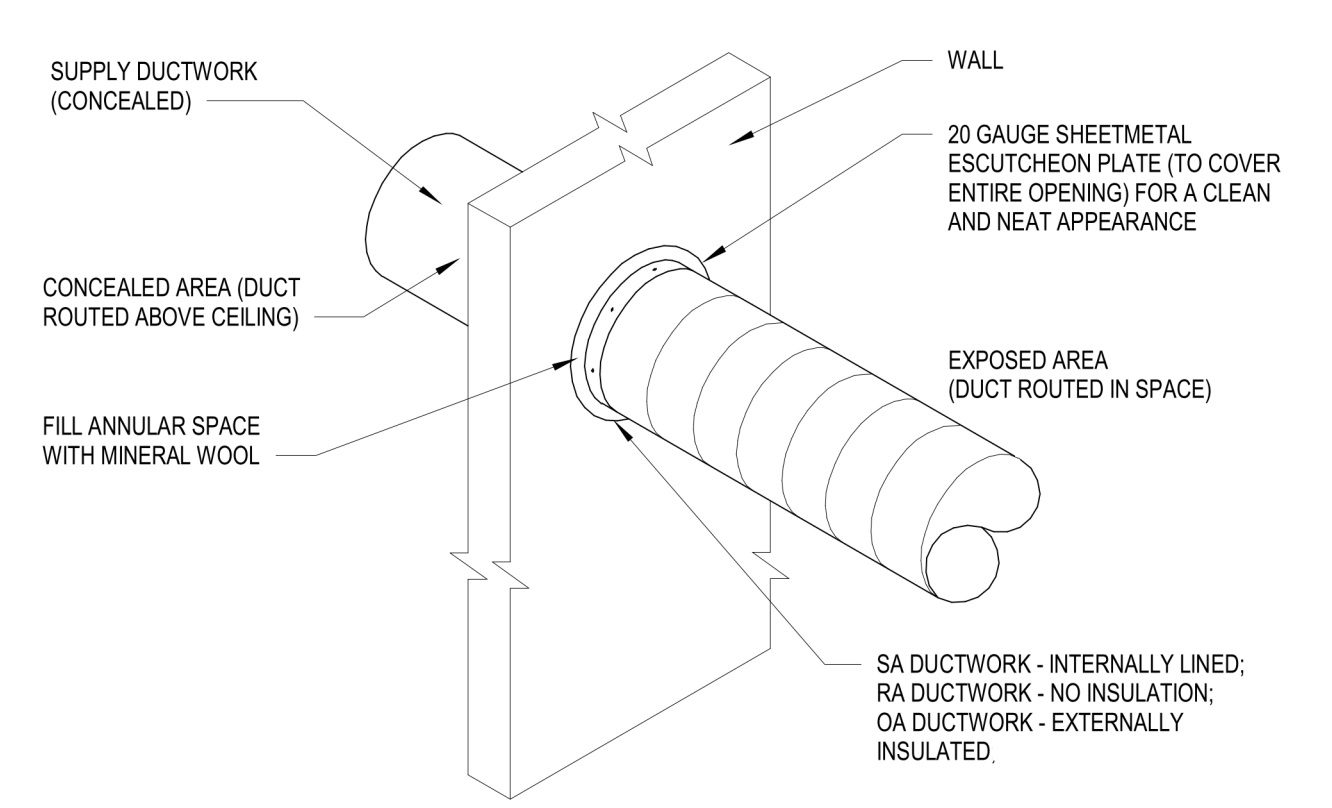
8 THERMOSTAT ELEVATION DETAIL AT OFFICE
MO.02 / NO SCALE



5 SLOT DIFFUSER CONNECTION DETAIL
MO.02 / NO SCALE

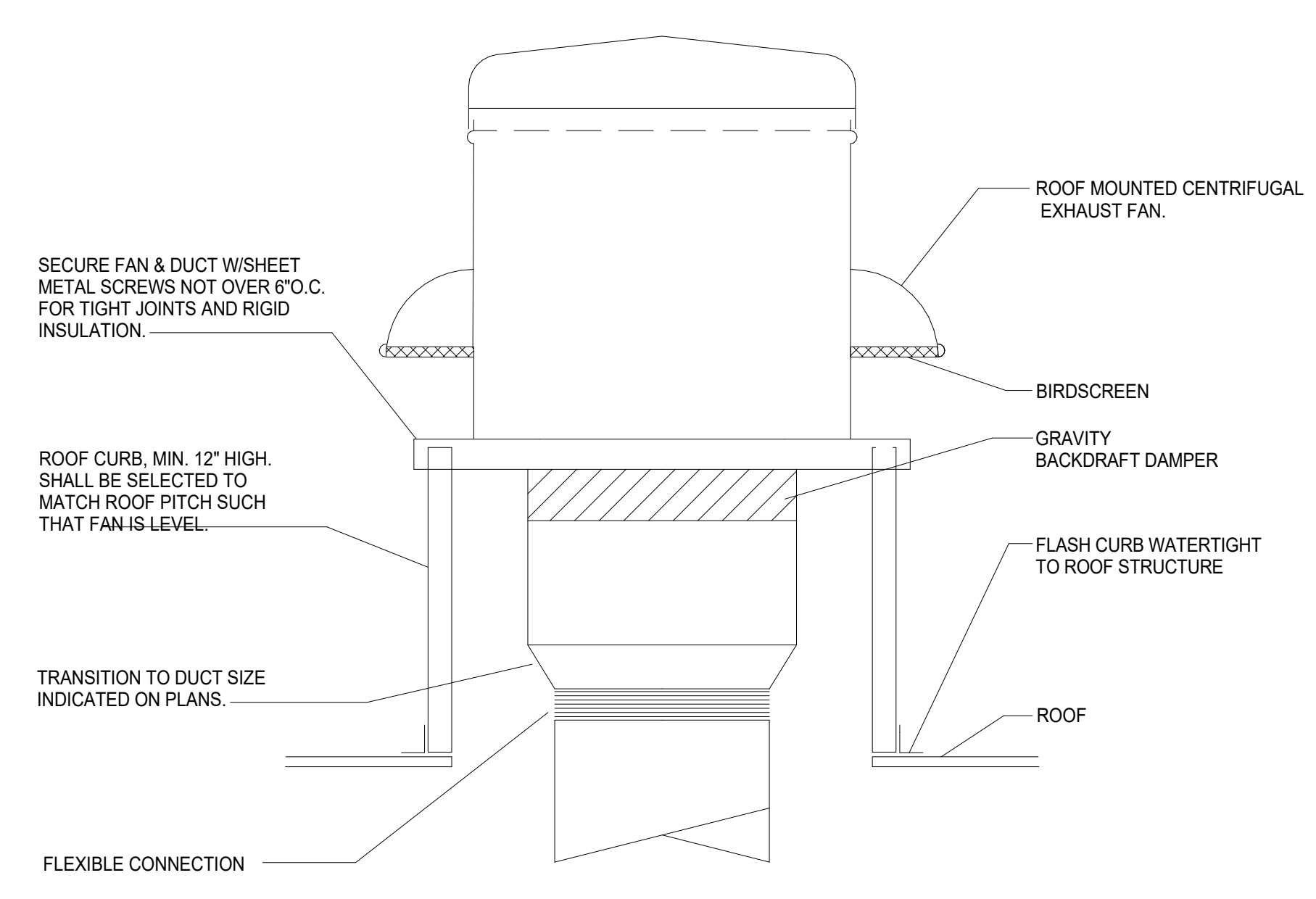


2 ROOFTOP UNIT DETAIL
MO.02 / NO SCALE

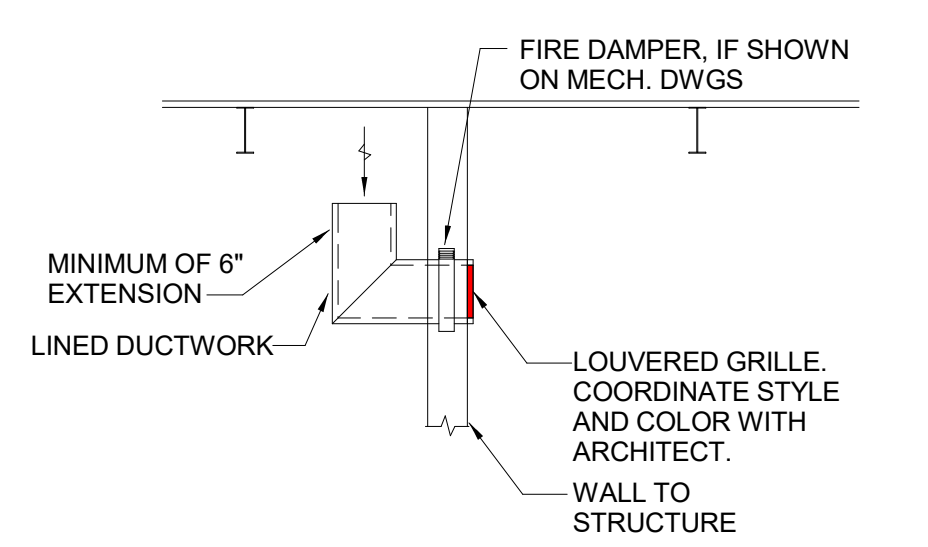


NOTES:
1. WHEN SPECIFIED TO BE PAINTED, ALL EXPOSED SHEETMETAL SURFACES INCLUDING HANGER STRAPS SHALL HAVE A "PAINT GRIP" FINISH FOR FIELD PAINTING. AS AN OPTION, MILL PHOSPHATIZED STEEL DUCTWORK MAY BE USED.
2. PAINT COLOR SHALL BE SELECTED BY ARCHITECT.
3. PAINTING BY OTHERS, COORDINATE WITH ARCHITECTURAL DWGS.
4. SECURE ESCUTCHEON TO DUCT WITH SHEETMETAL SCREWS AT 6" OC.

9 SPIRAL DUCT THRU WALL DETAIL
MO.02 / NO SCALE



4 TOILET EXHAUST FAN DETAIL
MO.02 / NO SCALE

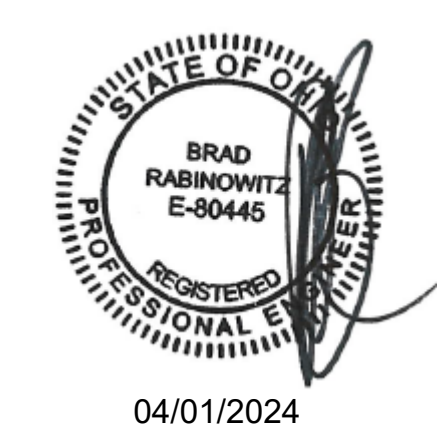


NOTES:
1. SEE MECH DWGS FOR DUCT SIZE. DUCT SIZE GIVEN IN SQUARE FEET OF FREE AREA. CONTRACTOR TO COORDINATE DUCT SIZE WITH ALL OVER EQUIPMENT IN PLENUM.
2. RA BOOT OPENINGS SHALL BE AT LEAST 6" FROM ANY OBSTRUCTIONS TO ALLOW FREE RETURN.

10 RETURN TRANSFER BOOT DETAIL
MO.02 / NO SCALE

project address | frame
client
branded environments
designers
job status
revisions
seal

No.	Description	Date



04/01/2024



Project Information

Energy Code: 2021 IECC
Project Title: Firebirds New Albany, OH
Location: New Albany (Franklin), Ohio
Climate Zone: 4a
Project Type: New Construction

Construction Site: Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Credits: 10.0 Required, 0.0 Proposed

Mechanical Systems List

Quantity System Type & Description

- 1 DOAS-1 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 450 kBtu/h
Proposed Efficiency = 81.00% Et, Required Efficiency = 81.00 % Et
Cooling: 1 each - DX DOAS (Dehumidification), Capacity = 359 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 6.00 ISMRE, Required Efficiency = 4.00 ISMRE
Proposed Part Load Efficiency = 0.00, Required Part Load Efficiency = 0.00
Fan System: DOAS-1 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 4300 CFM, 5.0 motor nameplate hp, 0.00 fan energy index , fan exception: 3rd party air/energy performance certified.
- 1 RTU-1 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 399 kBtu/h
Proposed Efficiency = 81.00% Et, Required Efficiency = 81.00 % Et
Cooling: 1 each - Single Package DX Unit, Capacity = 214 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 11.10 IEEER, Required Efficiency = 10.80 IEEER
Proposed Part Load Efficiency = 18.20 IEEER, Required Part Load Efficiency = 14.00 IEEER
Fan System: RTU-1 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 2 Supply, Constant Volume, 4200 CFM, 5.0 motor nameplate hp, 0.00 fan energy index , fan exception: 3rd party air/energy performance certified.
- 1 RTU-2 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 251 kBtu/h
Proposed Efficiency = 81.00% Et, Required Efficiency = 81.00 % Et
Cooling: 1 each - Single Package DX Unit, Capacity = 162 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 12.00 IEEER, Required Efficiency = 10.80 IEEER
Proposed Part Load Efficiency = 18.80 IEEER, Required Part Load Efficiency = 14.00 IEEER
Fan System: RTU-2 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 3 Supply, Constant Volume, 2500 CFM, 2.0 motor nameplate hp, 0.00 fan energy index , fan exception: 3rd party air/energy performance certified.
- 1 RTU-3 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 112 kBtu/h
Proposed Efficiency = 81.00% Et, Required Efficiency = 80.00 % Et or 80% AFUE
Cooling: 1 each - Single Package DX Unit, Capacity = 52 kBtu/h, Air-Cooled Condenser, Unknown Economizer
Proposed Efficiency = 15.80 SEER2, Required Efficiency = 13.40 SEER2
Proposed Part Load Efficiency = 0.00, Required Part Load Efficiency = 0.00
Fan System: RTU-3 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Project Title: Firebirds New Albany, OH Report date: 03/26/24
Data filename: Page 1 of 11

Quantity System Type & Description

- Fans:
FAN 4 Supply, Constant Volume, 1200 CFM, 1.0 motor nameplate hp, 0.00 fan energy index , fan exception: 3rd party air/energy performance certified.
- 2 WHG-1J2:
Gas Storage Water Heater, Capacity: 100 gallons, Input Rating: 199 kBtu/h w/ Circulation Pump
Proposed Efficiency: 97.00 % Et, Required Efficiency: 80.00 % Et

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Brad Rabinowitz	Sheet is signed	3/26/24
Name - Title	Signature	Date

Project Title: Firebirds New Albany, OH Report date: 03/26/24
Data filename: Page 2 of 11

project address | frame

client

branded environments



Starr Design, PLLC
2459 Wilkinson Blvd, Suite 310
Charlotte, NC 28208
V: 704 377 5200
www.starrdesignteam.com

BW
&A Barrett, Woodard, and Associates, Inc.
03/04/2024
120 MINNET LANE
Charlotte, North Carolina 28217
(919) 594-3577-9383 (919) 594-3577-9385
This drawing is copyrighted. It may not be reproduced nor used in any other form or on any other project.
BWA JOB # 2024-01196

designers

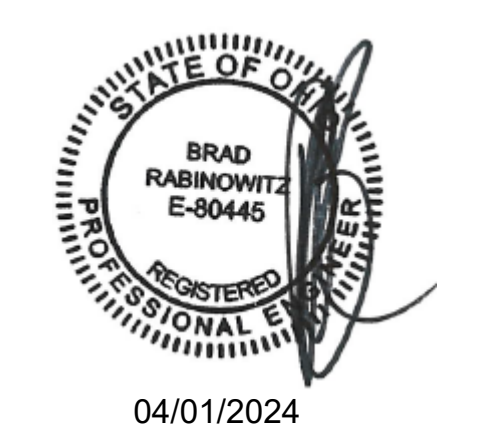
CONSTRUCTION DOCUMENTS

04/01/2024

job status

No.	Description	Date

revisions



seal

sheet number | title

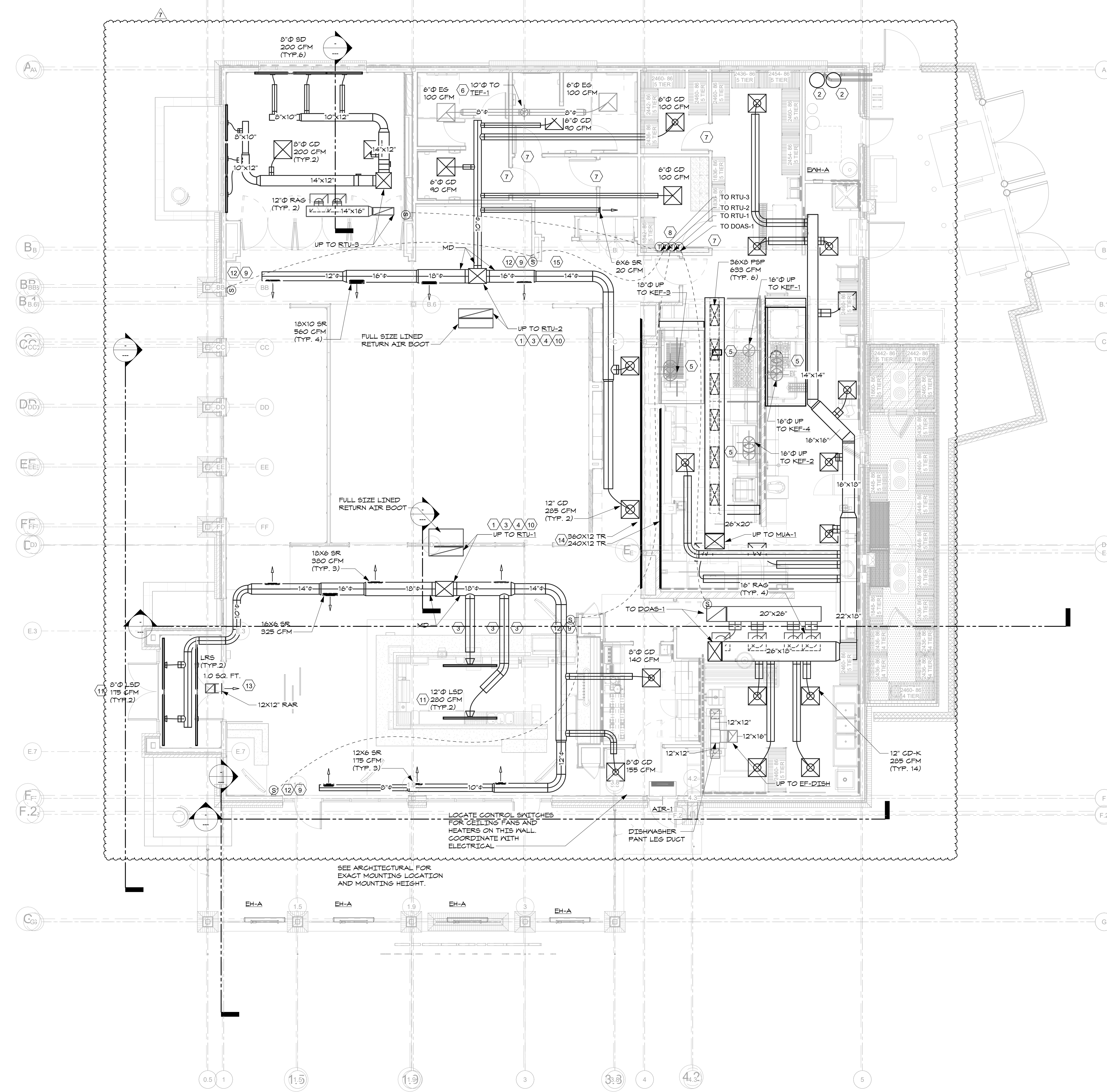
No.	Description	Date
7	Electrical and General Construction	11/15/2024

- GENERAL NOTES**
- CONTRACTOR TO IDENTIFY EXISTING FIRE SPRINKLER SYSTEM, MAINS, HEAD LOCATIONS, ETC. PRIOR TO SUBMITTING BIDS.
 - IT IS THE FIRE PROTECTION CONTRACTOR'S RESPONSIBILITY TO INSTALL, RELOCATE, AND REMOVE SPRINKLER HEADS AS REQUIRED TO MEET CODE. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
 - FIRE PROTECTION CONTRACTOR TO PROVIDE MATERIALS AND INSTALLATION TO MODIFY EXISTING FIRE SUPPRESSION SYSTEM TO COMPLY WITH MUNICIPAL CODES AND GUIDELINES. PROVIDE REQUIRED DOCUMENTATION INCLUDING HYDRAULIC CALCULATIONS AND ENGINEER CERTIFIED DOCUMENTATION.
 - FIRE SUPPRESSION LINES SHALL BE MOUNTED TO PROVIDE CLEARANCE FOR CEILING MOUNTED LIGHT FIXTURES, MECHANICAL EQUIPMENT, ETC.
 - FIRE PROTECTION SHALL COMPLY WITH NFPA 13 AND MANUFACTURER'S LISTING.
 - SPRINKLER HEADS SHALL BE CENTERED IN CEILING TILE AND TYPE, STYLE, AND FINISH TO MATCH EXISTING UNO IN THE CASE OF A PLENUM OBSTRUCTION, CONTRACTOR TO CONTACT/COORDINATE A SOLUTION WITH THE ARCHITECT PRIOR TO INSTALLATION.
 - PROVIDE TYPICALLY TURNED UP BRONZE HEADS IN SPACES EXPOSED TO STRUCTURE ABOVE. SEMI-RECESSED TURNED DOWN HEADS IN KITCHEN AND SERVICE AREAS. WHITE CONCEALED FULLY RECESSED HEADS IN GWB CEILING AND ACT CEILINGS IN FRONT OF HOUSE UNO.
 - BOTTOM OF NEW SPIRAL DUCTWORK SHALL MATCH THE ELEVATION OF THE EXISTING SPIRAL DUCT IT IS CONNECTING TO. COORDINATE WITH LIGHTS AND ARCHITECT.
 - COORDINATE SUPPLY REGISTERS LOCATION/DEFLECTION TO AVOID LIGHT FIXTURE MOVEMENT.
 - COORDINATE EXACT LOCATIONS OF THERMOSTATS WITH OWNER PRIOR TO INSTALLATION.
 - ALL MATERIALS LOCATED IN RETURN AIR PLENUM SHALL BE PLENUM RATED AND MEET THE 25/50 FLAME AND SMOKE INDEX IN ACCORDANCE WITH ASTM E 84.
 - ALL EXPOSED SPIRAL DUCT TO BE PAINTED GALVANIZED. COORDINATE WITH ARCHITECT.
 - PROVIDE ESCUTCHEON AROUND ALL DUCTWORK PASSING THROUGH WALLS.
 - ALL ROUND SPIRAL DUCTWORK SHALL BE DOUBLE WALL INSULATED DUCT. DUCT SIZES SHOWN ARE INTERNAL DIMENSIONS.
 - CONTRACTOR TO VERIFY THE CURVATURE OF THE SIDEWALL SUPPLY DIFFUSERS SO THAT THEY SHALL MATCH THE DIAMETER OF THE DUCT THEY ARE BEING INSTALLED INTO.
 - CONTRACTOR TO PROVIDE AN EXTRA SET OF OEM FILTERS FOR ALL GRILL SIZES.

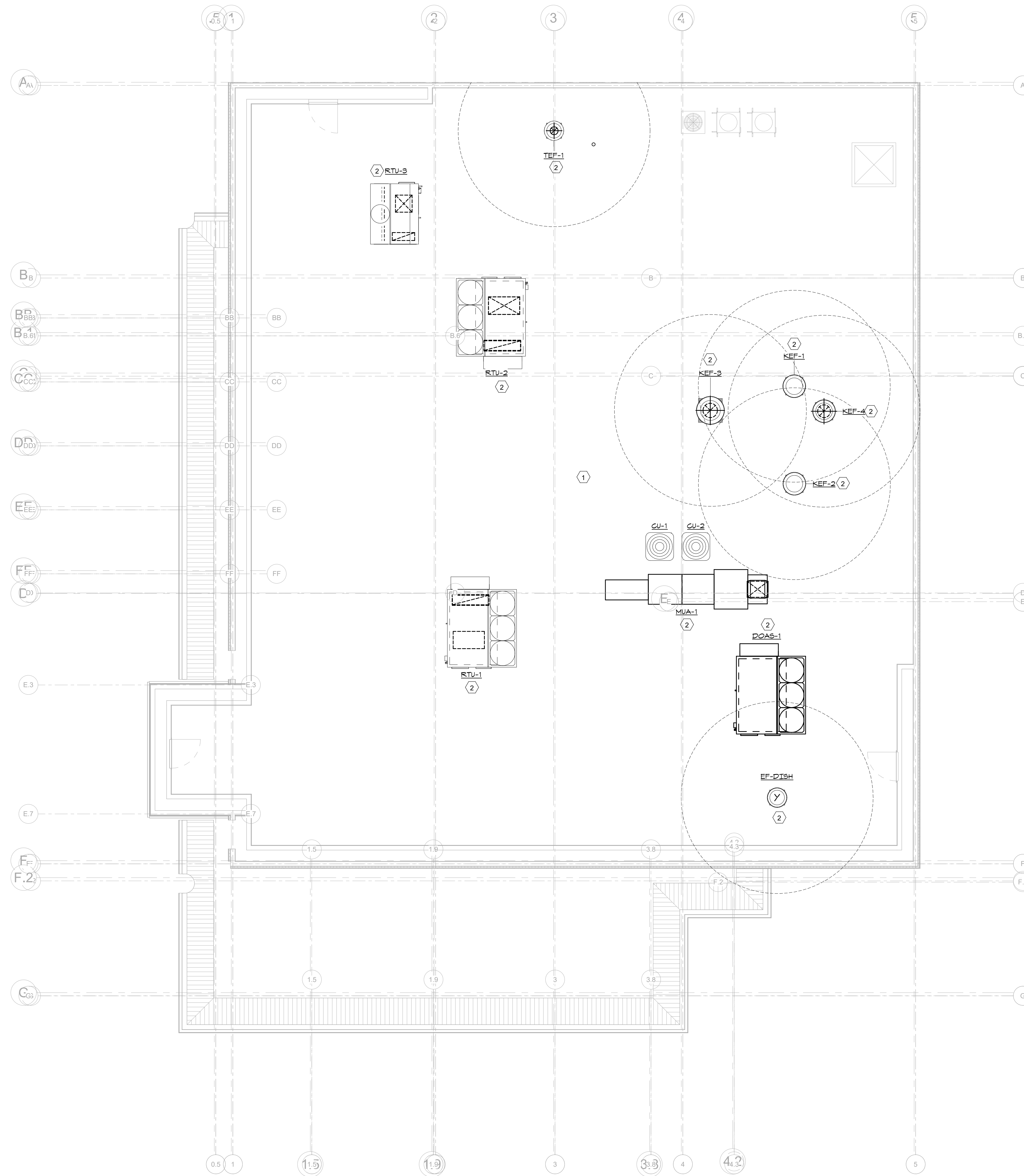
- KEY NOTES:**
(APPLY THIS SHEET ONLY)
- CONTRACTOR TO PROVIDE FULL SIZE LINED RETURN AIR DUCT FOR ROOF TOP UNIT. TERMINATE RETURN DUCT WITH FULL SIZE RETURN AIR REGISTER. COORDINATE FINISH WITH ARCHITECT.
 - PROVIDE GAS WATER HEATER INTAKE AND FLUE. PROVIDE REQUIRED PIPING FOR WHG-1 AND WHG-2. REFER TO WATER HEATER DETAIL ON SHEET P0.03
 - DUCT SHALL BE INSTALLED AS TIGHT TO BOTTOM OF TRUSSES AS POSSIBLE AND COORDINATED WITH ALL OTHER TRADES AND DISCIPLINES.
 - DUCT SHALL BE INSTALLED BETWEEN TRUSSES AS HIGH AS POSSIBLE AND COORDINATED WITH ALL OTHER TRADES AND DISCIPLINES.
 - ALL KITCHEN HOOD EXHAUST DUCTS SHALL BE INSPECTED AND TESTED PRIOR TO THE INSTALLATION OF THE PROPOSED FIRE MASTER FAST WRAP. VERIFY AND COORDINATE LOCATIONS OF ALL GREASE DUCT CLEANOUTS AND PROVIDE ADEQUATE CLEARANCE FOR REMOVAL AND MAINTENANCE FROM ALL TRADES. MAINTAIN A MINIMUM 24" CLEARANCE IN ALL DIRECTIONS OF GREASE DUCT CLEANOUT OPENINGS.
 - ROUTE 10" EXHAUST DUCT UP TO TEF-1. REFER TO SCHEDULE SHEET M0.01 FOR EXHAUST FAN SIZES AND DATA.
 - DOORS SHALL BE UNDERCUT 0'-1" FOR EXHAUST AIR FLOW.
 - COORDINATE LOCATION OF THERMOSTATS AND DUCT DETECTOR KEYED RESETS NOTIFICATION LIGHTS WITH OWNER. REFER TO DETAIL 8M0.02. UNIT SETPOINTS SHALL BE ADJUSTABLE THROUGH CONTROLS IN THIS ROOM. HOWEVER REMOTE SENSORS SHALL BE USED TO DETERMINE OCCUPIED SPACE. TEMPERATURE AND HUMIDITY SENSORS.
 - MOUNT TEMPERATURE AND HUMIDITY SENSORS AT 84" A.F.F. FOR RTU-1 AND RTU-2. PROVIDE CONDUIT FOR CONTROL WIRE AND STUB UP INTO STRUCTURE. RUN UP CLOSEST WALL. FIELD VERIFY ALL REQUIREMENTS AND COORDINATE WITH OWNERS AND ARCHITECT.
 - REFER TO STRUCTURAL FOR DUCT DROP JOIST MODIFICATIONS.
 - CONTRACTOR SHALL COORDINATE WITH FINAL ARCHITECTURAL RCP PRIOR TO ORDERING SLOT DIFFUSERS. LINEAR SLOT DIFFUSER LENGTH SHALL MATCH LONGER DIMENSION OF CEILING TILE.
 - PROVIDE REMOTE TEMPERATURE/HUMIDITY SENSOR IN THIS LOCATION CONFIGURED FOR AVERAGING THE MEASUREMENTS OF THE TWO REMOTE SENSORS IN THE DINING ROOM AS SHOWN. THE SENSOR SHALL BE CONFIGURED SO THAT IT IS NOT ADJUSTABLE BY THE BUILDING OCCUPANTS AND SO THAT THE BACKLIGHT IS DISABLED.
 - PROVIDE LINED RETURN AIR BOOT ABOVE CEILING WITH INDICATED FREE AREA. REFER TO DETAIL 10M0.02.
 - PROVIDE 36X12" TRANSFER GRILLE INSTALLED IN SOFFIT ON DINING ROOM SIDE OF THE PASS THROUGH. PROVIDE ADDITIONAL 25X12" TRANSFER GRILLE INSTALLED IN THE KITCHEN SIDE OF THE PASS THROUGH. BLANK OFF AREA BEHIND THE SOLID FUEL HOOD ON THE KITCHEN SIDE OF THE SOFFIT. ALL LOUVERED GRILLE BLADES SHALL BE ANGLED UPWARDS TO PREVENT SIGHT LINES AND GRILLES SHALL BE PAINTED TO MATCH THE WALL FINISH. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. BASIS OF DESIGN IS TITUS 350FL. GRILLES SHALL BE SHIPPED IN MULTIPLE SECTIONS WITH JOINING STRIPS TO PROVIDE THE OVERALL SIZES INDICATED. FREE AREA CALCULATIONS ARE BASED ON 6X12" MODULES. HOWEVER ALTERNATE CONFIGURATIONS MEETING OR EXCEEDING THE TOTAL FREE AREA (CORE AREA) ARE ACCEPTABLE.

LEGEND

	12"x12" SUPPLY AIR CEILING DIFFUSER
	24"x24" SUPPLY AIR CEILING DIFFUSER
	24"x24" RETURN AIR GRILLE
	24"x24" EXHAUST AIR GRILLE
	ROUND DIFFUSER
	SUPPLY AIR SIDE-WALL OR DUCT MOUNTED REGISTER
	MD MANUAL VOLUME DAMPER
	T THERMOSTAT
	S TEMPERATURE SENSOR



1 FLOOR PLAN - HVAC
M1.01 3/10/24



1 ROOF PLAN - HVAC
M1.02 3/16" = 1'-0"

- GENERAL NOTES**
- INTAKES AND EXHAUST SHALL BE A MINIMUM OF 10 FEET APART.
 - DUCT TYPE I HOOD FANS TERMINATIONS SHALL BE MIN 40" ABOVE FINISHED ROOF. TERMINATION SHALL CONFORM TO 2015 IMC SECTION 506.3.13
 - ALL MECHANICAL EQUIPMENT SHALL BE LABELED WITH LAMINATE NAMEPLATE SECURELY AFFIXED TO THE EQUIPMENT. THE NAMEPLATE SHALL SHOW THE EQUIPMENT TAG USED ON THESE DRAWINGS.
 - REFER TO SHEET P1.04 FOR CONDENSATE LINE ROUTING.

- LEGEND NOTES**
(APPLY TO THIS SHEET ONLY)
- ALL EXTERNAL SERVICES (I.E. ELECTRICAL CONDUITS, GAS LINES, METERS, ETC.) ARE TO BE PAINTED TO MATCH THE BUILDING. ALSO, CONDUIT RUNS, SERVICE LINES, AND REFRIGERANT LINE SETS SHOULD BE GROUPED TOGETHER IN A NEAT AND ORDERLY MANNER. SERVICE LINES SHOULD PENETRATE THE WALL AT THE LOWEST POINT AND ARE NOT TO BE RUN OVER THE TOP OF THE PARAPET.
 - REFER TO STRUCTURAL DRAWINGS FOR TYPICAL DETAILS FOR STEEL ANGLES AT CURB INSTALLATIONS, DUCTWORK PENETRATIONS AND PIPING AND DUCT SUPPORTS INSTALLATION TO ROOF DECKING.

**FIREBIRDS
HAMILTON QTR.
(NEW ALBANY)**

6036 N. HAMILTON RD.
Westerville, OH 43081

project address | frame



client



branded environments

Starr Design, PLLC
2459 Wilkinson Blvd, Suite 310
Charlotte, NC 28208
V: 704.377.5200
www.starrdesignteam.com

BW & A Barrett, Woodard, and Associates, Inc.
01040242
120 MINNET LANE
Charlotte, North Carolina 28217
(p) 704-357-9383 (f) 704-357-9385
This drawing is copyrighted. It may not be reproduced nor used in any other form or on any other project.
BWA JOB # 2024-01096

designers

CONSTRUCTION DOCUMENTS

04/01/2024

job status

No.	Description	Date

revisions



04/01/2024

seal

**ROOF PLAN -
MECHANICAL
M1.02**

23FB003 | © Starr Design, PLLC 2016

sheet number | title

FIREBIRDS
HAMILTON QTR.
(NEW ALBANY)

6036 N. HAMILTON RD.
Westerville, OH 43081

project address | frame



client



branded environments

Starr Design, PLLC
2459 Wilkinson Blvd, Suite 310
Charlotte, NC 28208
P: 704 377 5200
www.starrdesignteam.com

BW
&A
Barrett, Woodard, and Associates, Inc.
01040242
120 MINNET LANE
Charlotte, North Carolina 28217
(P) 704-527-9383 (F) 704-527-9385
This drawing is copyrighted. It may not
be reproduced nor used in any other
form or on any other project.
BWA JOB # 2024-0106

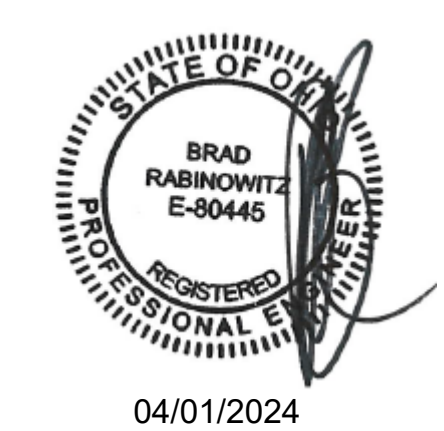
designers

CONSTRUCTION
DOCUMENTS
04/01/2024

job status

No.	Description	Date

revisions



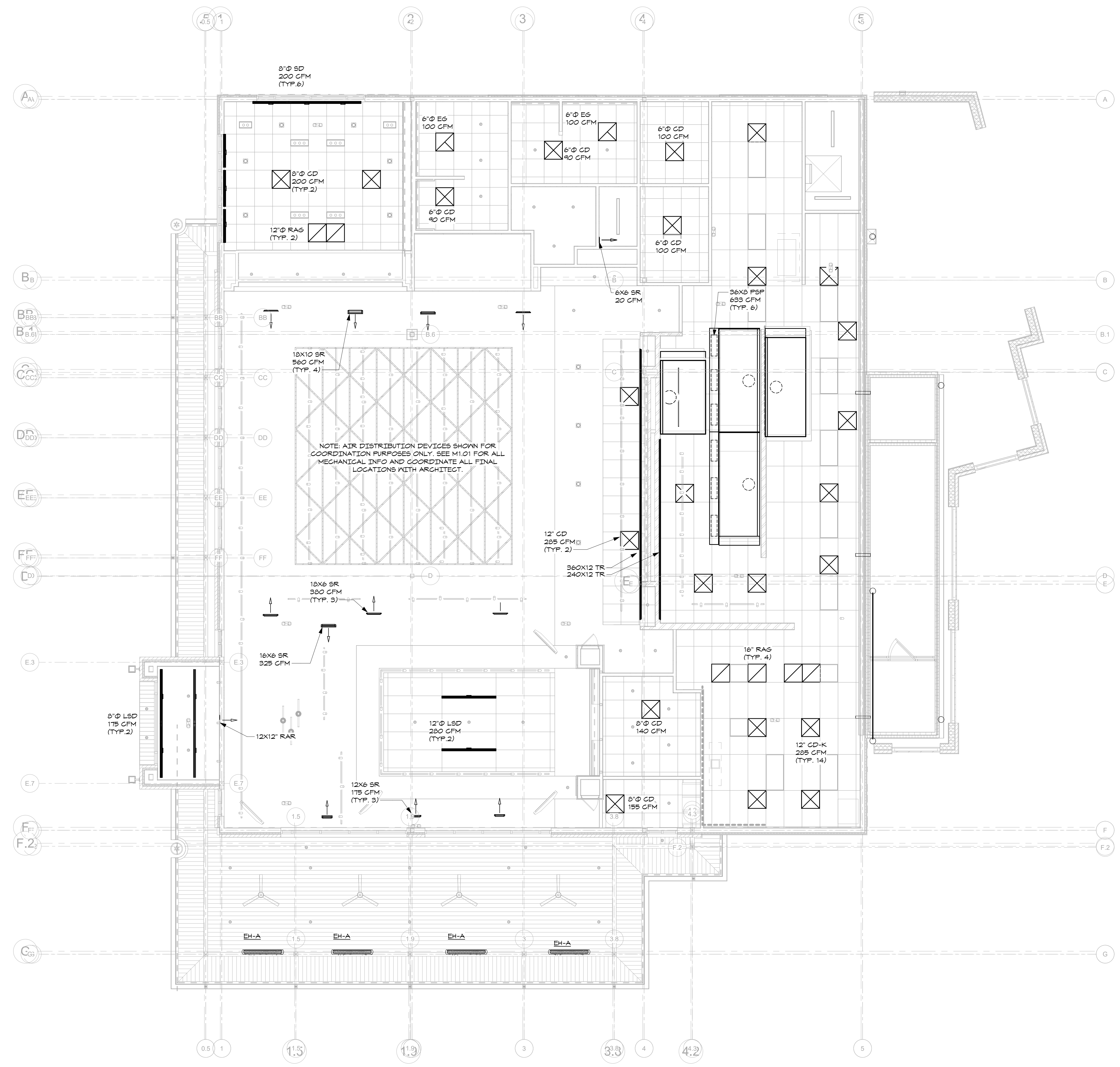
04/01/2024

seal

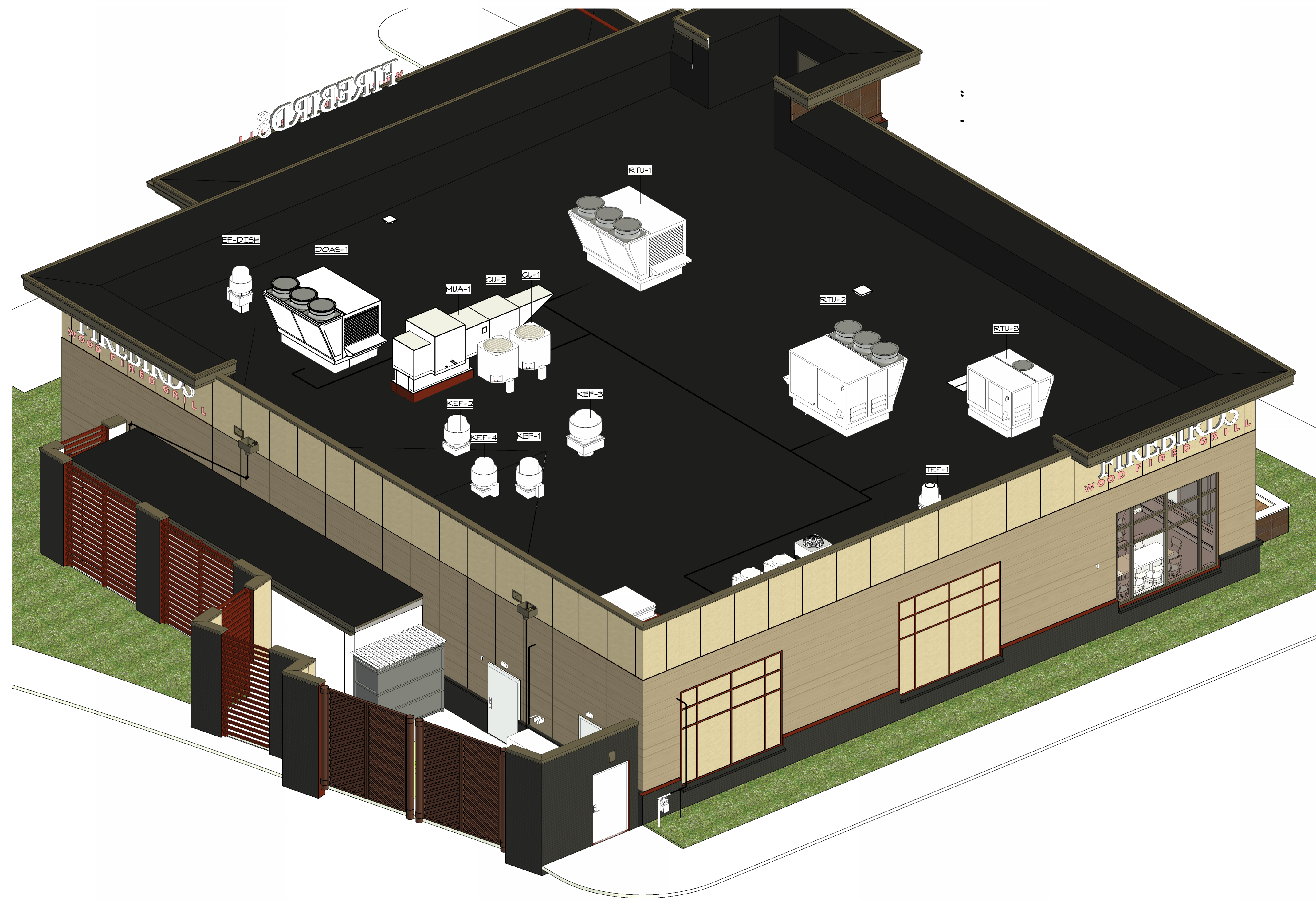
REFLECTED
CEILING PLAN -
MECHANICAL
M2.01

23FB003 | © Starr Design, PLLC 2016

sheet number | title



1 REFLECTED CEILING PLAN - MECHANICAL
M2.01 3/8" = 1'-0"



1 MECHANICAL ISOMETRIC
M3.01

FIREBIRDS
HAMILTON QTR.
(NEW ALBANY)

6036 N. HAMILTON RD.
Westerville, OH 43081

project address | frame

FIREBIRDS
WOOD FIRED GRILL

client

starr
design
branded environments

Starr Design, PLLC
2459 Wilkinson Blvd, Suite 310
Charlotte, NC 28208
V: 704.377.5200
www.starrdesignteam.com

BW
&A
Barrett, Woodard, and Associates, Inc.
130 MINNET LANE
Charlotte, North Carolina 28217
(919) 487-9383 | (704) 537-9385
© This drawing is copyrighted. It may not
be reproduced nor used in any other
form or on any other project.
BWA JOB # 2024-01196

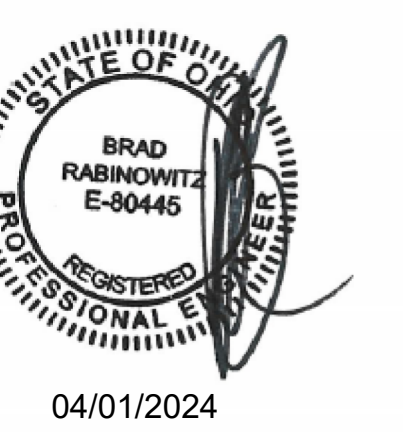
designers

CONSTRUCTION
DOCUMENTS
04/01/2024

job status

No.	Description	Date

revisions



seal

MECHANICAL
ISOMETRIC
M3.01

sheet number | title

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
Charlotte/Hedmont
www.captiveaire.com
6303 Camel Road Suite 105, Charlotte, NC 28226 PHONE: (704) 844-8888 FAX: 9192278952 EMAIL: reg3@captiveware.com

Firebirds - New Albany, OH
NEW ALBANY, OH, 43054

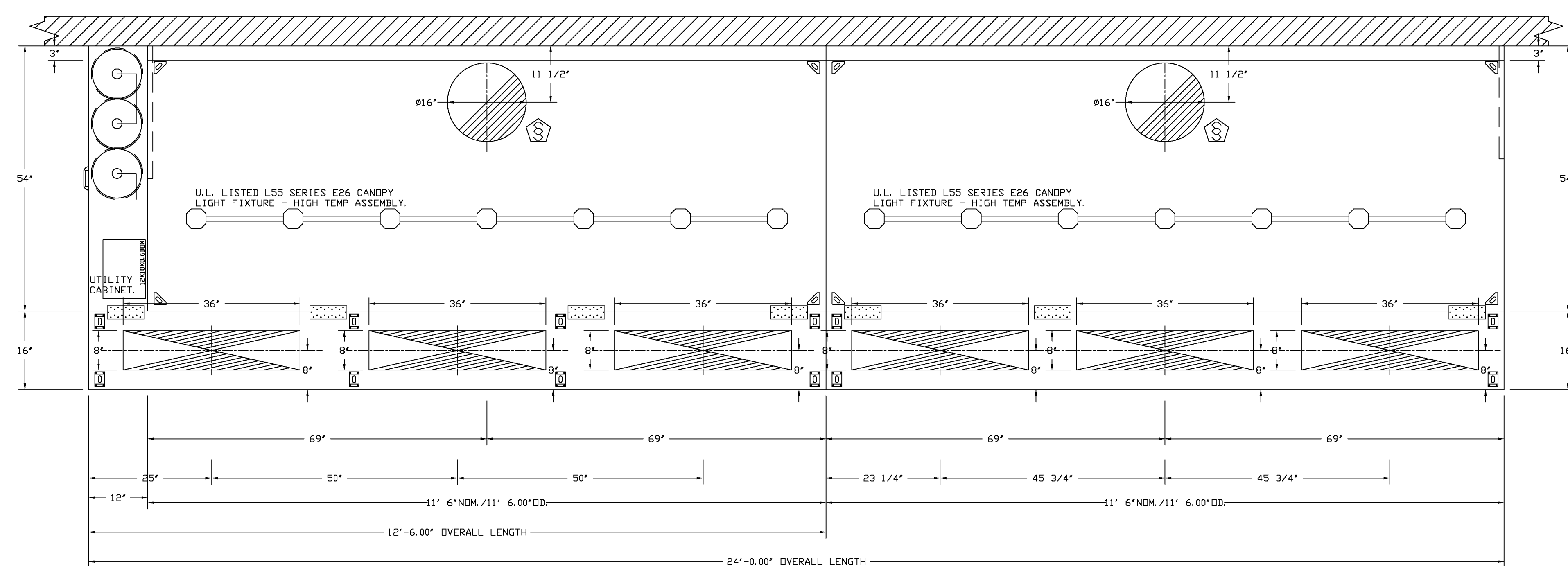
DATE: 3/20/2024
DWG.#: 6687721
DRAWN BY: evan zipper
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 2

CONSTRUCTION DOCUMENTS
04/01/2024

No.	Description	Date

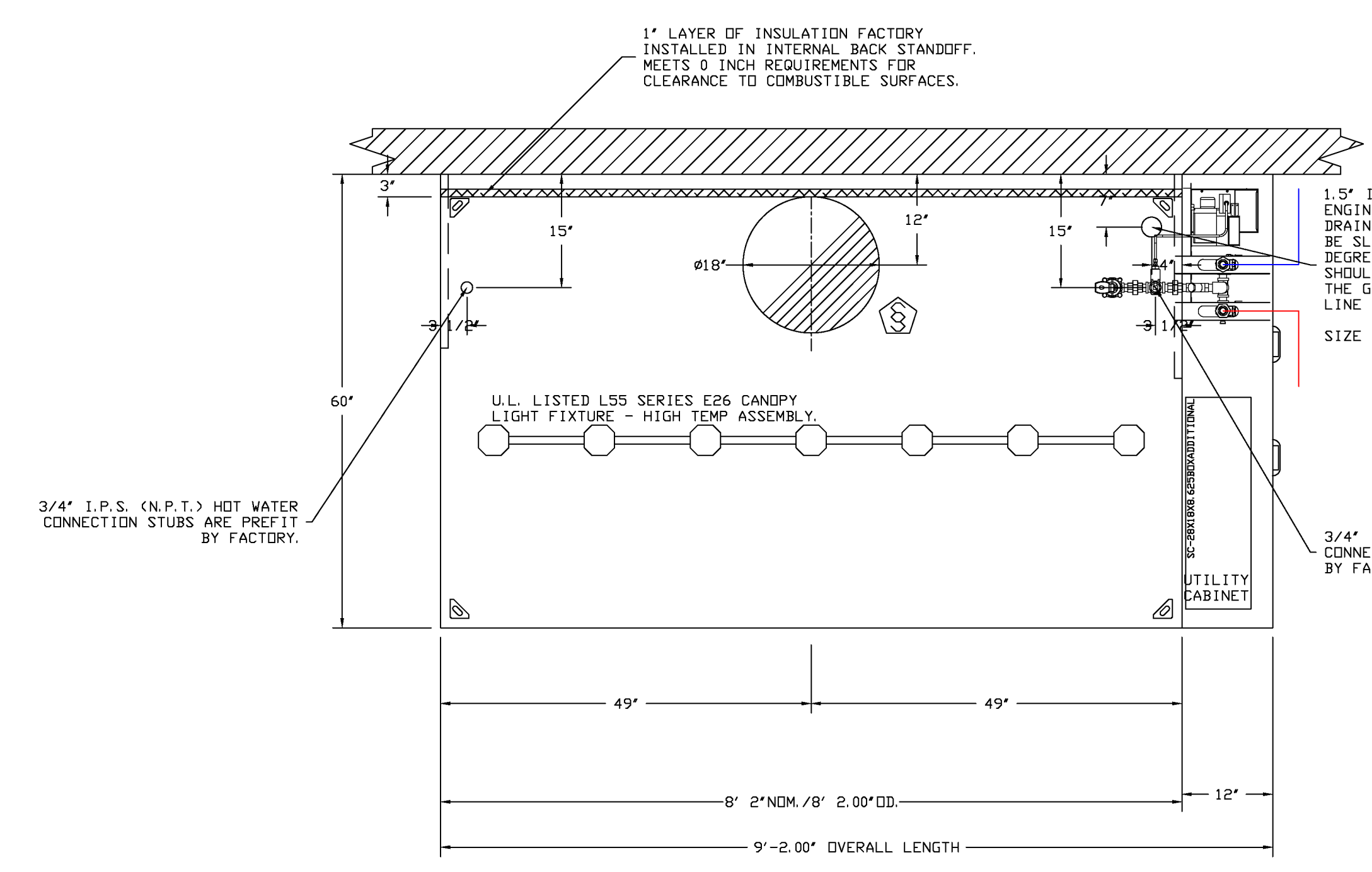


04/01/2024

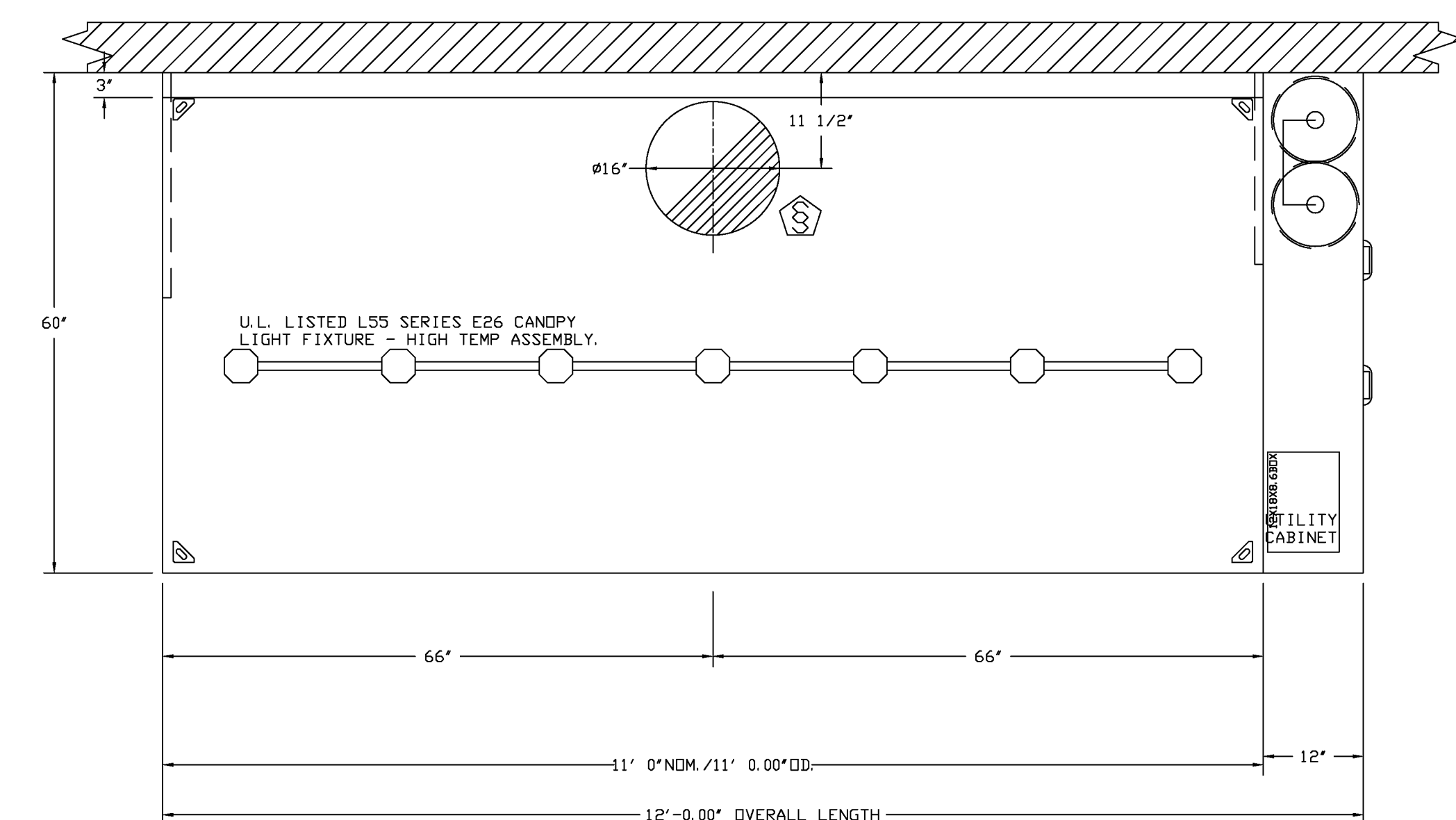


PLAN VIEW - HOOD #1 (HD-33 MAIN L)
11' 6.00" LONG 5424ND-2-PSP-F

PLAN VIEW - HOOD #2 (HD-33 MAIN R)
11' 6.00" LONG 5424ND-2-PSP-F



PLAN VIEW - HOOD #3 (HD-38 GRILL)
8' 2.00" LONG 6030ND-2



PLAN VIEW - HOOD #4 (HD-70 PREP)
11' 0.00" LONG 6024ND-2

1.5" I.P.S. DRAIN DRIP ENGINEER IS RESPONSIBLE FOR DRAIN LINE DESIGN BEYOND THE HOOD. DRAIN LINE MUST BE INSTALLED PER LOCAL CODES. DRAIN LINE MUST BE SLOPED (MINIMUM 1/8" PER FOOT). AVOID ANY UNNECESSARY 90 DEGREE TURNS. IF COMBINED WITH OTHER DRAIN LINES, THEN PIPE SIZE SHOULD BE INCREASED ACCORDINGLY. P-TRAPS SHOULD NOT BE USED IN THE GREASE DRAIN LINE AND HEAT TAPE MUST BE USED WHERE DRAIN LINE IS RUN IN ENVIRONMENTS THAT WOULD SOLIDIFY GREASE. SIZE BUILDING GREASE INTERCEPTOR ACCORDINGLY.

3/4" I.P.S. (N.P.T.) HOT WATER CONNECTION STUBS ARE PREFIT BY FACTORY.

3/4" I.P.S. (N.P.T.) HOT WATER CONNECTION STUBS ARE PREFIT BY FACTORY.

1" LAYER OF INSULATION FACTORY INSTALLED IN INTERNAL BACK STANDOFF. MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES.

No.	Description	Date



04/01/2024

REVISIONS	
DESCRIPTION	DATE

**SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #1 (HD-33 MAIN L)**

Labels: EXHAUST RISER, HANGING ANGLE, 20" CAPRATE SOLID FILTER WITH HOOK, 3" INTERNAL STANDOFF, FIELD WRAPPER 17.00" HIGH, ATTACHING PLATES, SUPPLY RISER WITH VOLUME DAMPER, 23.5X OPEN STAINLESS STEEL PERFORATED PANEL, L55 SERIES E26 CANOPY LIGHT FIXTURE - HIGH TEMP ASSEMBLY, INCLUDES CLEAR THERMAL AND SHOCK RESISTANT GLOBE (L55 FIXTURE), GREASE DRAIN WITH REMOVABLE CUP, EQUIPMENT BY OTHERS, GAS CHASE CUTOFF (FOR GAS AND POWER LINES), LEFT VERTICAL END PANEL WITH ADJUSTABLE LEGS.

**SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #2 (HD-33 MAIN R)**

Labels: EXHAUST RISER, HANGING ANGLE, 20" CAPRATE SOLID FILTER WITH HOOK, 3" INTERNAL STANDOFF, FIELD WRAPPER 17.00" HIGH, ATTACHING PLATES, SUPPLY RISER WITH VOLUME DAMPER, 23.5X OPEN STAINLESS STEEL PERFORATED PANEL, L55 SERIES E26 CANOPY LIGHT FIXTURE - HIGH TEMP ASSEMBLY, INCLUDES CLEAR THERMAL AND SHOCK RESISTANT GLOBE (L55 FIXTURE), GREASE DRAIN WITH REMOVABLE CUP, RIGHT QUARTER END PANEL, EQUIPMENT BY OTHERS, GAS CHASE CUTOFF (FOR GAS AND POWER LINES), LEFT VERTICAL END PANEL WITH ADJUSTABLE LEGS.

**SECTION VIEW - MODEL 6030ND-2
HOOD - #3 (HD-38 GRILL)**

Labels: ADJUST DUCT NOZZLE 9" - 10" FROM VERTICAL TO POINT SLIGHTLY TOWARDS BACK OF RISER, EXHAUST RISER, HANGING ANGLE, 20" CAPRATE SOLID FILTER WITH HOOK, 1" LAYER OF INSULATION FACTORY INSTALLED IN 3" INTERNAL STANDOFF, MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES, 1" LAYER OF INSULATION FACTORY INSTALLED ON TOP OF HOOD, MEETS 0 INCH REQUIREMENTS FOR CLEARANCE TO COMBUSTIBLE SURFACES, FIELD WRAPPER 11.00" HIGH, LEFT QUARTER END PANEL, 1.5" I.P.S. FINAL DRAIN DROP LOCATION ALL NECESSARY FITTINGS FROM THE VENTILATOR TO THE BUILDING WASTE LINES, I.E. FLOOR SINKS, AIR GAPS, OR OTHER DEVICES REQUIRED BY THE GOVERNING CODES, BY OTHERS, ENGINEER IS RESPONSIBLE FOR DRAIN LINE DESIGN BEYOND THE HOOD, DRAIN LINE MUST BE INSTALLED PER LOCAL CODES, DRAIN LINE MUST BE SLOPED (MINIMUM 1/8 INCH PER FOOT), AVOID ANY UNNECESSARY 90 DEGREE TURNS, IF COMBINED WITH OTHER DRAIN LINES, THEN PIPE SIZE SHOULD BE INCREASED ACCORDINGLY, P-TRAPS SHOULD NOT BE USED IN THE GREASE DRAIN LINE AND HEAT TAPE MUST BE USED WHERE DRAIN LINE IS RUN IN ENVIRONMENTS THAT WOULD SOLIDIFY GREASE, GREASE DRAIN WITH REMOVABLE CUP, EQUIPMENT BY OTHERS, GAS CHASE CUTOFF (FOR GAS AND POWER LINES), RIGHT VERTICAL END PANEL WITH ADJUSTABLE LEGS.

**SECTION VIEW - MODEL 6024ND-2
HOOD - #4 (HD-70 PREP)**

Labels: EXHAUST RISER, HANGING ANGLE, 20" CAPRATE SOLID FILTER WITH HOOK, 3" INTERNAL STANDOFF, FIELD WRAPPER 17.00" HIGH, ATTACHING PLATES, SUPPLY RISER WITH VOLUME DAMPER, 23.5X OPEN STAINLESS STEEL PERFORATED PANEL, L55 SERIES E26 CANOPY LIGHT FIXTURE - HIGH TEMP ASSEMBLY, INCLUDES CLEAR THERMAL AND SHOCK RESISTANT GLOBE (L55 FIXTURE), GREASE DRAIN WITH REMOVABLE CUP, RIGHT QUARTER END PANEL, BACKSPLASH 128.00" HIGH X 162.00" LONG, EQUIPMENT BY OTHERS, GAS CHASE CUTOFF (FOR GAS AND POWER LINES), LEFT VERTICAL END PANEL WITH ADJUSTABLE LEGS.

6030 Carmel Road Suite 105, Charlotte, NC 28226 PHONE: (704) 844 - 9868 FAX: 9192279952 EMAIL: reg@captivaire.com

CAPTIVEAIRE Charlotte/Piedmont

Firebirds - New Albany, OH
NEW ALBANY, OH, 43054

DATE: 3/20/2024
DWG.#: 6687721
DRAWN BY: evan.zippert
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 3

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
Charlotte/Piedmont
www.captiveaire.com
6303 Camell Road Suite 105, Charlotte, NC 28226 PHONE: (704) 844-8088 FAX: 9192278562 EMAIL: reg@capivaire.com

Firebirds - New Albany, OH
NEW ALBANY, OH, 43054

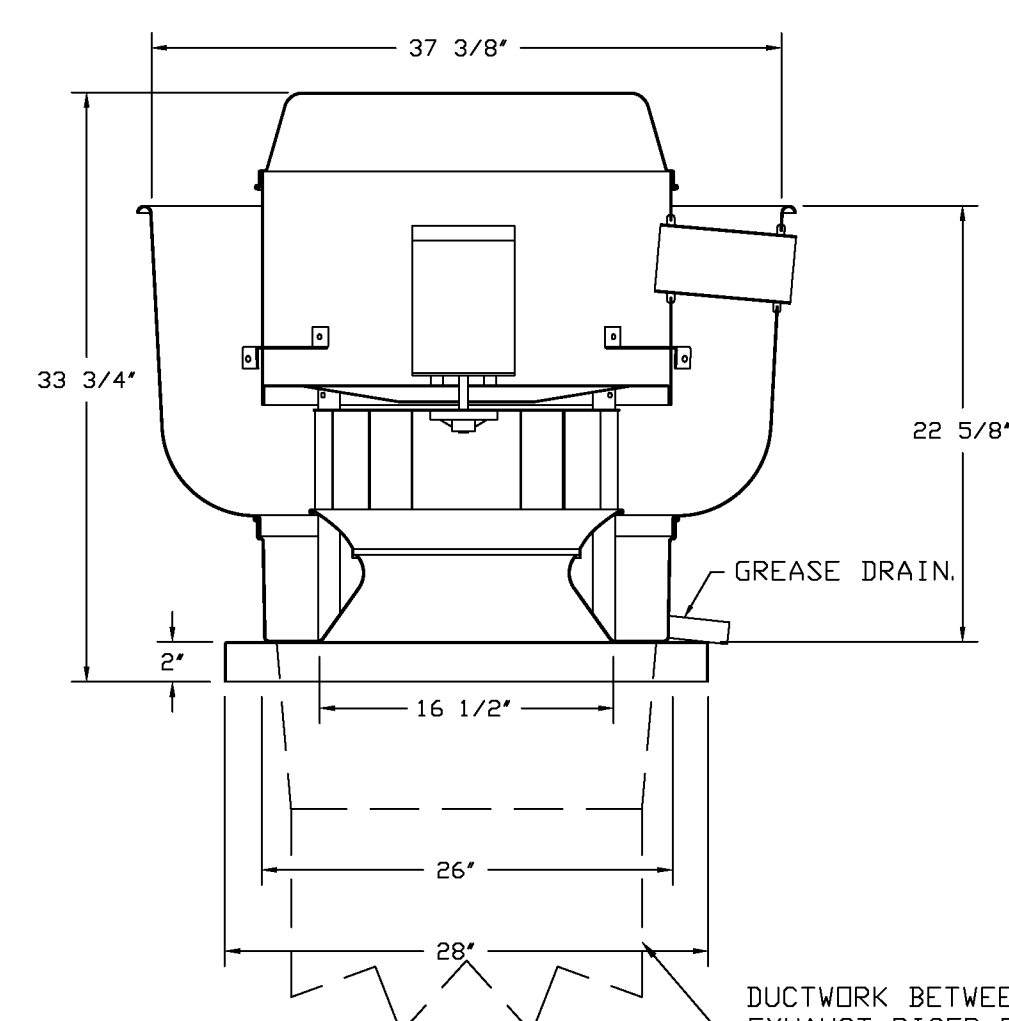
DATE: 3/20/2024
DWG.#: 66877E1
DRAWN BY: evan.zipper
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 5

CONSTRUCTION
DOCUMENTS
04/01/2024

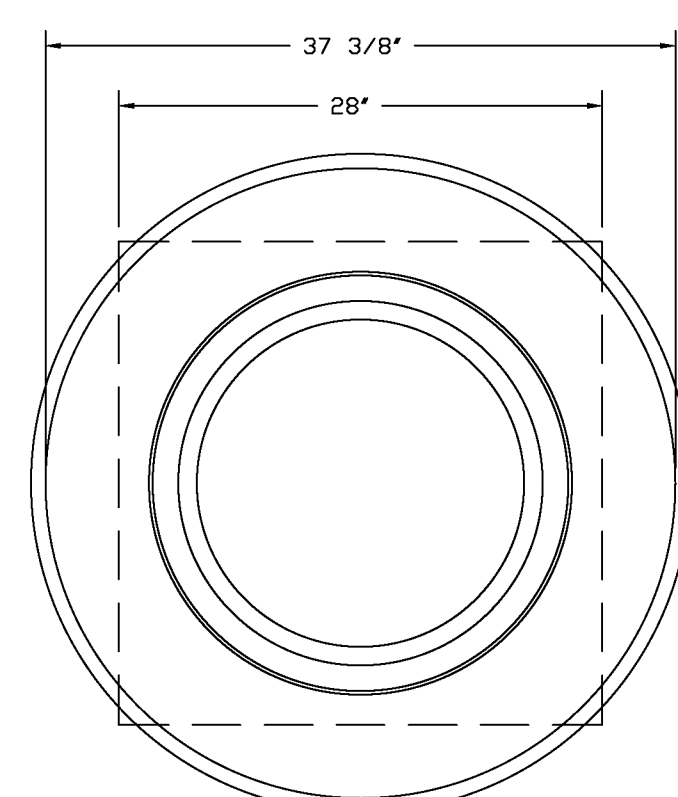
No.	Description	Date



FANS #1 (KEF-1 (33 LEFT)), #2 (KEF-2 (33 RIGHT)), #3 (KEF-4 (PREP)) - DU180HFA EXHAUST FAN



TOP VIEW



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.

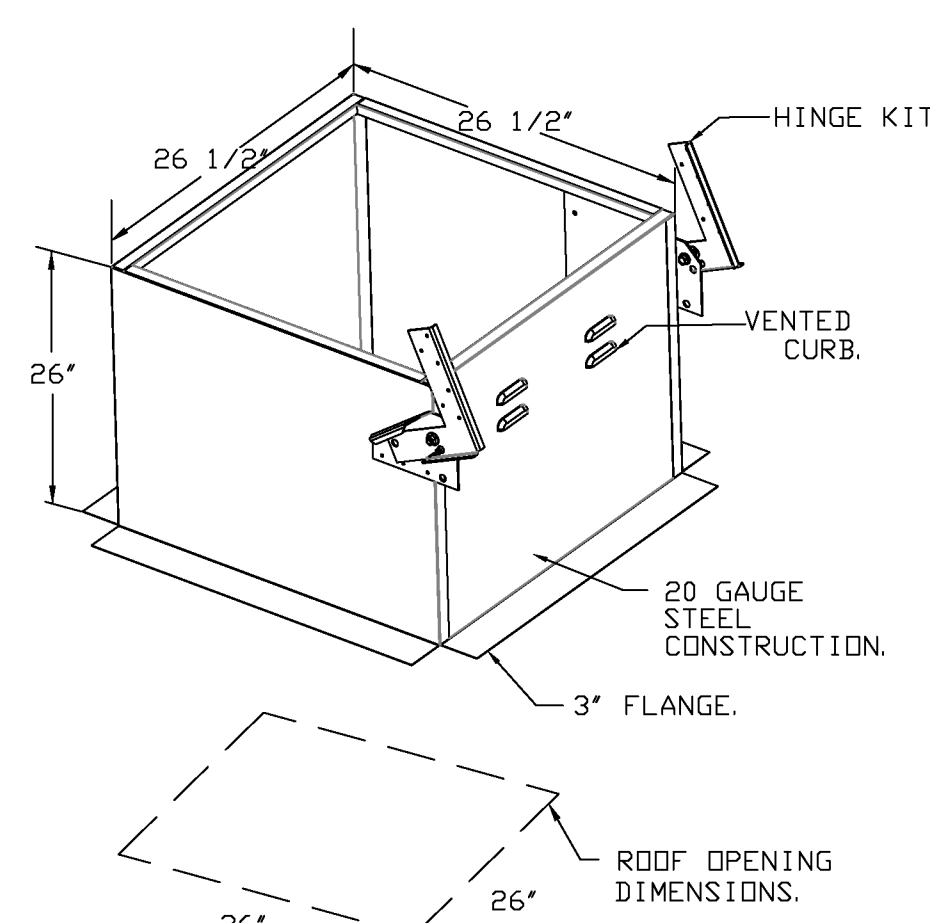
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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.

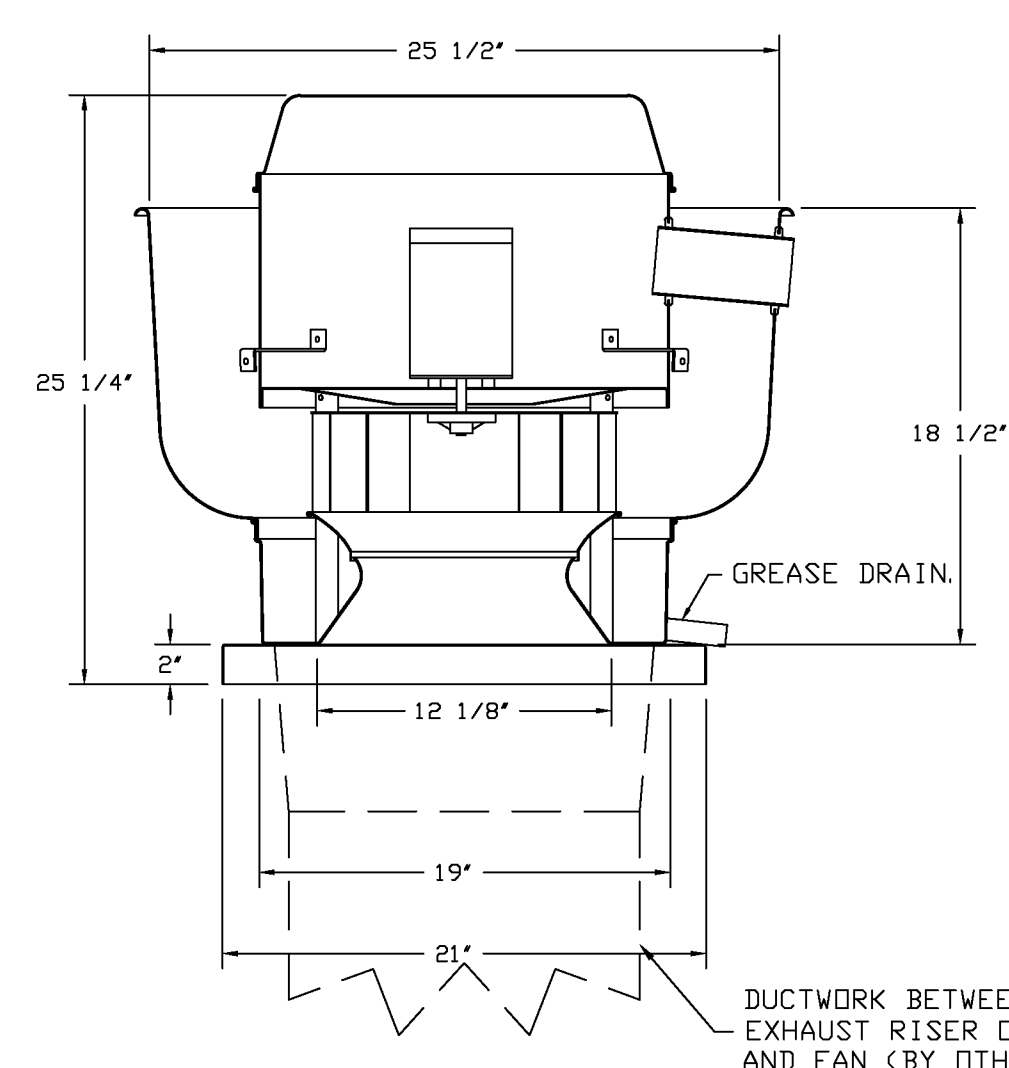
OPTIONS:

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR180HFA
- INSTALLED AT PLANT - FOR GREASE DUCTS.
- 2 YEAR PARTS WARRANTY.

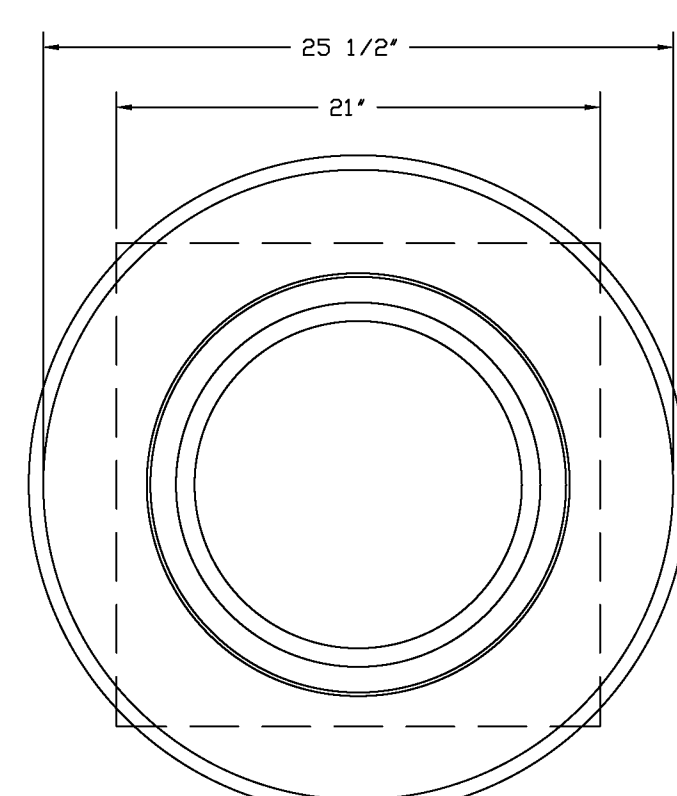
DUCTWORK BETWEEN EXHAUST RISER ON HOOD AND FAN (BY OTHERS).



FAN #4 DU33HFA - EXHAUST FAN (CF-DISH)



TOP VIEW



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.

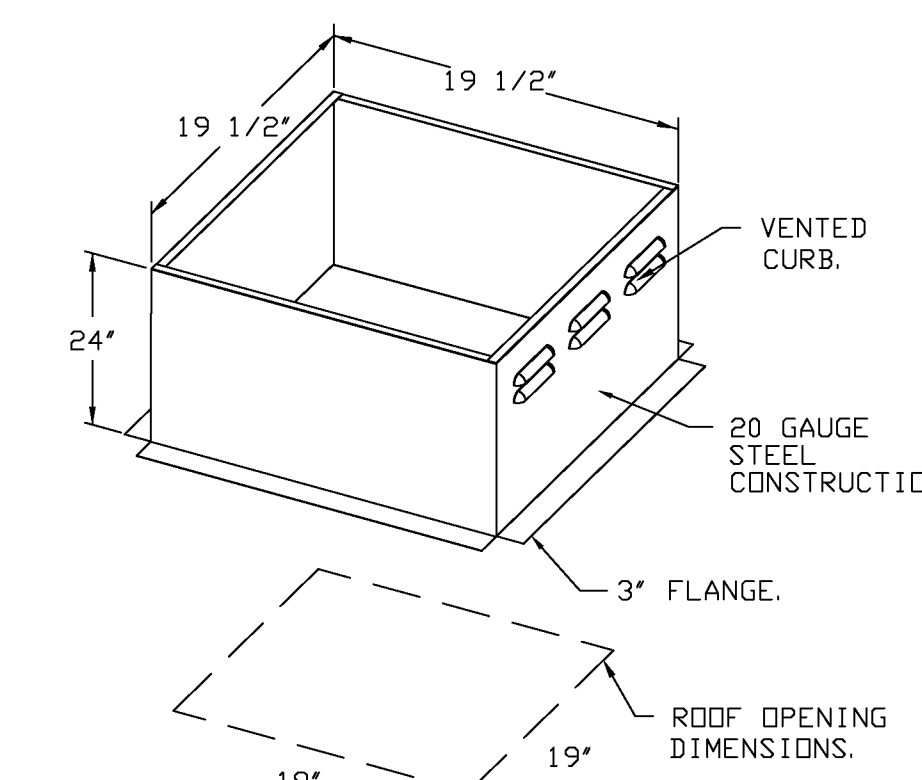
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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:

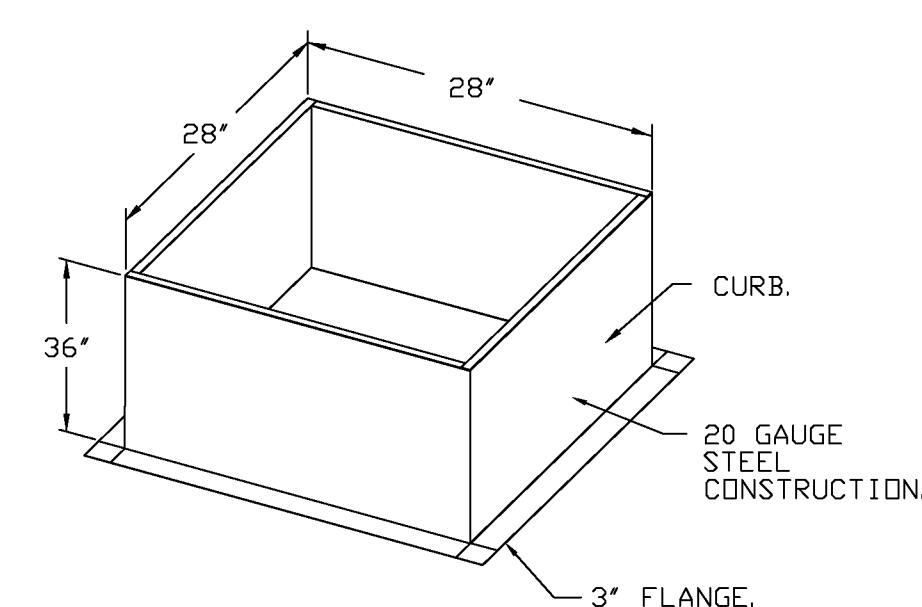
- GREASE BOX.
- 2 YEAR PARTS WARRANTY.

DUCTWORK BETWEEN EXHAUST RISER ON HOOD AND FAN (BY OTHERS).



CURB #10 HRE28X36

- OPTIONS:**
- FULL BOTTOM CORNERS.



project address | frame

client

branded environments

designers

job status

revisions

seal

sheet number | title

No.	Description	Date



04/01/2024

- FAN #5 A2-D-500-200-MPU - HEATER (MUA-13)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.
 2. INTAKE HOOD WITH EZ FILTERS.
 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
 4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
 5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
 6. BUTTERFLY MOD VALVE OPTION FOR MOD SIZE 2 (1" MOD VALVE).
 7. SHIP LOOSE GAS STRAINER. TO BE INSTALLED UPSTREAM OF UNIT CONNECTION, 1" CONNECTION.
 8. CAS LINK BUILDING MONITORING SYSTEM COMMUNICATIONS MODULE. REQUIRES INTERNET & FIELD WIRED ETHERNET CONNECTION OR 35 CELLULAR SERVICE. INCLUDES REV 3 COMM MODULE, RJ45 TO MODBUS CONVERTER, 3 FT CAT5 CABLE, AND 1 FT OF SHIELDED TWISTED PAIR.
 9. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE. LF150S ACTUATOR INCLUDED.
 10. 10 TON, DUAL CIRCUIT (S/S) MODULAR PACKAGED COOLING OPTION FOR SIZE 2 DFEH MODULAR PACKAGED UNIT. INCLUDES CONDENSER, IN COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE. (3,500 TO 5,000 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 CIL. CONDENSERS REQUIRE SEPARATE 208V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 3E2B802.
 11. DOWNTURN PLENUM FOR SIZE 2 COOLING COIL MODULE - REQUIRED FOR DOWN DISCHARGE COOLING COIL APPLICATIONS.
 12. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING UP IN PREVIEW PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MAIN SWITCH.
 13. PROFILE PLATE CONFIGURATION FOR SIZE 2 DIRECT FIRED UNIT FOR LOW CFM APPLICATIONS.
 14. 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 PDST. BLANK POST SHOULD BE USED IN PLACE. ALL PIPING AND WIRING BETWEEN INDOOR AND OUTDOOR UNITS BY OTHERS.
 15. FINISH DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
 16. 2 YEAR PARTS WARRANTY.

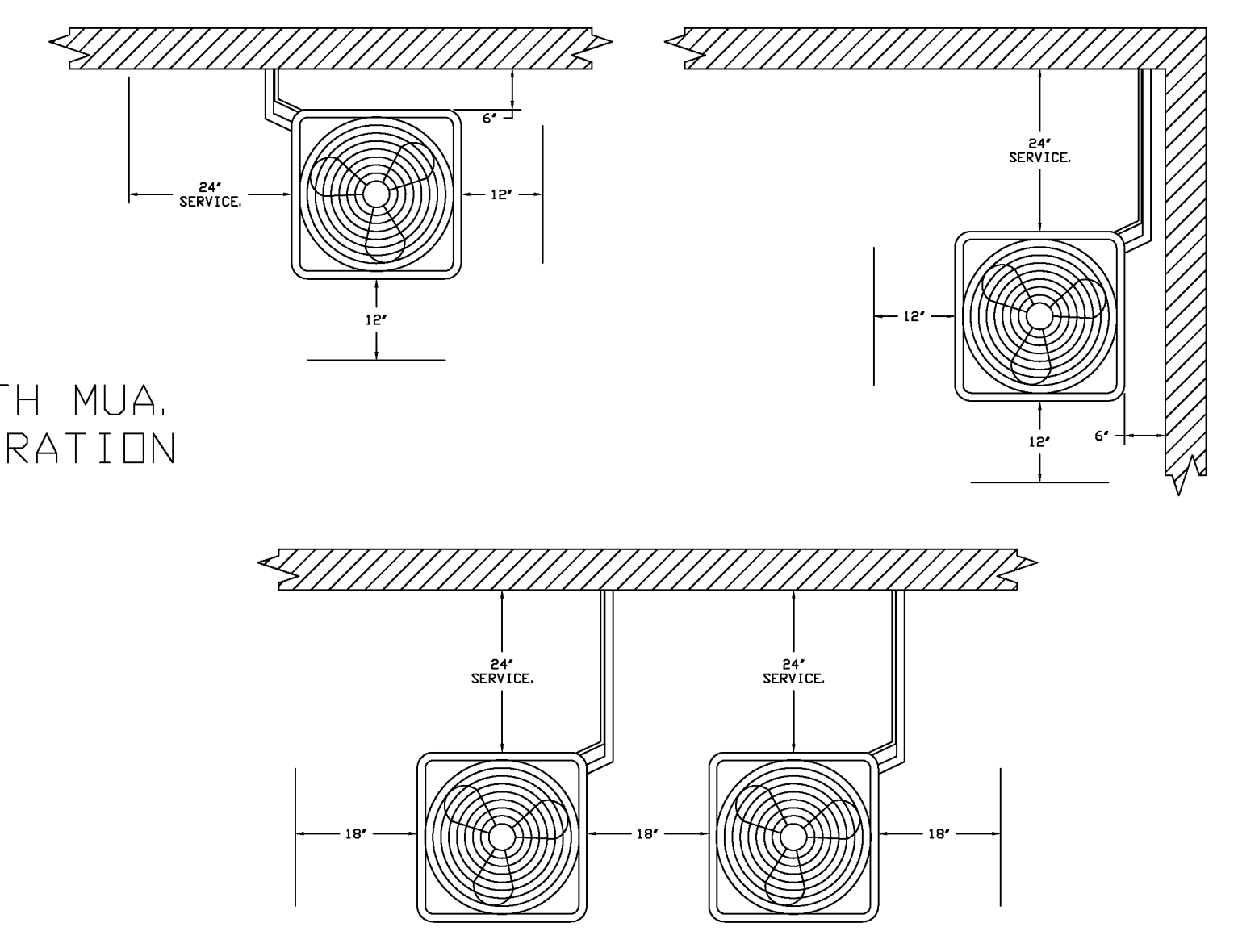
NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 200. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRAMATICALLY 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.

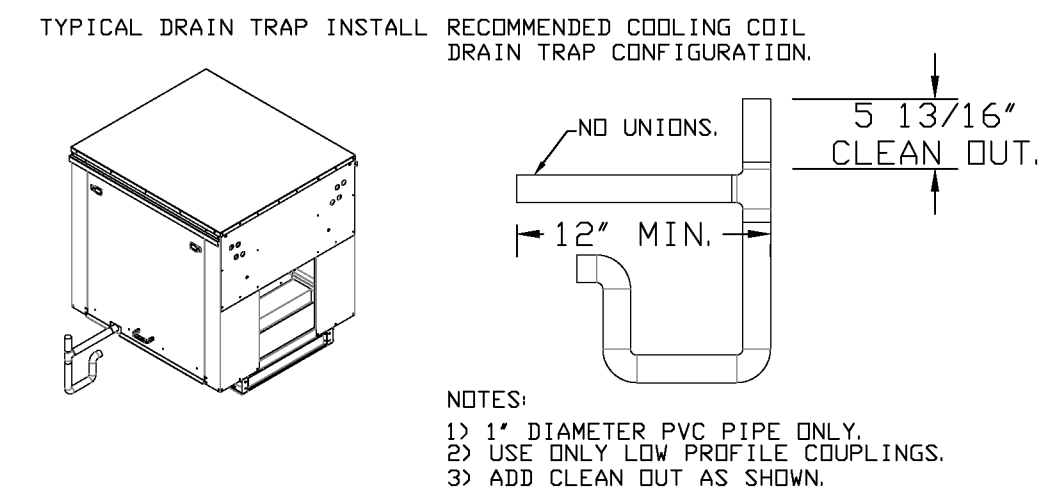
SUPPLY SIDE HEATER INFORMATION

WINTER TEMPERATURE = 1°F, TEMP. RISE = 70°F.
BTUH CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUH AT ALTITUDE OF 0.0 FT. = 286320
INPUT BTUH AT ALTITUDE OF 0.0 FT. = 31218
OUTPUT BTUH AT ALTITUDE OF 661 FT. = 279547
INPUT BTUH AT ALTITUDE OF 661 FT. = 303956

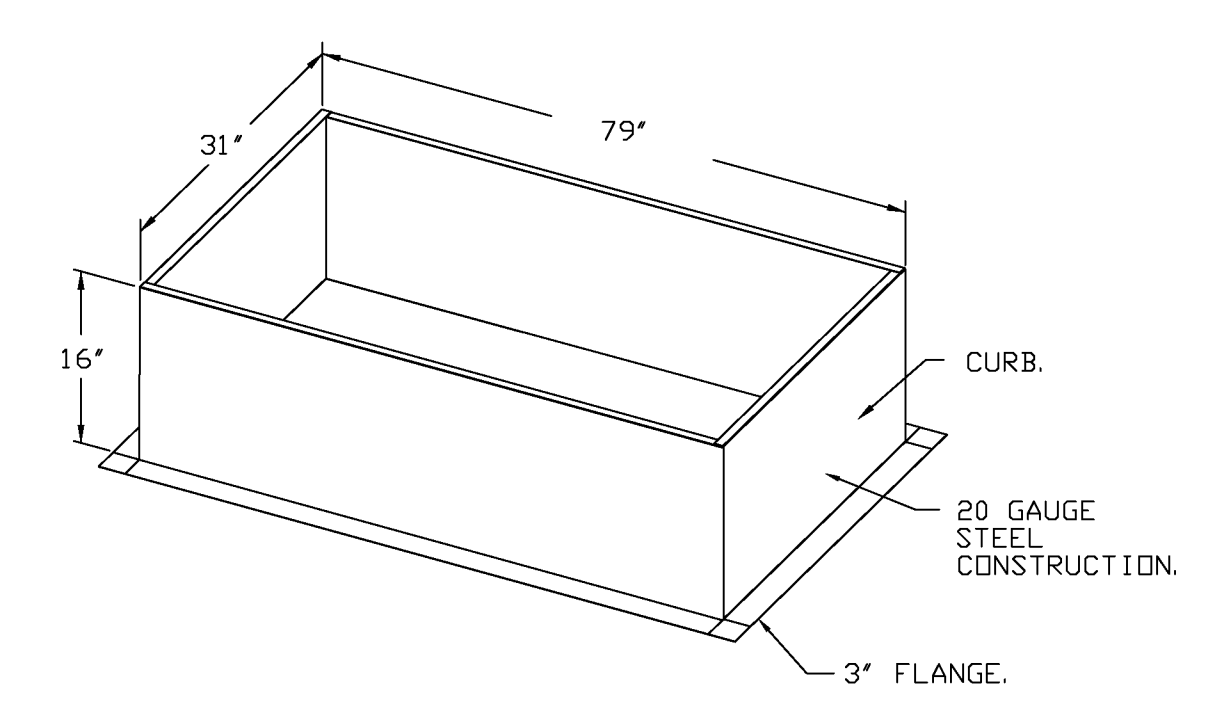
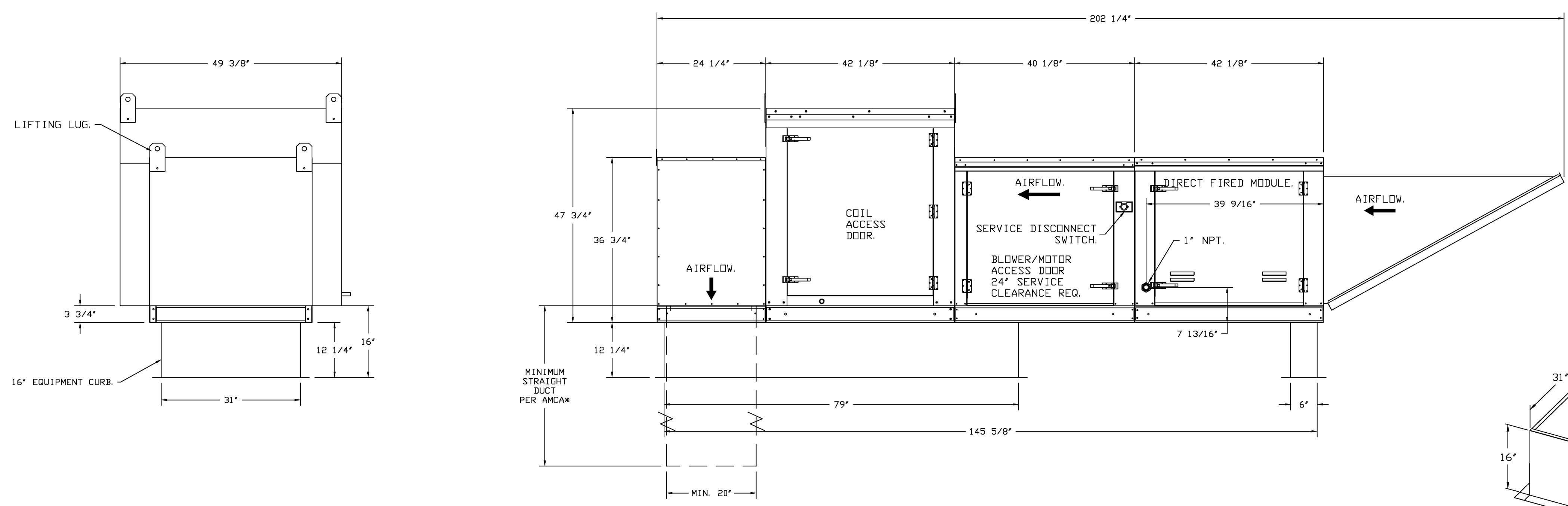
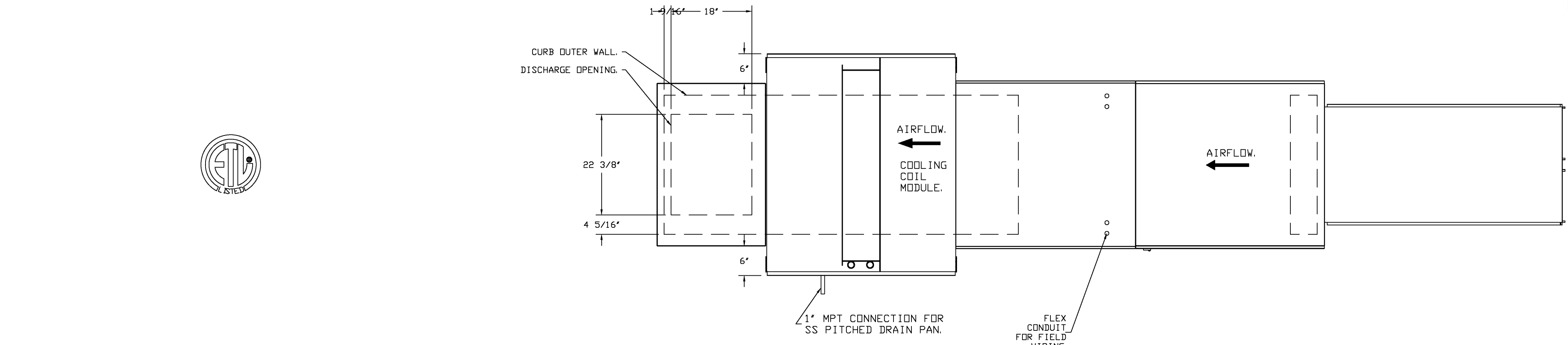
TWO 5T CONDENSERS TO SHIP LOOSE WITH MUA,
ELECTRICAL, MOUNTING RAILS, REFRIGERATION
LINE SETS BY OTHERS.



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



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



OPTIONS:
- FULL BOTTOM CORNERS.

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
 www.captiveaire.com
 Charlotte/Hedmont
 6303 Camel Road Suite 105, Charlotte, NC 28226
 PHONE: (704) 844-5888 FAX: 919-277-9952 EMAIL: reg3@capliveaire.com

Firebirds - New Albany, OH
 NEW ALBANY, OH, 43054

DATE: 3/20/2024
 DWG.#: 6687721
 DRAWN BY: evan zipper
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING
 SHEET NO. 6

REVISIONS

NO.	DESCRIPTION	DATE

www.captiveaire.com
www.captiveaire.com
Charlotte/Piedmont
6036 Camel Road Suite 105, Charlotte, NC 28226 PHONE: (704) 844 - 9856 FAX: 9192279952 EMAIL: reg@captivaire.com

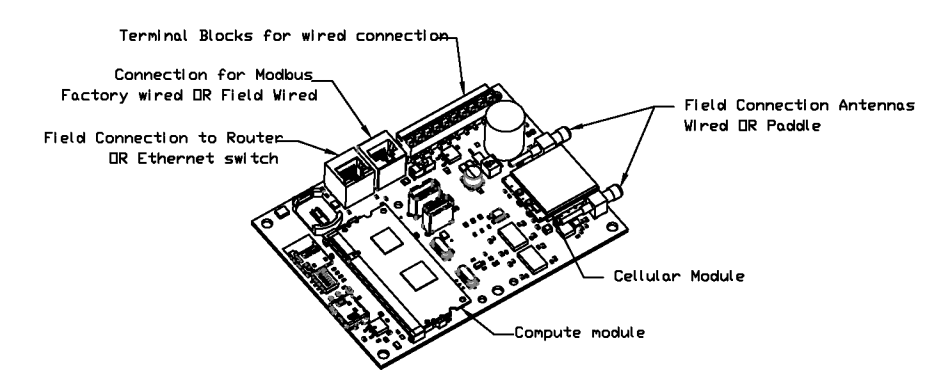
Firebirds - New Albany, OH
NEW ALBANY, OH, 43054

DATE: 3/20/2024
DWG.#: 6687721
DRAWN BY: evan.zipper
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 8

ELECTRICAL PACKAGE - JOB#6687721

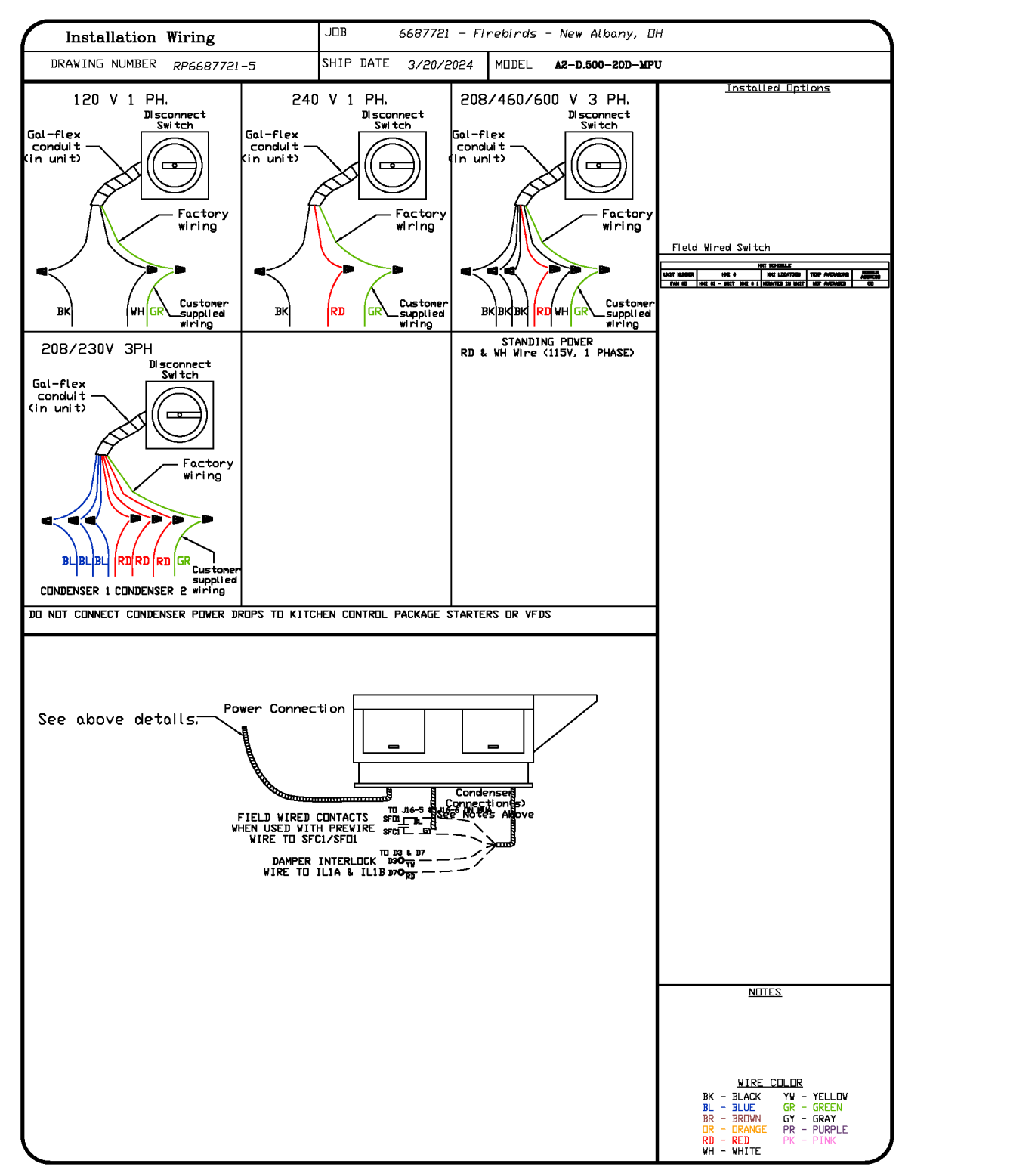
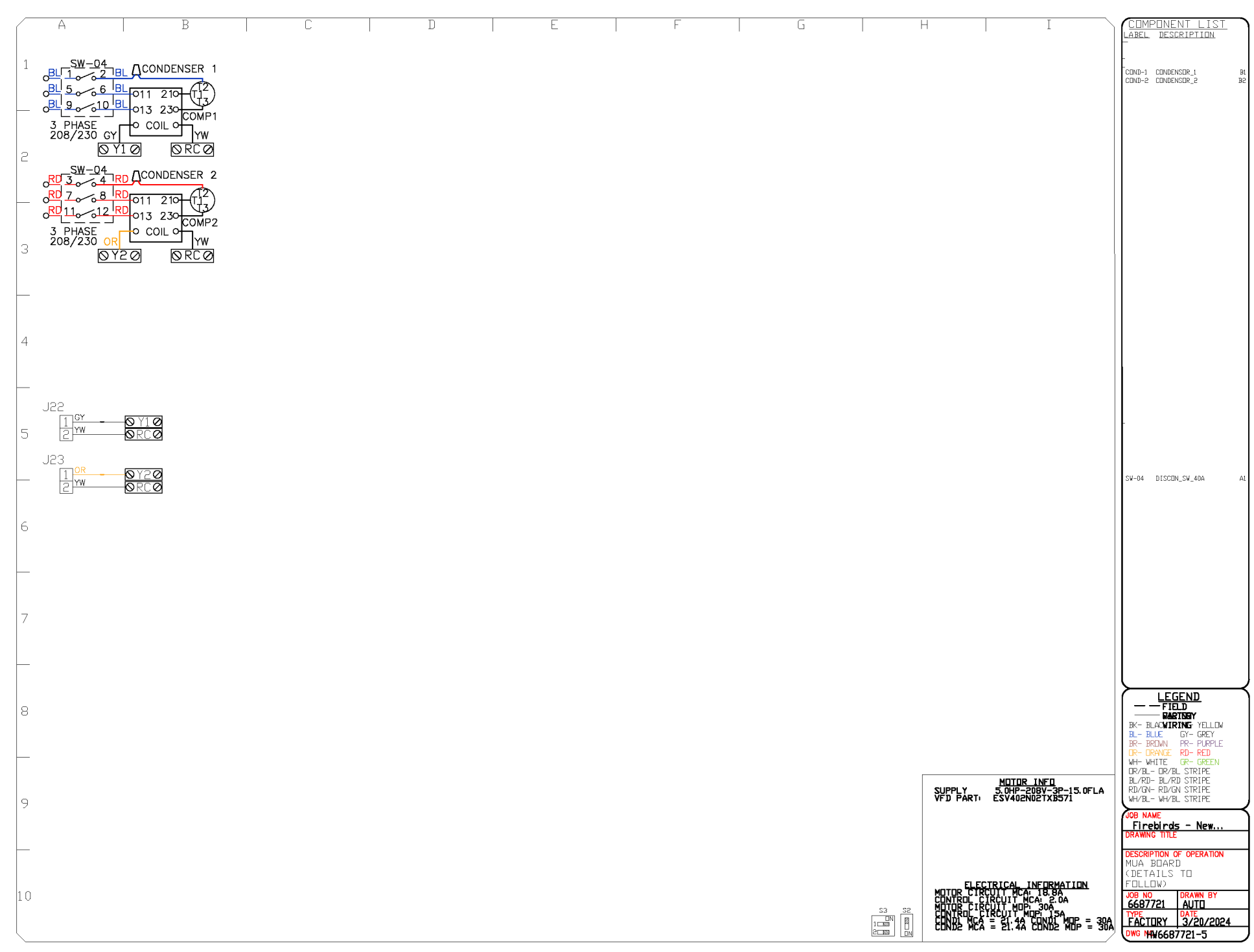
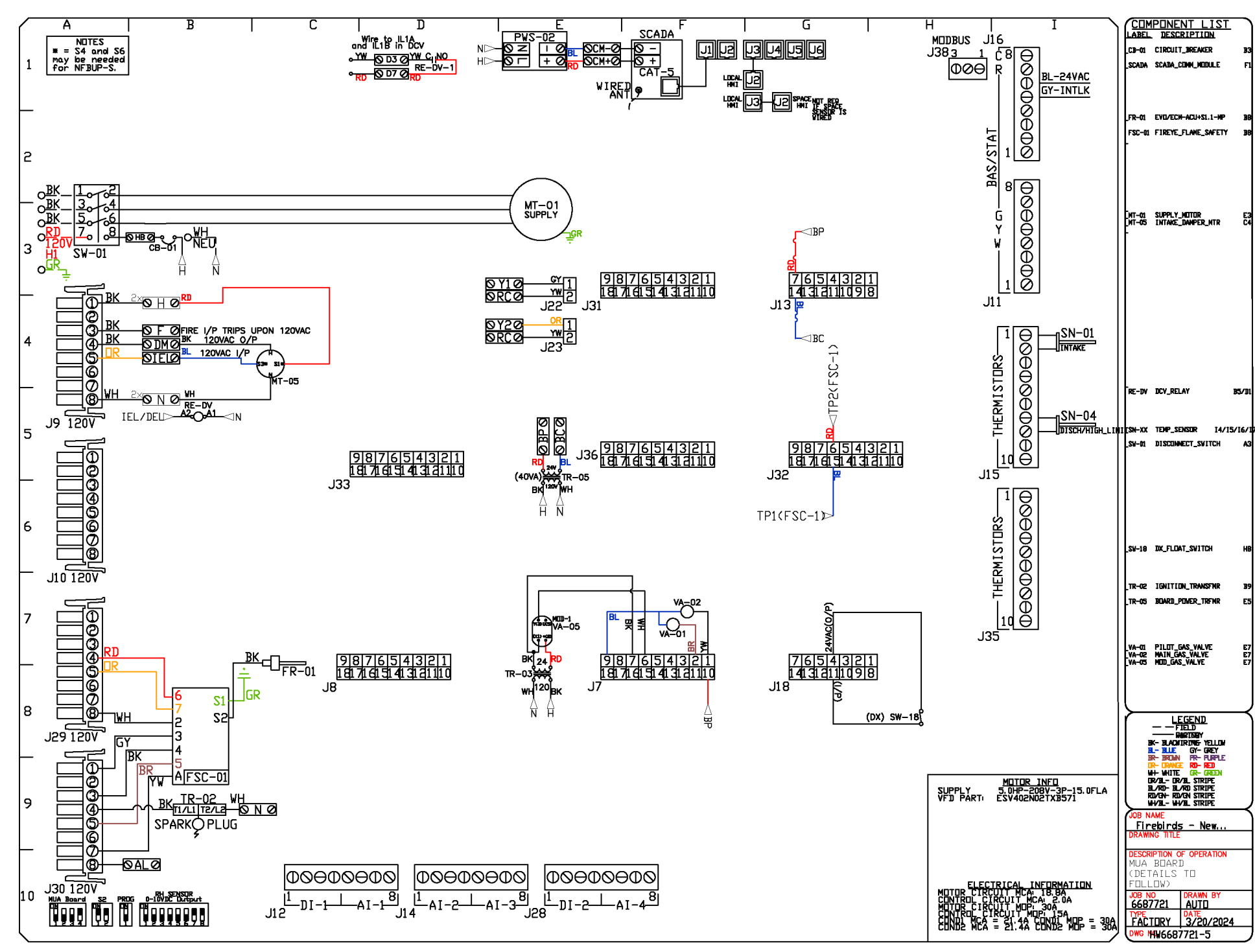
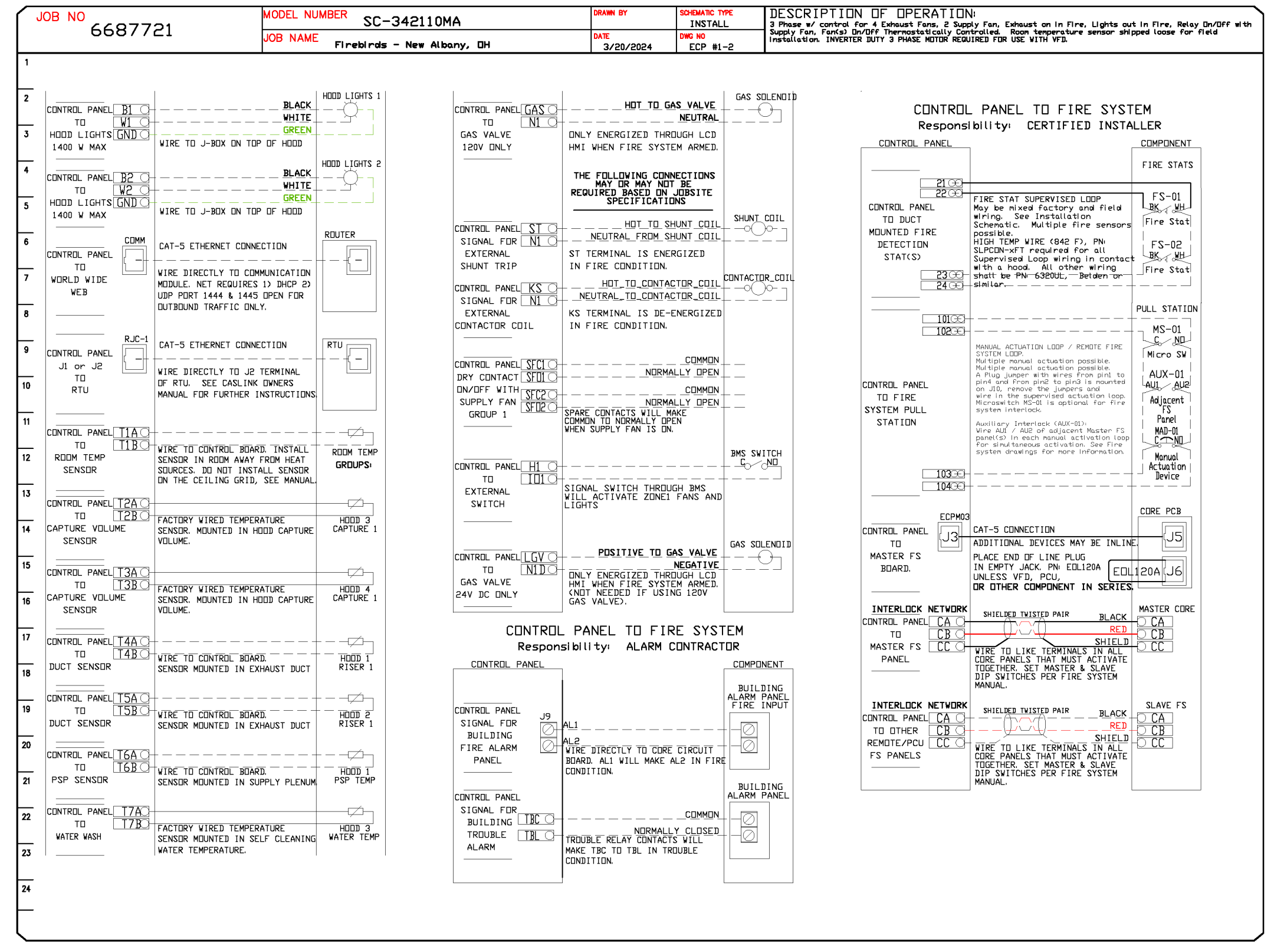
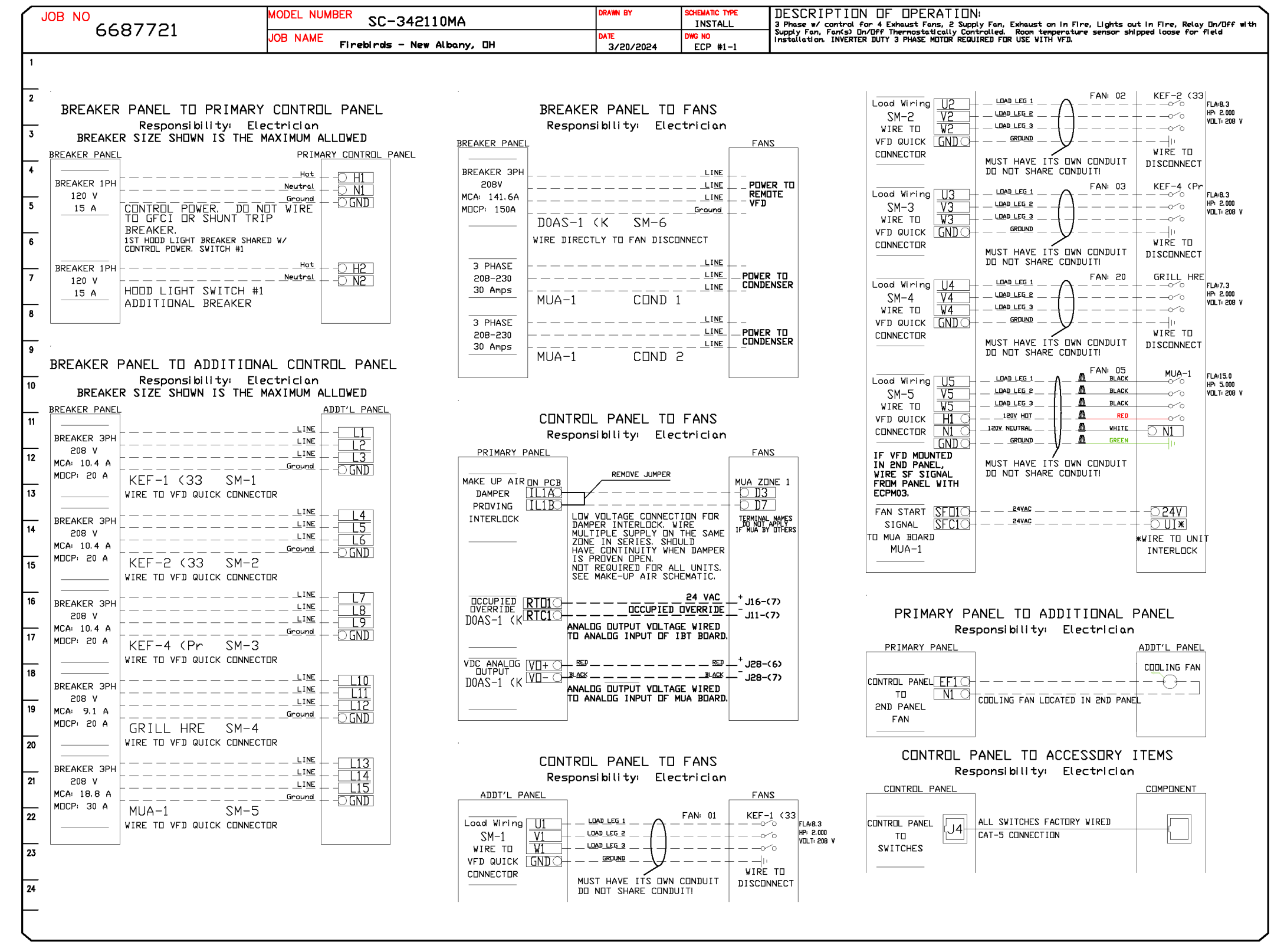
NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	HP	VOLT	FLA	
1	SC-342110MA	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1	LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	KEF-1 (33 LEFT)	EXHAUST	3	2,000	208	8.3
			HOOD # 3	1	FAN		KEF-2 (33 RIGHT)	EXHAUST	3	2,000	208	8.3
							KEF-4 (Prep)	EXHAUST	3	2,000	208	8.3
							MUA-1	SUPPLY	3	5,000	208	15.0
							DDAS-1 (Kitchen)	EXHAUST	3	2,000	208	7.3



CASlink Monitor and Control
- Hood control panel to support communications to cloud-based Building Management System
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined on MONITOR in the system list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined on CONTROL in the system list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

MONITORING AND CONTROL POINTS LIST

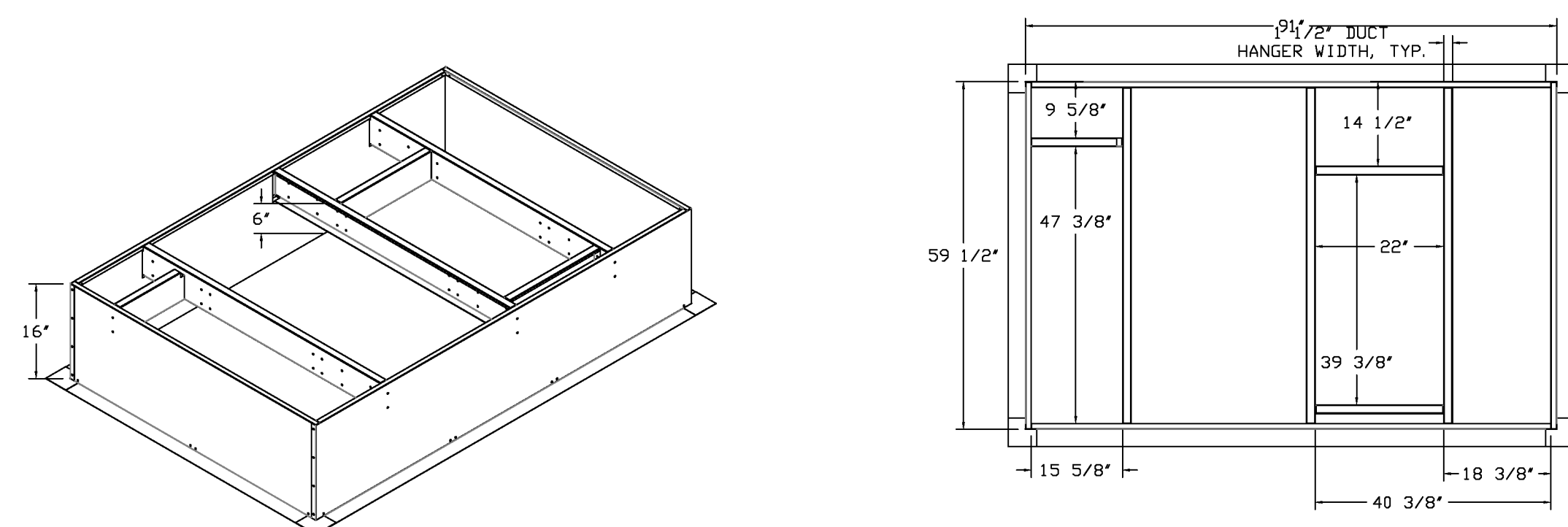
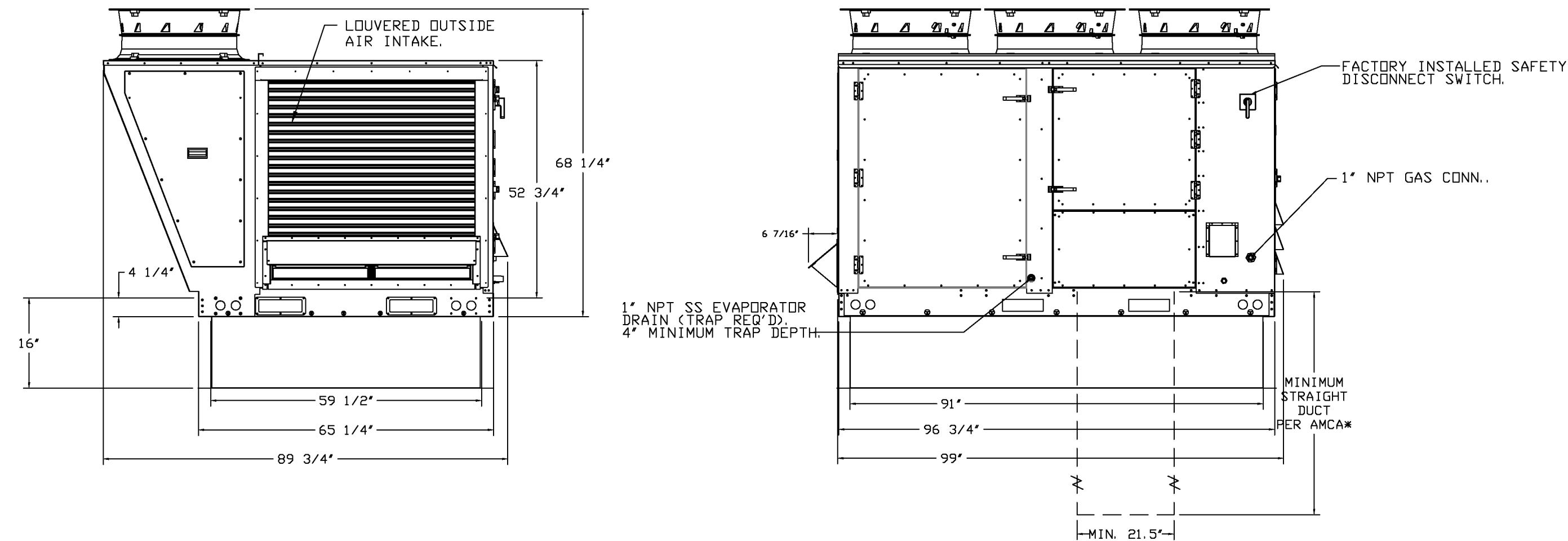
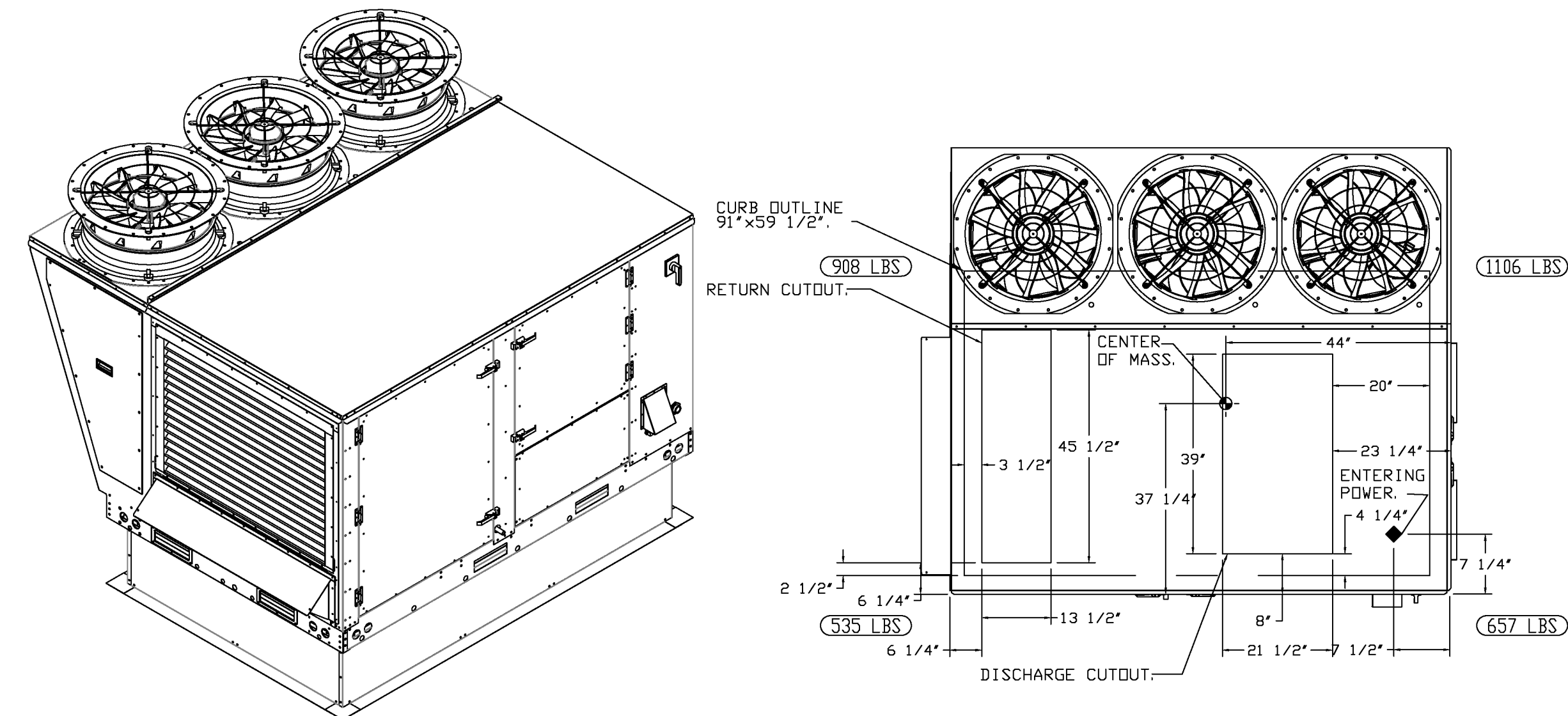
DCV Package	Function	DC Package	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
WMA Storage Temperature	MONITOR	WMA Storage Temperature	MONITOR
Kitchen PTU Package Temperature	MONITOR	Kitchen PTU Package Temperature	MONITOR
Fan Speed	MONITOR	Condenser Fan(s)	MONITOR
Fan Amps	MONITOR	Fan Status	MONITOR
PTU Status	MONITOR	Fan Status	MONITOR
Condenser Fan(s)	MONITOR	PTU Filter Clap Percentage	MONITOR
Fan Status	MONITOR	COND Fan System	MONITOR
PTU Status	MONITOR	Building Pressure	MONITOR
PTU Filter Clap Percentage	MONITOR	Fan Buttons(s)	FAN MONITOR & CONTROL
Fan Status	MONITOR	Light Buttons(s)	MONITOR & CONTROL
Building Pressure	MONITOR	Flash Buttons	MONITOR & CONTROL
Prep Area Buttons	MONITOR & CONTROL		
Fan Buttons	MONITOR & CONTROL		
Light Buttons	MONITOR & CONTROL		
Flash Buttons	MONITOR & CONTROL		



FAN #6 CASRTU3-1.500-24-30T - HEATER (DOAS-1 (KITCHEN))

- NOTES:
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
 - (C) DENOTES CORNER WEIGHT.
 - ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
 - CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.

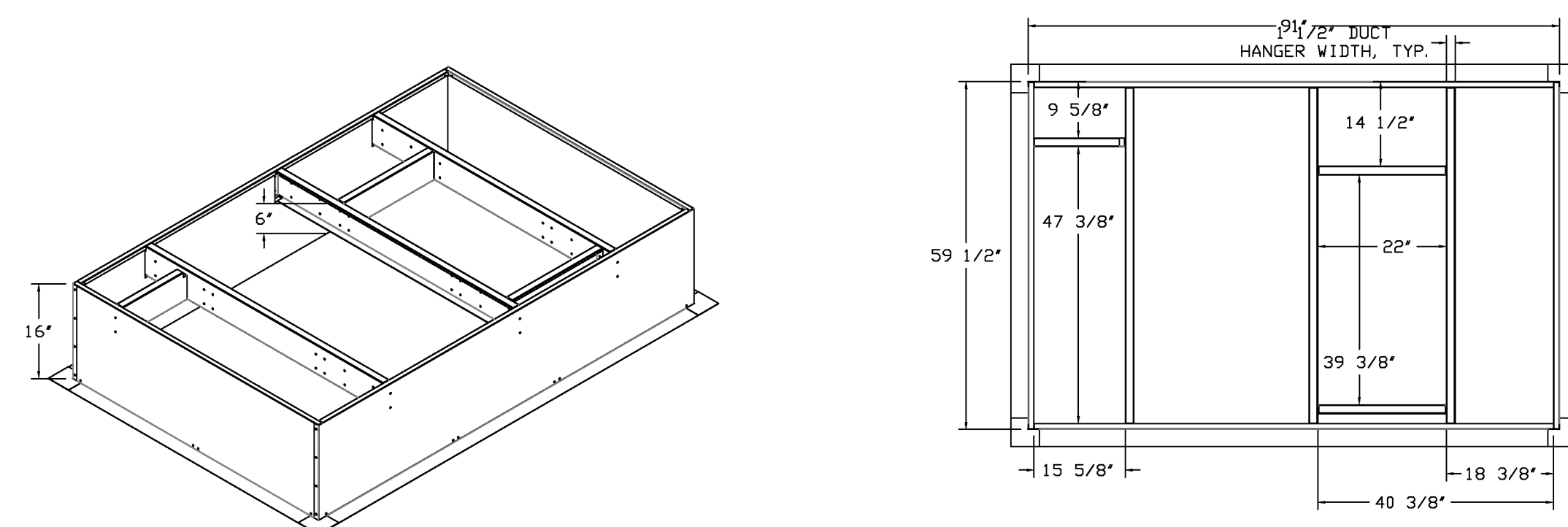
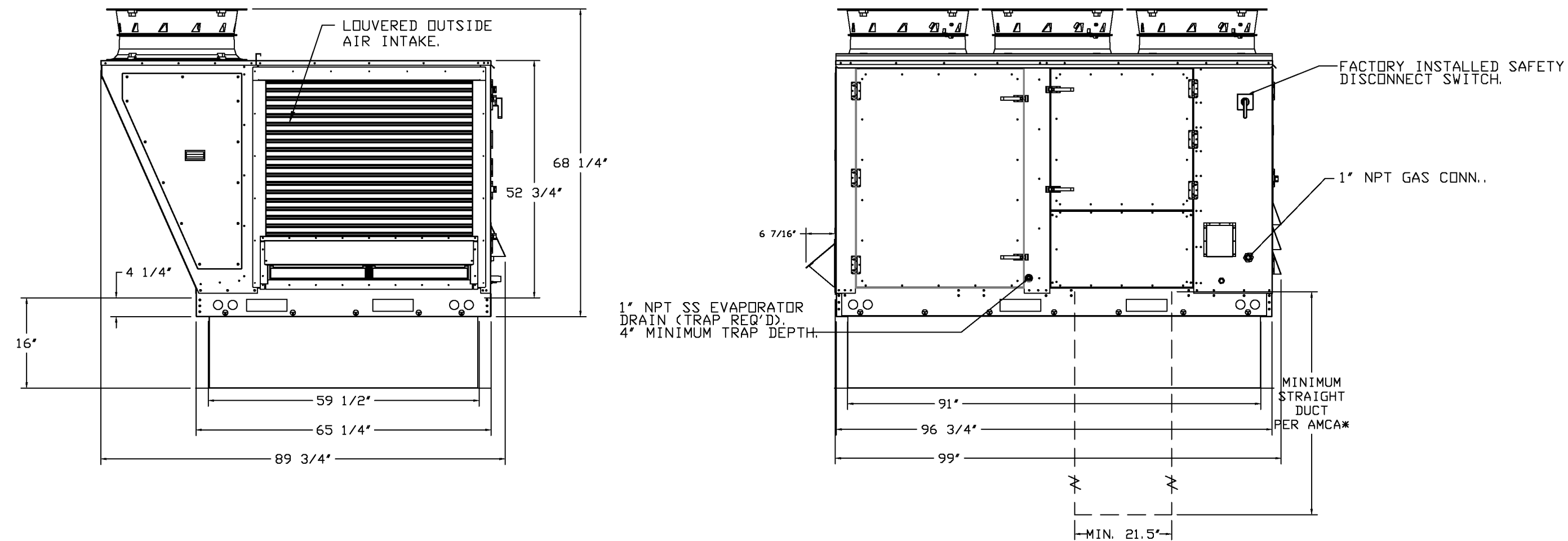
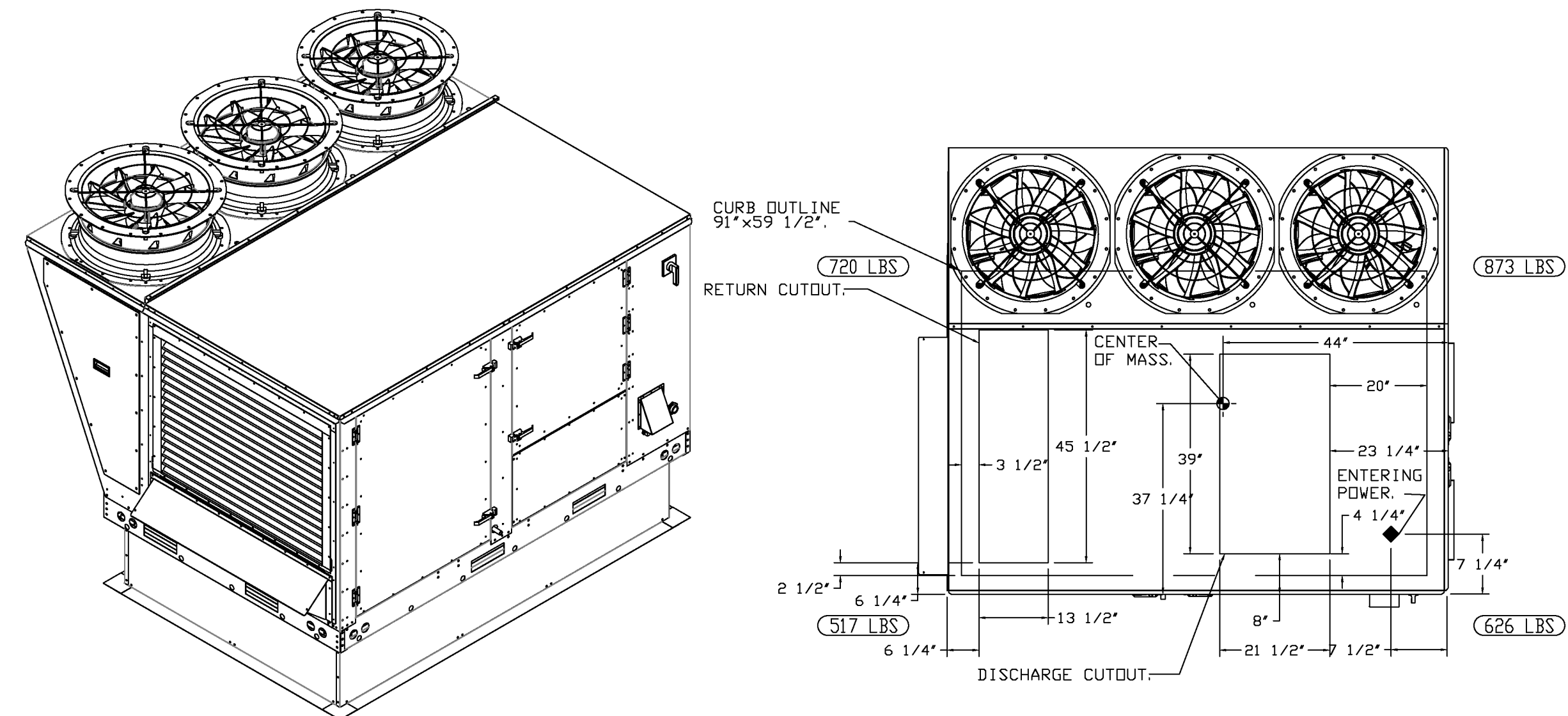
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 21.5" x 39".



FAN #7 CASRTU3-1.500-20-20T - HEATER (RTU-1)

- NOTES:
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
 - (C) DENOTES CORNER WEIGHT.
 - ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
 - CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.

*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 21.5" x 39".



REVISIONS	DESCRIPTION	DATE



Firebirds - New Albany, OH
NEW ALBANY, OH, 43054

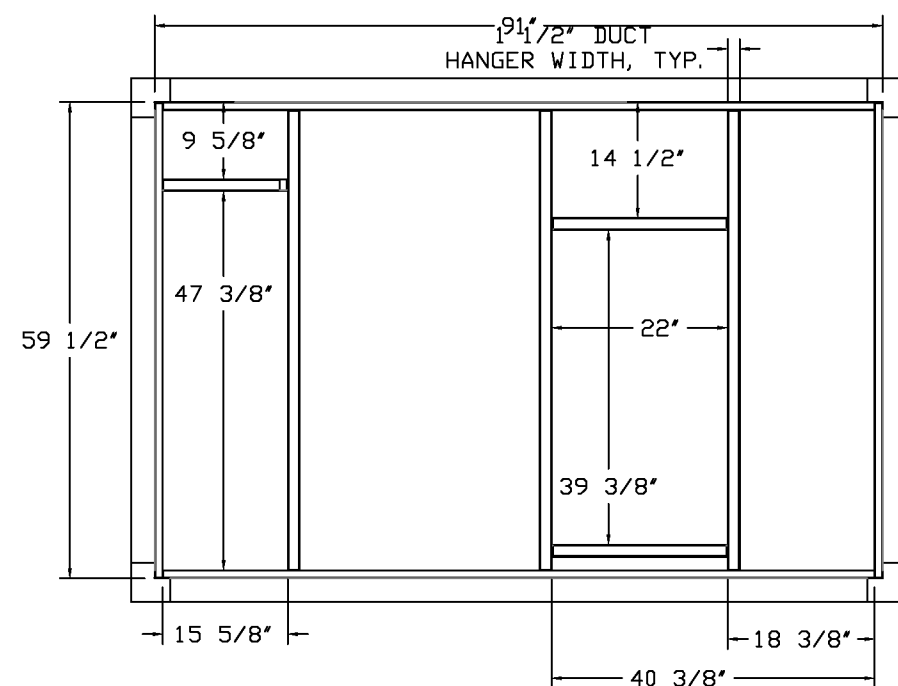
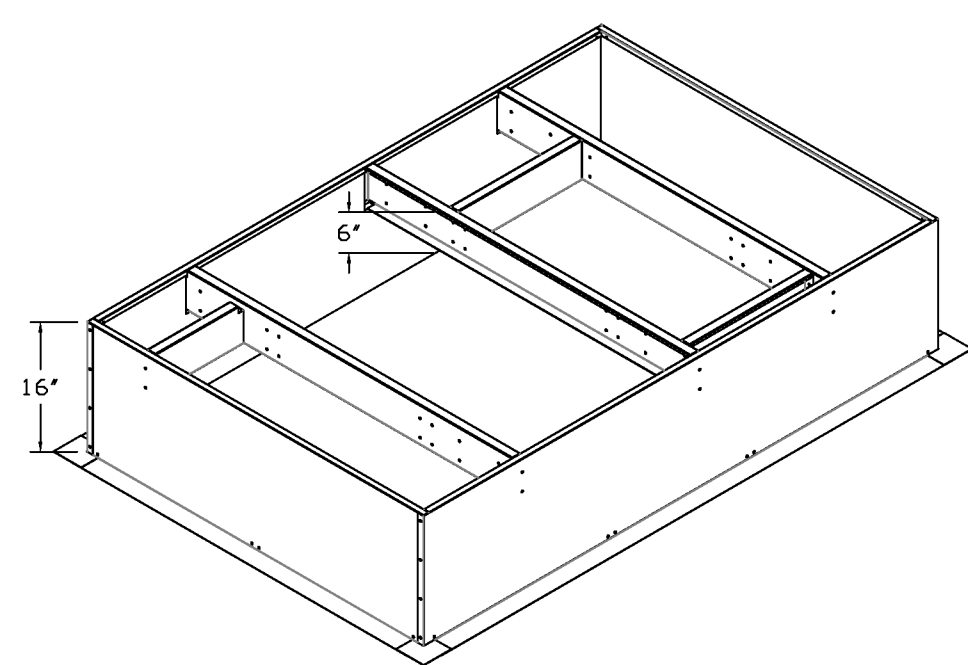
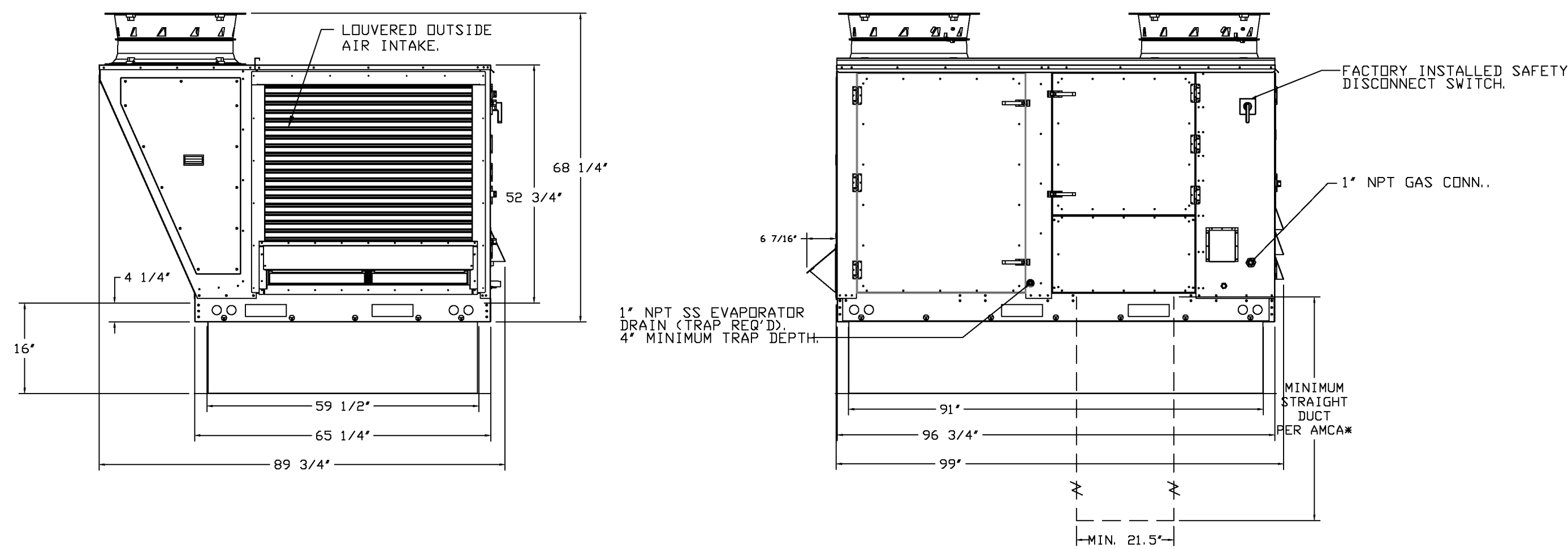
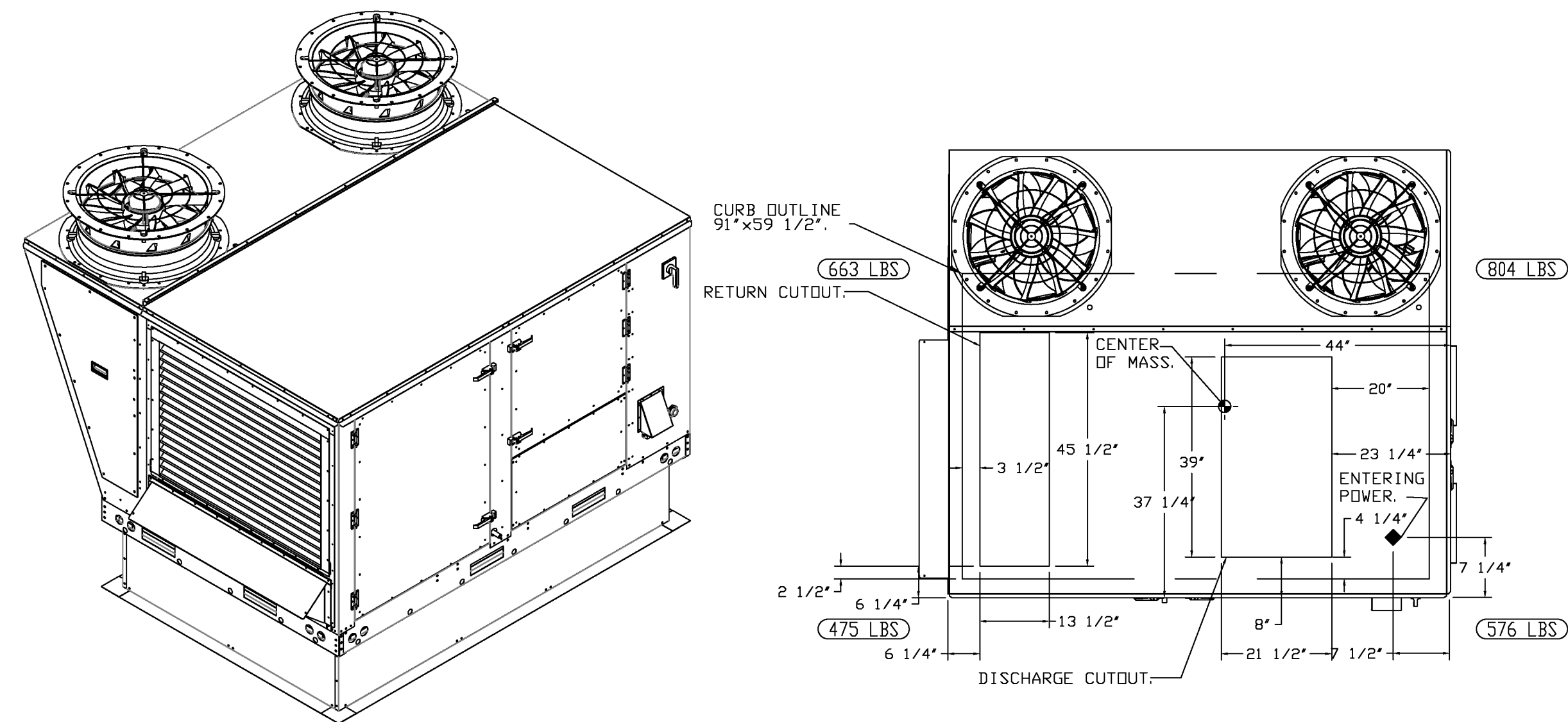
DATE: 3/20/2024
DWG.#: 6687721
DRAWN BY: evan.zipper
SCALE: 1/2" = 1'-0"
MASTER DRAWING

SHEET NO. 11

FAN #8 CASRTU3-I.300-18-15T - HEATER (RTU-2)

- 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.
 - CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.

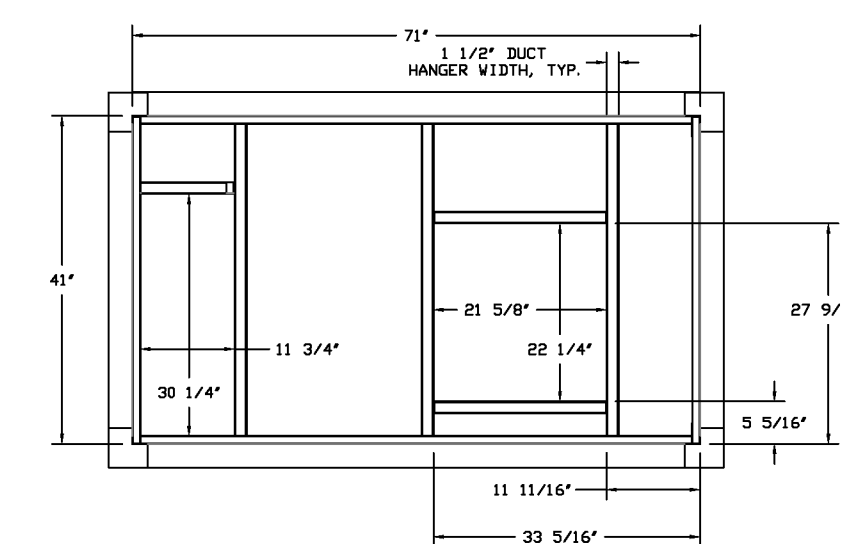
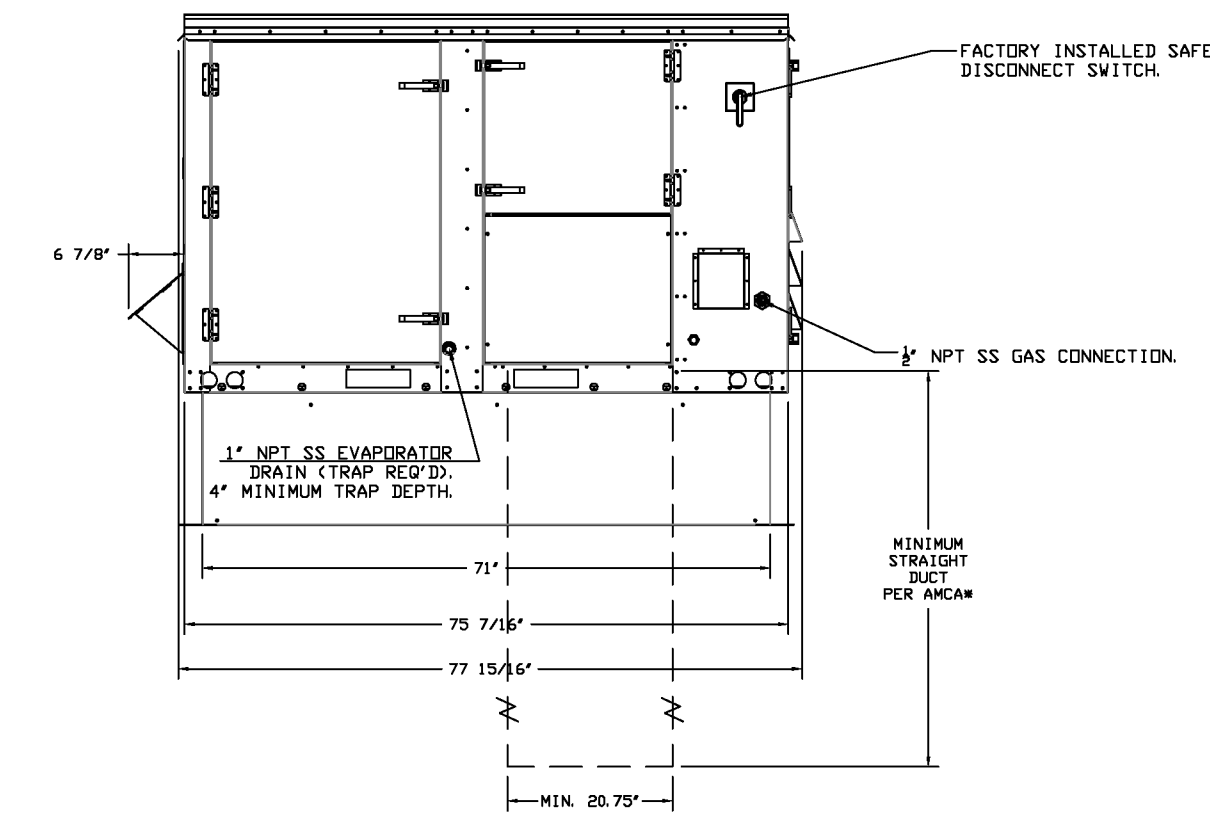
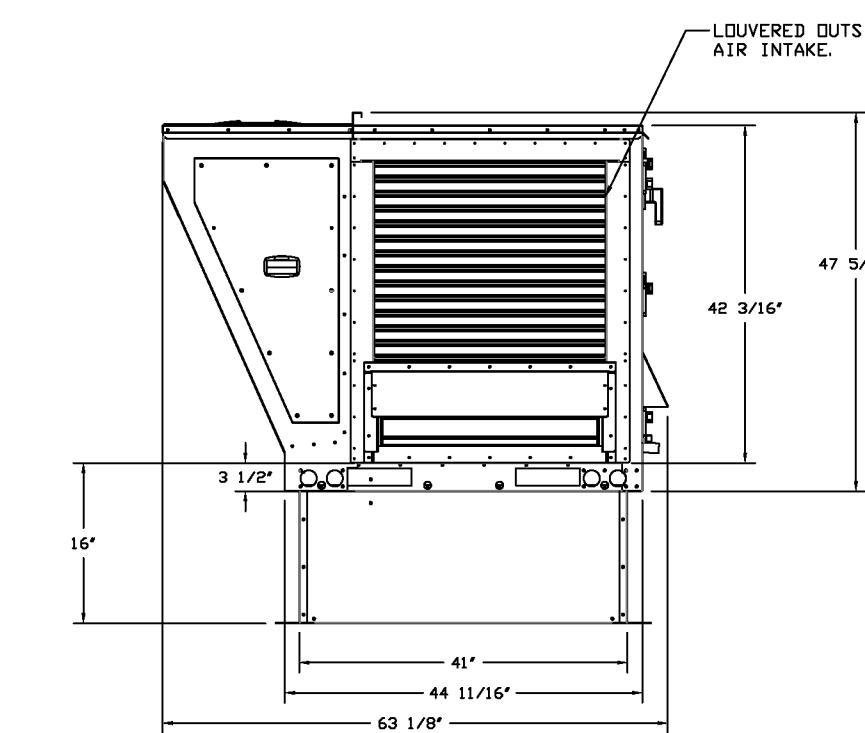
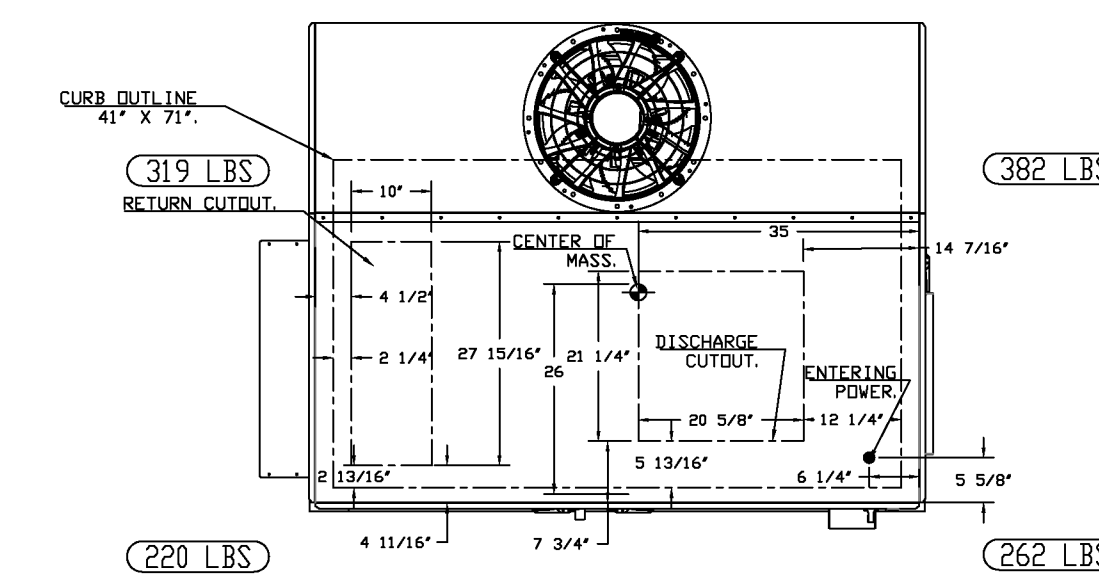
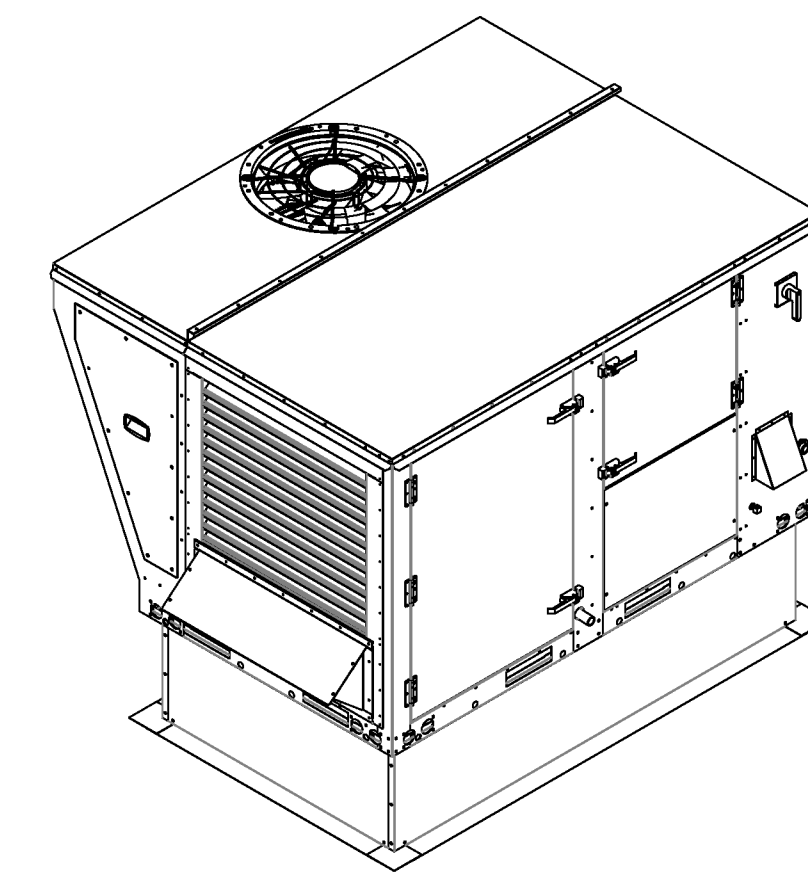
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE 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 21.5' x 39'.



FAN #9 CASRTU1-I.125-13-5T - HEATER (RTU-3)

- 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.
 - CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.

*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 20.75' x 21.5'.



REVISIONS	
DESCRIPTION	DATE



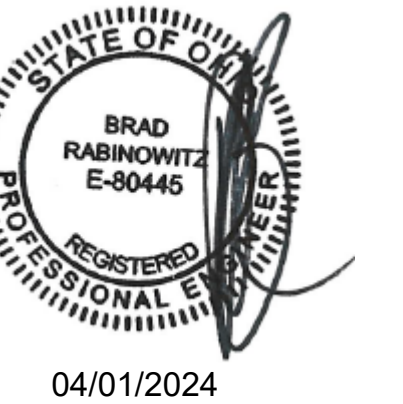
Firebirds - New Albany, OH
NEW ALBANY, OH, 43054

DATE: 3/20/2024
DWG.#: 6687721
DRAWN BY: evan zipper
SCALE: 1/2" = 1'-0"
MASTER DRAWING

SHEET NO.
12

CONSTRUCTION
DOCUMENTS
04/01/2024

No.	Description	Date



04/01/2024

REVISIONS	DESCRIPTION	DATE
1		
2		
3		
4		

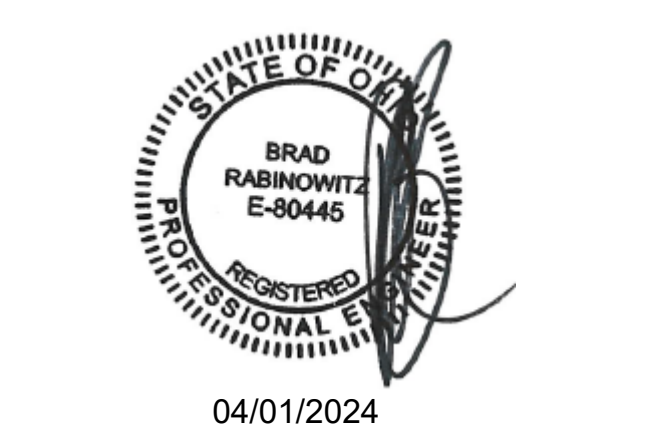


Firebirds - New Albany, OH
NEW ALBANY, OH, 43054

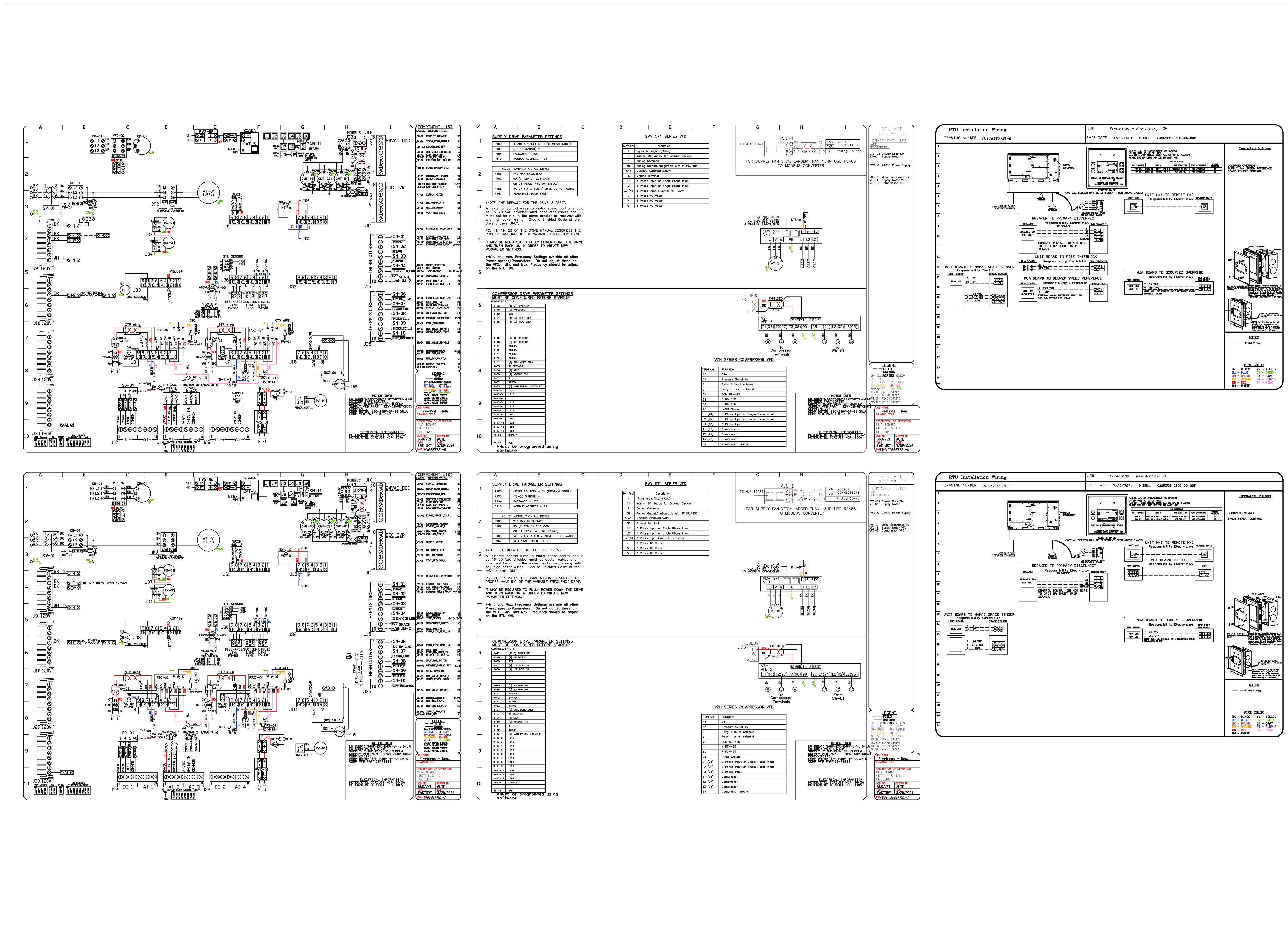
DATE: 3/20/2024
DWG.#: 6687721
DRAWN BY: evan.zipper
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 13

CONSTRUCTION DOCUMENTS
04/01/2024

No.	Description	Date



04/01/2024



DUCTWORK #1 PARTS - JOB#6687721 DOUBLE WALL HD-38 GRILL DUCT

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1847DWLT-3Z-S						94.70		1	DOUBLE WALL DUCT - 18" INNER DUCT, 47' LONG - 3 LAYERS ZERO CLEARANCE - 24" STAINLESS STEEL OUTER SHELL.
P2	DW1847DWLT-3Z-S						94.70		1	DOUBLE WALL DUCT - 18" INNER DUCT, 47' LONG - 3 LAYERS ZERO CLEARANCE - 24" STAINLESS STEEL OUTER SHELL.
P3 ASSEMBLED W/P4	DW1847DWAJDP-3Z-S						131.92		1	DOUBLE WALL ADJUSTABLE DUCT TRANSITION PLATE - 18" INNER DUCT - 3 LAYERS ZERO CLEARANCE - 24" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5' / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P4 ASSEMBLED W/P3 D=B	DW2818TP						12.00		1	DUCT TO CURB TRANSITION, 28" CURB TO 18" DUCT, 16 GA ALUMINIZED. MISC. NON-STANDARD TRANSITION PLATE.
	3M-2000PLUS						0.80		1	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW18DWCLASY-3Z-S						7.85		2	DUCT - 18" DUCT - 24" DOUBLE "V" CLAMP - 3Z INSULATION & SINGLE "V" CLAMP INCLUDED - ZERO CLEARANCE.
TOTAL WEIGHT							349.82			

SINGLE WALL FACTORY BUILT DUCTWORK

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

DUCT DIAMETER	HORIZONTAL SUPPORT (FT)	VERTICAL WALL SUPPORT (FT)	VERTICAL CURB SUPPORT (FT)
5"	10'	10'	24'
6"	10'	10'	24'
7"	10'	10'	24'
8"	10'	10'	24'
10"	10'	10'	24'
12"	10'	10'	24'
14"	10'	10'	24'
16"	10'	10'	24'
18"	10'	10'	24'
20"	10'	10'	24'
22"	10'	10'	24'
24"	10'	10'	24'
26"	10'	10'	24'
28"	10'	10'	24'
30"	10'	10'	24'
32"	10'	10'	24'
34"	10'	10'	24'
36"	10'	10'	24'

DOUBLE WALL FACTORY BUILT DUCTWORK

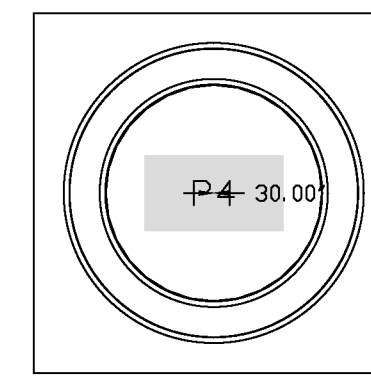
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (FT)
5"	7'
6"	7'
7"	7'
8"	7'
10"	7'
12"	7'
14"	7'
16"	7'
18"	5'
20"	5'
22"	5'
24"	5'
26"	5'
28"	5'
30"	5'
32"	5'
34"	5'
36"	5'

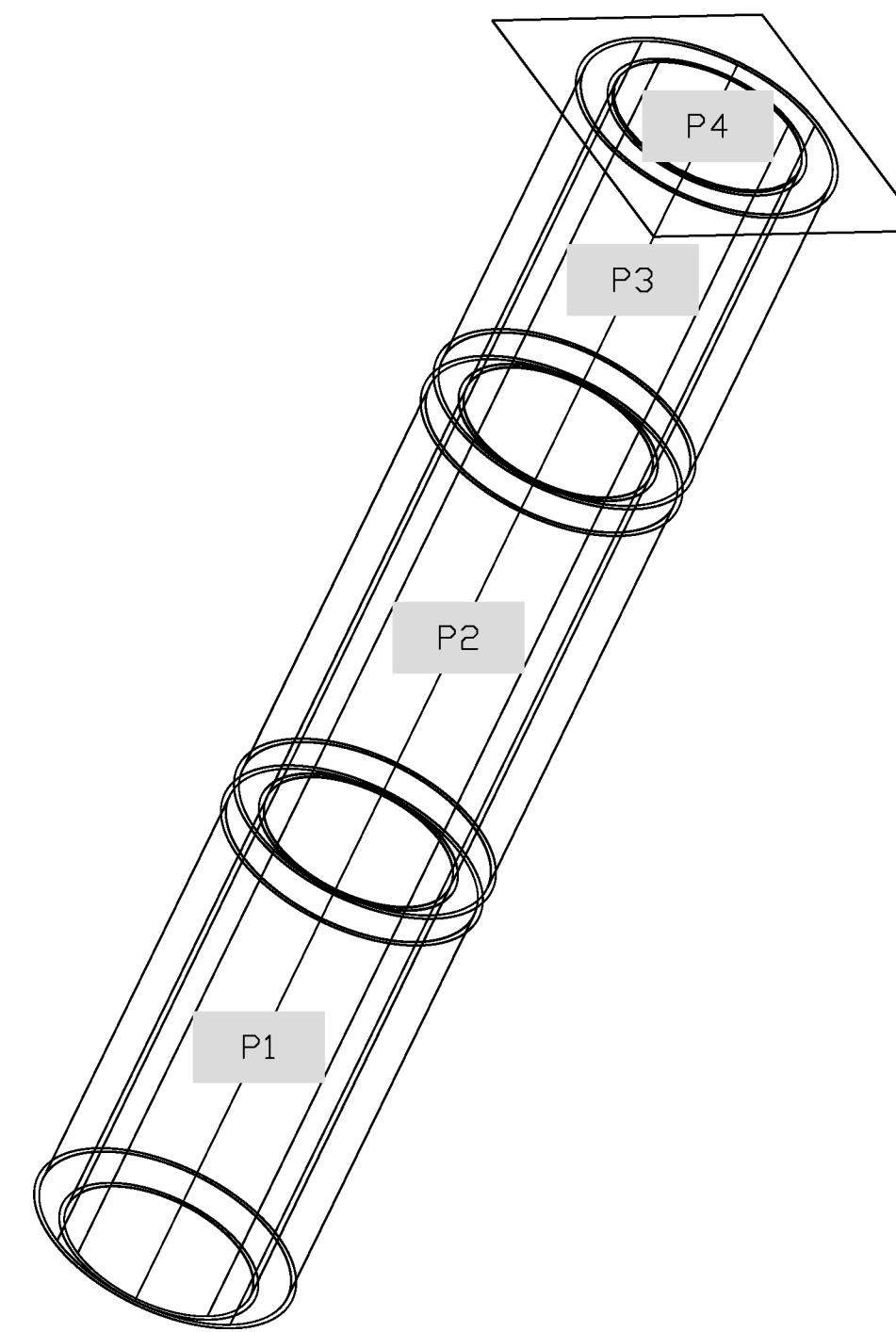
VERTICAL			
TYPE	WALL SUPPORT (FT)	CURB SUPPORT (FT)	FLOOR SUPPORT (FT)
2R & 2R HT (5'-16")	20'	24'	24'
2R (18")	18'	24'	24'
3R & 3Z (5'-24")	10'	24'	24'
3Z (26'-36")	10'	20'	20'

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

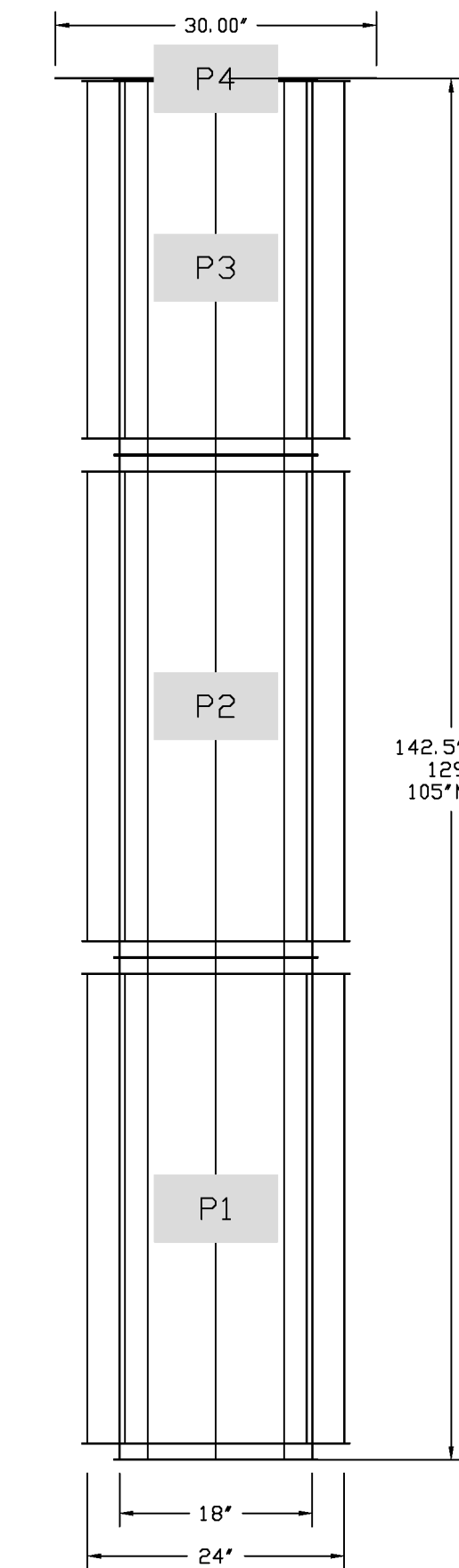
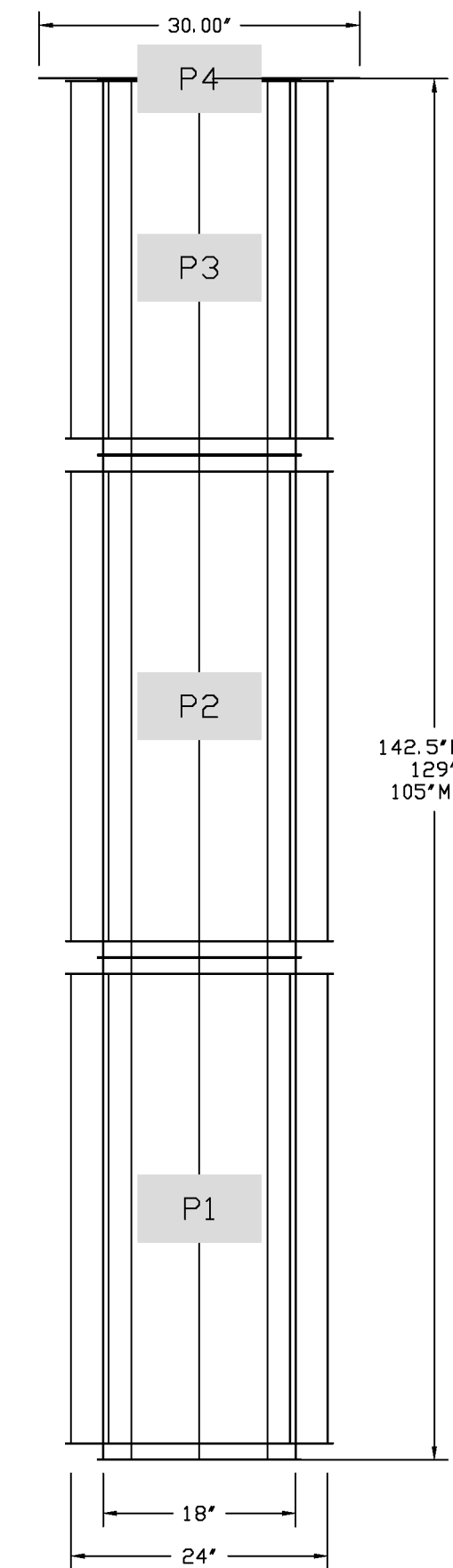
DUCTWORK #1 TOP VIEW
HD-38 GRILL DUCT



DUCTWORK #1 SE VIEW
HD-38 GRILL DUCT

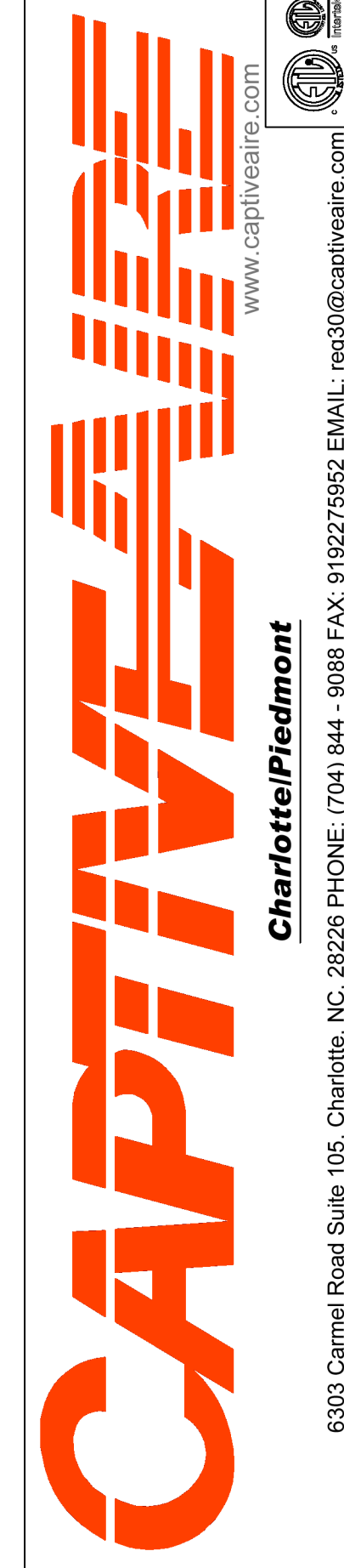


DUCTWORK #1 FRONT VIEW DUCTWORK #1 SIDE VIEW
HD-38 GRILL DUCT HD-38 GRILL DUCT



DUCT SHOWN FOR REFERENCE ONLY.
FINAL DUCT AND DIMENSIONS BASED ON FIELD CONDITIONS.

REVISIONS	
DESCRIPTION	DATE



Firebirds - New Albany, OH
NEW ALBANY, OH, 43054

DATE: 3/20/2024
DWG.#: 6687721
DRAWN BY: evan.zipper
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 15