

**OUTSIDE AIR CALCULATIONS**

Ventilation Sizing Summary for OUTSIDE AIR

Project Name: 2022-0338 Firebirds Plano  
Prepared by: Barnet Woodard & Associates  
10/06/2022  
07:53AM

1. Summary  
Ventilation Sizing Method: **ASHRAE Std 62.1-2019**  
Design Condition: **Heating operation**  
Occupant Diversity (D): **1.000**  
Unrecirculated Outdoor Air Intake (Vou): **2392** CFM  
System Ventilation Efficiency (Ev): **0.688**  
Outdoor Air Intake (Vot): **3476** CFM

2. Space Ventilation Analysis

Zone Name / Space Name	Mult.	Supply Air (CFM)	Space Floor Area (Sq Ft)	Area Outdoor Air Rate (CFM/Sq Ft)	Time Averaged Occupancy (Person)	People Outdoor Air Rate (CFM/Person)	Air Distribution Effectiveness (Ez)	Space Outdoor Air (CFM)	Breathing Zone Outdoor Air (CFM)	Space Ventilation Efficiency (Evz)
01 - VESTIBULE	1	369	101.0	0.18	0.0	7.50	0.8	23	18	1.111
02 - HOSTESS	1	289	101.0	0.18	2.0	7.50	0.8	41	33	1.030
03 - LOUNGE	1	944	379.0	0.18	28.0	7.50	0.8	348	279	0.895
04 - MAIN DINING	1	2096	1396.0	0.18	114.0	7.50	0.8	1383	1106	0.711
05 - BAR	1	1857	695.0	0.18	19.0	7.50	0.8	335	269	0.993
06 - TO-GO	1	105	55.0	0.18	1.0	7.50	0.8	22	17	0.956
08 - PRIVATE DINING	1	1217	418.0	0.18	26.0	7.50	0.8	338	270	0.895
09 - CORRIDOR	1	28	66.0	0.08	0.0	0.00	0.8	5	4	0.999
10 - WOMEN	1	41	142.0	0.09	0.0	0.00	0.8	6	5	1.173
11 - MEN	1	31	128.0	0.00	0.0	0.00	0.8	0	0	1.173
12 - DATA	1	28	28.0	0.12	0.0	5.00	0.8	4	3	1.024
13 - COOKLINE	1	2549	436.0	0.12	4.0	7.50	0.8	166	165	1.131
14 - BEVERAGE	1	111	115.0	0.18	3.0	7.50	0.8	54	42	0.888
15 - DISH	1	505	285.0	0.12	2.0	7.50	0.8	62	49	1.051
16 - PREP	1	2146	372.0	0.12	4.0	7.50	0.8	93	75	1.129
17 - PREP/STORAGE	1	216	355.0	0.12	1.0	5.00	0.8	60	49	0.998
18 - OFFICE	1	35	82.0	0.08	1.0	5.00	0.8	12	10	0.821
19 - STOR	1	36	70.0	0.12	0.0	5.00	0.8	11	8	0.884
23 - RISER	1	133	61.0	0.06	0.0	5.00	0.8	6	5	1.127
24 - SERVER ALLY	1	195	313.0	0.18	2.0	7.50	0.8	89	71	0.716
<b>Totals (incl. Space Multipliers)</b>		<b>13834</b>							<b>2392</b>	<b>0.688</b>

Hourly Analysis Program 5.11

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NOTE: THE OUTSIDE AIR SERVING THE KITCHEN RTU SHALL REMAIN UNCHANGED.

**PACKAGED ROOFTOP UNIT SCHEDULE**

I.D. TAG	MINIMUM TOTAL CAP.	MINIMUM SENSIBLE CAP.	AMBIENT TEMP. (°F)	EAT D.B.	EAT W.B.	AIRFLOW	EXT. S.P. (1)	MAX H.P.	HEAT TYPE	GAS HEAT INPUT	GAS HEAT OUTPUT	VOLTAGE	PHASE	BASIS OF DESIGN	EER	WEIGHT	REMARKS
RTU-1	129.0 MBH	113.2 MBH	95°F	75.2°F	63.6°F	5000 CFM	1.0 IN-WG	3.1	GAS	150 MBH	120 MBH	208	3	TRANE YS150	10.8	1351 LBS	2, 3, 4, 5, 6, 7, 8, 9
RTU-2	53.0 MBH	43.7 MBH	95°F	76.3°F	64.2°F	1600 CFM	1.0 IN-WG	1.0	GAS	60 MBH	49 MBH	208	3	TRANE YHC048	11.6	976 LBS	2, 3, 6, 7, 8, 9

- EXT. SP. DOES NOT INCLUDE COIL, CASING, FILTER OR HEATER LOSSES.
- FANS SHALL RUN CONTINUOUSLY WHILE BUILDING IS IN OCCUPIED MODE.
- PROVIDE RTU WITH COMPARATIVE ENTHALPY ECONOMIZER.
- PROVIDE SMOKE DETECTION ON SUPPLY & RETURN OF UNIT. UPON DETECTION OF SMOKE, SIGNAL SHALL BE SENT TO FIRE ALARM PANEL. PROVIDE AUDIO VISUAL ALARMS IF FIRE ALARM PANEL IS NOT AVAILABLE. PER CODE.
- UNIT SHALL BE SUPPLIED WITH DUAL COMPRESSORS.
- WEIGHT DOES NOT INCLUDE CURB WEIGHT.
- PROVIDE UNIT WITH HOT GAS REHEAT, & HUMIDITY CONTROLS.
- REFER TO AIR BALANCE SCHEDULE FOR OUTSIDE AIR CFM.
- PROVIDE UNIT WITH HAIL GUARD.

**DEDICATED OUTDOOR AIR SYSTEM SCHEDULE**

I.D. TAG	MINIMUM TOTAL CAP.	MINIMUM SENSIBLE CAP.	AMBIENT TEMP. (°F)	EAT D.B.	EAT W.B.	AIRFLOW	EXT. S.P. (1)	MAX H.P.	HEAT TYPE	GAS HEAT INPUT	GAS HEAT OUTPUT	VOLTAGE	PHASE	BASIS OF DESIGN	EER	WEIGHT	REMARKS
DOAS-1	407.6 MBH	158.5 MBH	95°F	83.5°F	77.3°F	5,170 CFM	0.5 IN-WG	2.0	GAS	400 MBH	320 MBH	208	3	ACCUREX XRV-45-30I	--	3783 LBS	2, 3
DOAS-2	414.6 MBH	161.3 MBH	95°F	83.5°F	77.3°F	5,530 CFM	0.5 IN-WG	2.0	GAS	400 MBH	320 MBH	208	3	ACCUREX XRV-45-30I	--	3783 LBS	2, 3

- EXT. SP. DOES NOT INCLUDE COIL, CASING, FILTER OR HEATER LOSSES.
- FANS SHALL RUN CONTINUOUSLY WHILE BUILDING IS IN OCCUPIED MODE.
- ALL DOAS UNITS TEMPERATURE, HUMIDITY, AND BUILDING PRESSURIZATION SHALL BE CONTROLLED IN UNISON.

**FAN SCHEDULE**

I.D. TAG	CFM	S.P.	MOTOR H.P.	DRIVE	VOLTAGE	PHASE	TYPE	BASIS OF DESIGN	REMARKS	WEIGHT
TEF-1	200 CFM	0.5 in-wg	---	D	120	1	CENTRIFUGAL EXHAUST	GREENHECK G-080	1,2,3	29 LBS
EF-5	100 CFM	0.5 in-wg	---	D	208	1	CABINET EXHAUST	GREENHECK CSP-A390	1,3	24 LBS
AIR-1	1379 CFM	---	1/2	D	115	1	AIR CURTAIN	MARS OP1036	4	60 LBS

- PROVIDE FAN WITH TIME CLOCK TO RUN DURING OCCUPIED HOURS.
- PROVIDE FAN WITH BACKDRAFT DAMPER.
- PROVIDE WITH SOLID STATE SPEED CONTROL.
- PROVIDE WITH DOOR LIMIT SWITCH.

**ELECTRIC HEATER SCHEDULE**

I.D. TAG	DESCRIPTION	CAPACITY KW	MIN CFM	FAN H.P.	S.P. (IN. WG)	VOLTS/PHASE	BASIS OF DESIGN	REMARKS
EWH-A	WALL HEATER	4.0	-	-	-	208/3	MARLEY CWH34083F	1,2
EHA	HEATER	2.0	-	-	-	208/1	BROMIC TUNGSTEN SMART HEAT	1,2,3,4

- PROVIDE HEATER WITH UNIT MOUNTED THERMOSTAT AND INTEGRAL DISCONNECT.
- PROVIDE HEATER WITH UNIVERSAL WALL CEILING MOUNTING BRACKET.
- LOCATE CONTROL SWITCHES AT HOST STAND OR WALL BELOW CHAIR.

**SEQUENCE OF OPERATION: RTU (ELEC/GAS)**

GAS HEATING/ELECTRIC COOLING ROOFTOP UNIT SEQUENCE OF OPERATION:

DAY CYCLE - COOLING:

- SUPPLY AIR FAN SHALL RUN CONTINUOUSLY
- THERMOSTAT SHALL CYCLE COMPRESSORS TO MAINTAIN ROOM SET TEMPERATURE.

DAY CYCLE - HEATING:

- SUPPLY AIR FAN SHALL RUN CONTINUOUSLY
- THERMOSTAT SHALL CYCLE GAS HEATER TO ACHIEVE ROOM TEMPERATURE SETPOINT.

DAY CYCLE - DEHUMIDIFICATION:

- SUPPLY AIR FANS SHALL RUN CONTINUOUSLY
- RESTROOM EXHAUST FAN SHALL BE ENERGIZED.
- HUMIDISTAT SHALL CYCLE COOLING COIL STAGES TO MAINTAIN SET POINT HUMIDITY.

MORNING WARM-UP CYCLE:

- SUPPLY AIR FAN SHALL RUN CONTINUOUSLY
- THERMOSTAT SHALL CYCLE RTU TO REACH ROOM TEMPERATURE SET POINT.
- WHEN SET TEMPERATURE IS REACHED, COOLING OR HEATING CYCLE SHALL COMMENCE.

NIGHT SETBACK:

- ALL KITCHEN HOODS AND EXHAUST FANS SHALL BE DE-ENERGIZED
- THERMOSTAT SHALL CYCLE EITHER COOLING OR HEATING AND SUPPLY AIR FAN TO MAINTAIN ROOM SET POINT TEMPERATURE.

SMOKE DETECTOR:

- WHEN SMOKE DETECTOR IS ACTIVATED, SUPPLY AIR FAN SHALL SHUTDOWN.
- FIRE ALARM SHALL BE SIGNALLED.
- SUPPLY AIR FAN SHALL BE MANUALLY RESET.

**AIR BALANCE**

EQUIPMENT	EXHAUST (CFM)	OUTSIDE AIR (CFM)	MAKE-UP (CFM)
TEF-1	200	----	----
KITCHEN HOOD	10,671	----	----
EF-DISH	800	----	----
RTU-1	----	1000	----
RTU-2	----	320	----
DOAS-1	----	5,170	----
DOAS-2	----	5,530	----
<b>TOTAL</b>	<b>11671</b>	<b>12020</b>	<b>----</b>
<b>NET PRESSURE = (+) 349 CFM</b>			

**LEGEND**

	12"X12" SUPPLY AIR CEILING DIFFUSER
	24"X24" SUPPLY AIR CEILING DIFFUSER
	24"X24" RETURN AIR GRILLE
	24"X24" EXHAUST AIR GRILLE
	SUPPLY AIR SIDE-WALL OR DUCT MOUNTED REGISTER
	MANUAL VOLUME DAMPER
	THERMOSTAT
	TEMPERATURE SENSOR

**GENERAL NOTES**

- THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE TENANT MECHANICAL SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, ACCESSORIES, OPTIONS AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL ITEMS AND LABOR REQUIRED FOR A COMPLETE TENANT MECHANICAL SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS AND THE BASE BUILDING CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ADDITIONS TO THE CONTRACT.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT PARTITION LAYOUTS, REFLECTED CEILING PLANS, DIMENSIONS, ETC.
- WHEN ANY DUCTWORK OR AIR DISTRIBUTION DEVICE IS REMOVED, THE ASSOCIATED TRUNK DUCT SHALL BE SEALED AIRTIGHT WITH A SHEET METAL PATCH OR CAP.
- VISIT SITE AND CAREFULLY EXAMINE EXISTING CONDITIONS PRIOR TO SUBMITTING BID. THE EXISTING CONDITIONS SHOWN ARE BASED ON DOCUMENTS PROVIDED BY OTHERS AND HAVE NOT BEEN VERIFIED BY THE ENGINEER. IF EXISTING CONDITIONS DIFFER FROM DRAWINGS IN SUCH A MANNER THAT WILL AFFECT PRICING, (I.E., DUCTWORK, VAV OR PIU ARE NOT IN THE SHOWN LOCATION) CONTRACTOR WILL NOTIFY OWNER SO THAT A RESOLUTION CAN BE MADE PRIOR TO SUBMITTING BIDS. NO ALLOWANCE WILL BE MADE FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS.
- REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES IF FIELD CONDITIONS VARY, NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- ALL ROUND AND FLEXIBLE DUCTWORK EXTENDING TO DIFFUSERS SHALL BE SIZED FULL SIZE OF DISTRIBUTION DEVICE INLET, AND TAPS TO THE EXISTING LOW-PRESSURE DUCTWORK SHALL BE MADE WITH SPIN-IN FITTINGS HAVING INTEGRAL SCOPES AND VOLUME DAMPERS. ALL NEW RECTANGULAR DUCTWORK TAPS SHALL BE MADE WITH SPLITTERS OR EXTRACTORS. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SMACNA DUCT STANDARDS. (NEW LOW PRESSURE SPIN-IN FITTINGS AND TAPS SHALL NOT BE MADE WITHIN 5'-0" OF OUTLET OF HEAT PUMP. NEW LOW PRESSURE SPIN-IN FITTINGS SHALL BE MADE NO CLOSER THAN 2'-6" ON CENTERS.)
- ALL KITCHEN CEILING SUPPLY DIFFUSERS SHALL BE AS NOTED IN THE MECHANICAL SPECIFICATION SECTION 23 37 13. FACE AREA SHALL BE APPROXIMATELY 24" x 24" EXCEPT AS OTHERWISE NOTED. FINISH SHALL BE BAKED ENAMEL IN A COLOR TO MATCH THE CEILING GRID. FRAME SHALL BE SUITABLE FOR THE CEILING TYPE IN WHICH IT IS INSTALLED. NECK SIZE SHALL BE SHOWN OTHERWISE ON DRAWINGS.
- RETURN AIR GRILLES (R.A.G.) SHALL BE AS NOTED IN MECHANICAL SPECIFICATION SECTION 23 37 13. FACE AREA SHALL BE APPROXIMATELY 24" x 24". FINISH SHALL BE BAKED ENAMEL IN A COLOR TO MATCH CEILING GRID. FRAME SHALL BE SUITABLE FOR THE CEILING TYPE IN WHICH IT IS INSTALLED.
- FLEXIBLE DUCTS SHALL BE INSTALLED FREE OF SAGS AND KINKS; SUPPORT AT NOT MORE THAN 48" O.C.
- TEST AND BALANCE ALL DIFFUSERS, BOXES, FANS, ETC. TO THE AIRFLOW'S AND CONDITIONS INDICATED. ALL EXISTING DIFFUSERS, BOXES, FANS, ETC. WHICH ARE NOT NOTED OTHERWISE SHALL BE BALANCED TO THEIR PRIOR DESIGN AIRFLOWS; REFERENCE THE EXISTING RECORD DRAWING AVAILABLE FROM THE OWNER. TESTING AND BALANCING OF HVAC SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF AABC AND SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN AABC CERTIFIED TEST AND BALANCE ENGINEER. SUBMIT 4 COPIES OF THE REPORT TO THE OWNER. NEBB AGENCIES ARE NOT ACCEPTABLE AND ARE CAUSE FOR REJECTION.
- ALL CONTROL WIRING AND TUBING INSTALLED ABOVE THE CEILING SHALL BE LOCATED AS HIGH ABOVE THE CEILING AS POSSIBLE AND SHALL NOT FOLLOW THE DESIGNATED GENERAL ROUTING OF THE DUCTWORK. DO NOT HANG WIRING OR TUBING FROM DUCTWORK; RATHER, SUSPEND FROM THE STRUCTURE.
- TEMPERATURE SENSORS SHALL BE LOCATED IN EACH ZONE AS SHOWN. THE EXACT LOCATION ON THE WALL INDICATED SHALL BE AS DIRECTED BY THE ARCHITECT. NEW THERMOSTATS SHALL BE SELECTED TO MATCH THE EXISTING BASE BUILDING THERMOSTATS AND SHALL BE COMPATIBLE WITH THE EQUIPMENT SERVED. LOCATE THERMOSTATS PER ACCESSIBILITY REQUIREMENTS. VERIFY HEIGHT AND LOCATION WITH INSPECTOR. THERMOSTATS TO BE LOCATED IN OFFICE.
- ADJUST ALL DIFFUSERS IN CORRIDORS OR WITHIN 3 FEET OF A WALL TO PROVIDE 2-WAY OR 3-WAY BLOW AWAY FROM OR PARALLEL TO WALLS. ALL LAY-IN DIFFUSERS SHALL HAVE 4-WAY BLOW UNLESS NOTED OTHERWISE.
- PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREA SHALL BE PAINTED FLAT BLACK.
- SINGLE WALL SHEET METAL SUPPLY DUCTWORK IN CONCEALED SPACES SHALL BE INSULATED WITH 2" THICK FIBERGLASS DUCT INSULATION WITH FOIL VAPOR BARRIER U/L LISTED. ALL EXPOSED SPIRAL DUCTWORK SHALL BE DOUBLE-WALL INSULATED DUCT. EXHAUST DUCTWORK SHALL NOT BE INSULATED UNLESS OTHERWISE NOTED.
- LOW PRESSURE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARD.
- 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.
- CONTRACTOR SHALL SUPPLY AN EXTRA SET OF OEM FILTERS FOR ALL EXHAUST HOODS.
- REFER TO SHEET G3.01 FOR HVAC RESPONSIBILITIES.
- CONTRACTOR TO FURNISH & INSTALL COMPLETE MECHANICAL SYSTEM WITH ALL REQUIRED CONNECTIONS TO FIRE ALARM.

**SEQUENCE OF OPERATION: DOAS (ELEC/GAS)**

GAS HEATING/ELECTRIC COOLING DOAS UNIT SEQUENCE OF OPERATION:

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SMOKE DETECTOR:

- WHEN SMOKE DETECTOR IS ACTIVATED, SUPPLY AIR FAN SHALL SHUTDOWN.
- FIRE ALARM SHALL BE SIGNALLED.
- SUPPLY AIR FAN SHALL BE MANUALLY RESET.

BUILDING PRESSURE:

- SUPPLY AIR FAN SHALL RUN CONTINUOUSLY.
- A DIFFERENTIAL PRESSURE SENSOR SHALL BE INSTALLED TO MEASURE THE DIFFERENCE BETWEEN BUILDING PRESSURE AND AMBIENT PRESSURE.
- CONTROLS INTERNAL TO THE DOAS UNIT SHALL MODULATE RA/OA DAMPER AS WELL AS THE SPEED OF THE SUPPLY FAN TO MAINTAIN A SLIGHTLY POSITIVE PRESSURIZED BUILDING.

project address | frame

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job status

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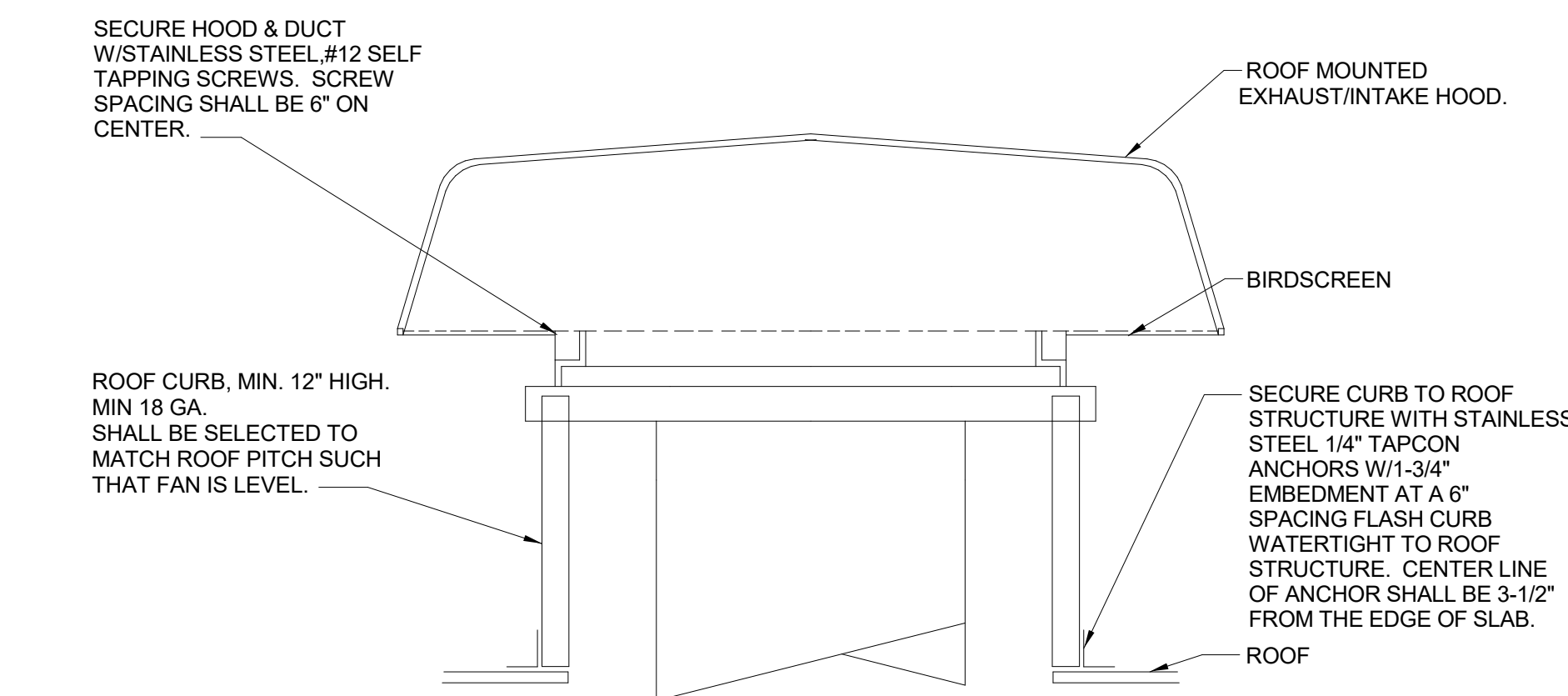
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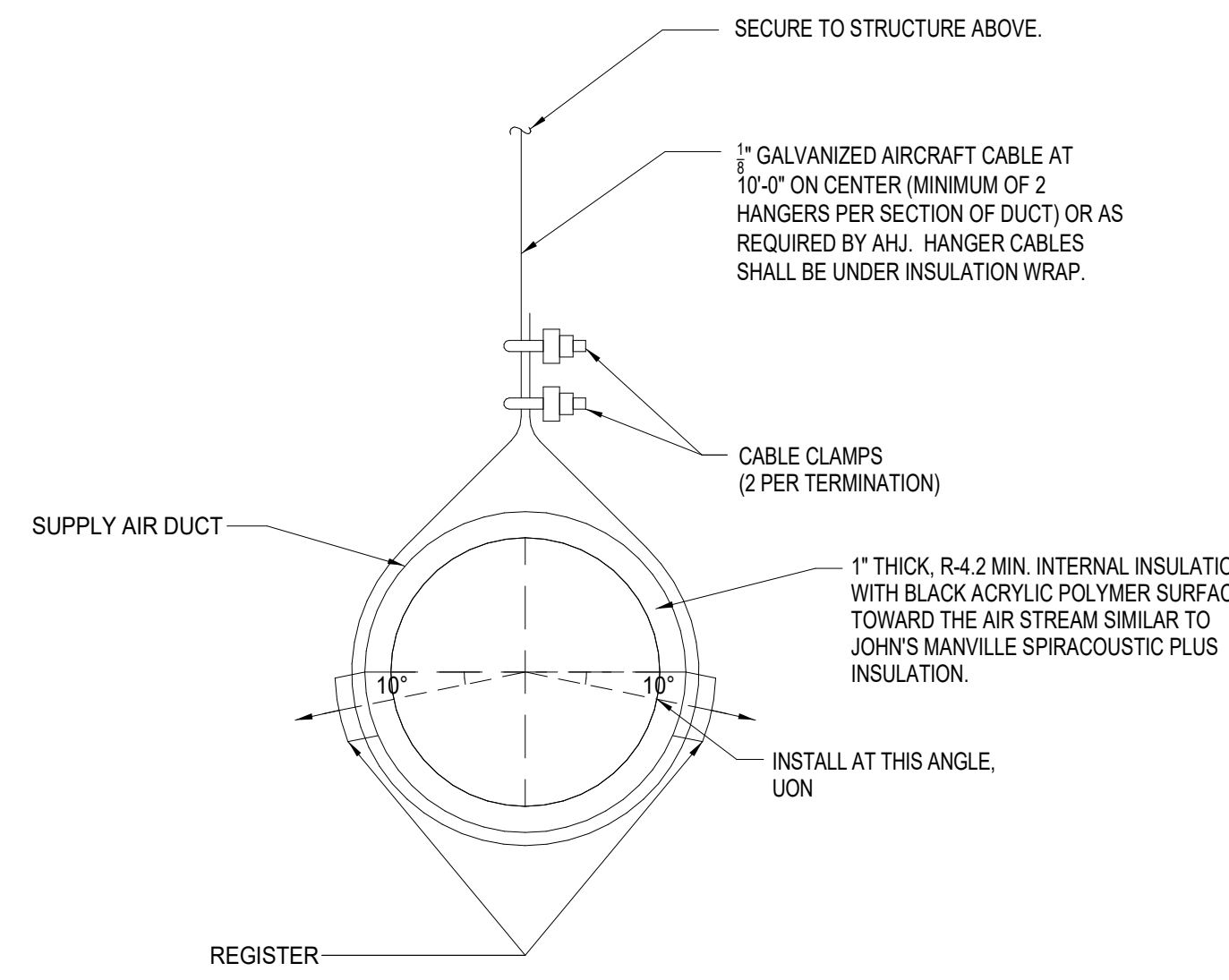
No.	Description	Date
2	Revision #2	10/17/2022
3	Revision #3	01/09/2023
4	Revision #4	01/25/2023



01/25/2023



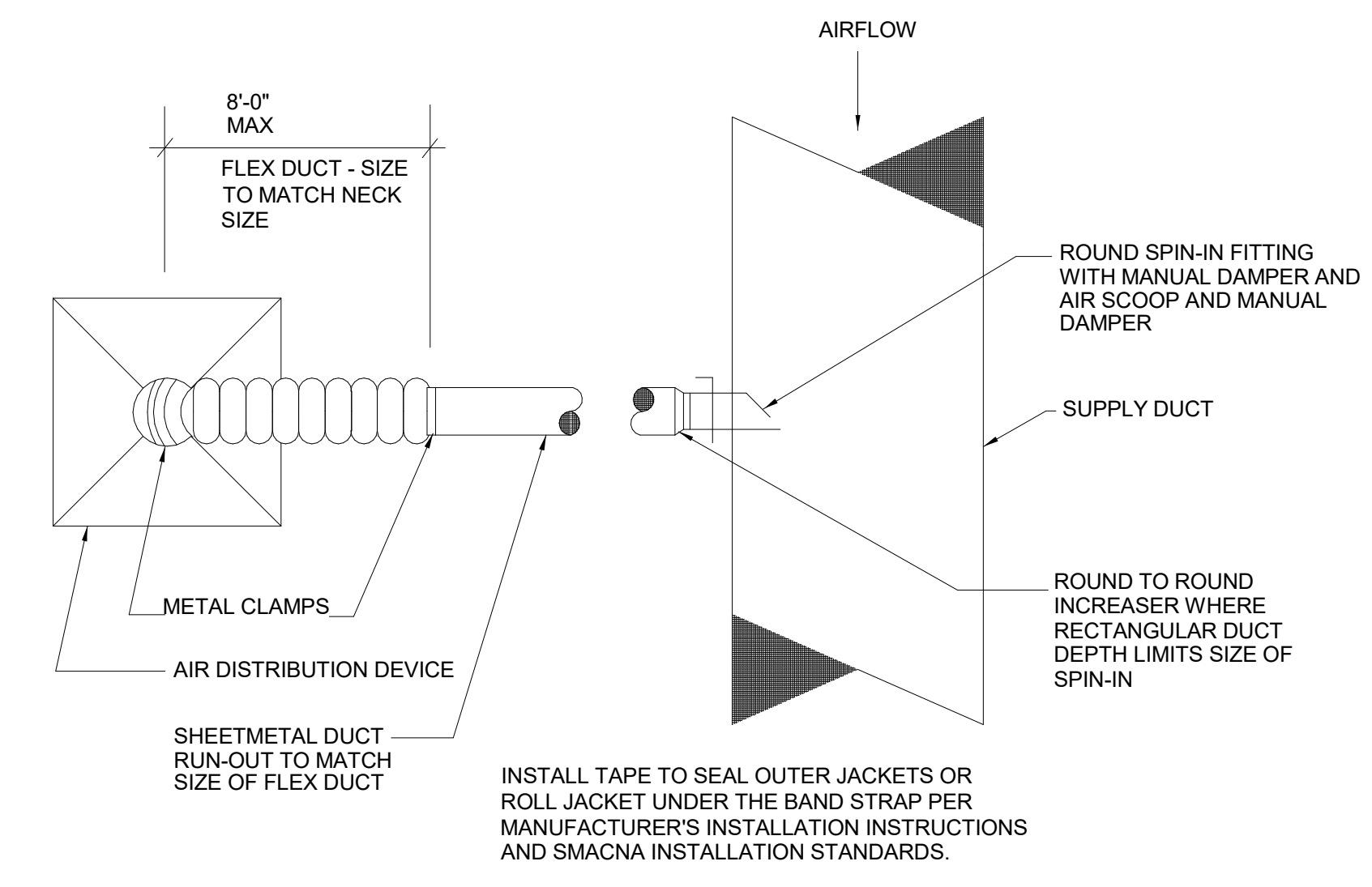
6 ROOF MOUNTED EXHAUST HOOD DETAIL  
MO.02 / NO SCALE



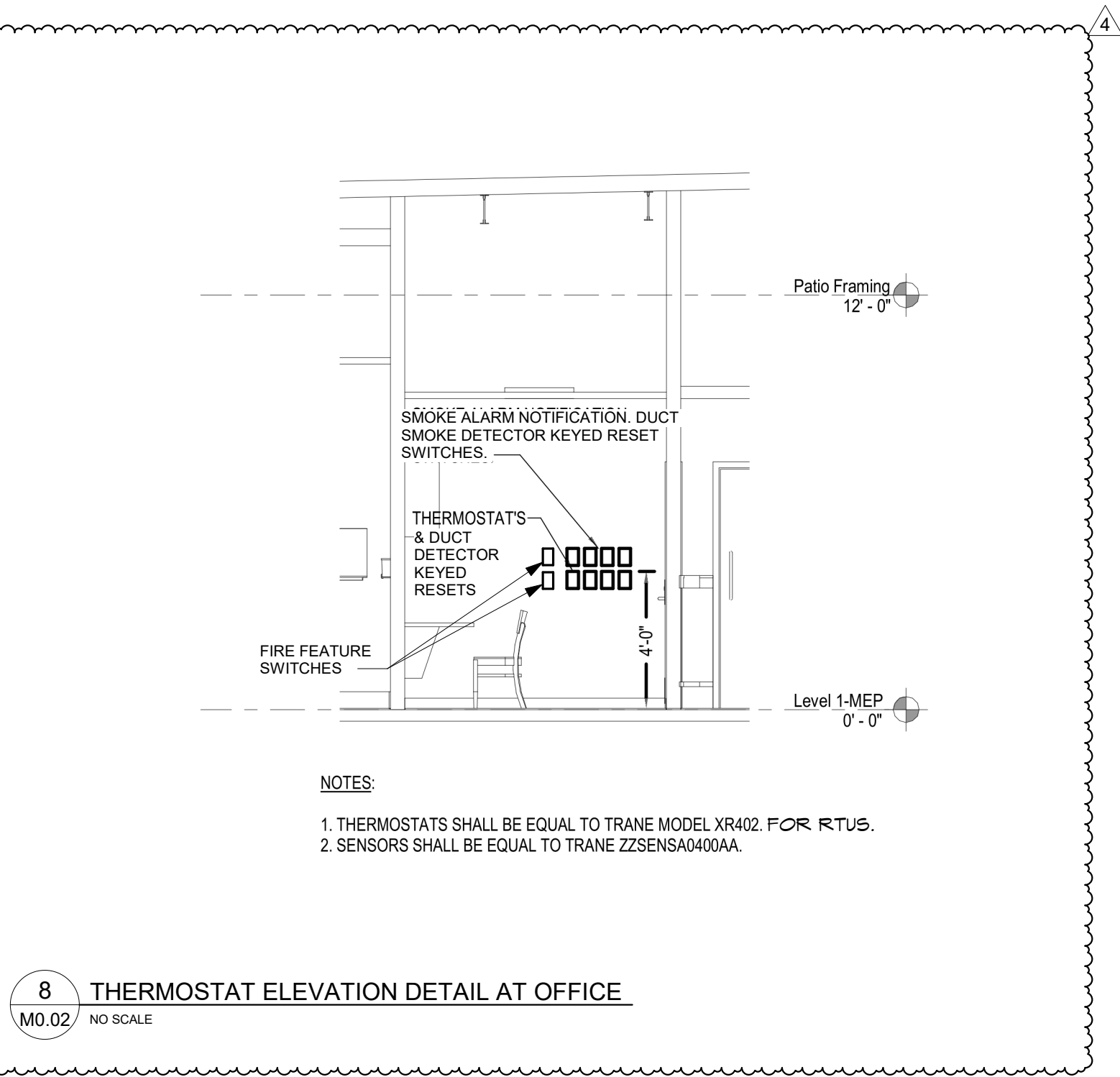
3 SPIRAL DUCT DETAIL  
MO.02 / NO SCALE

MINIMUM HANGER SIZES FOR ROUND DUCT

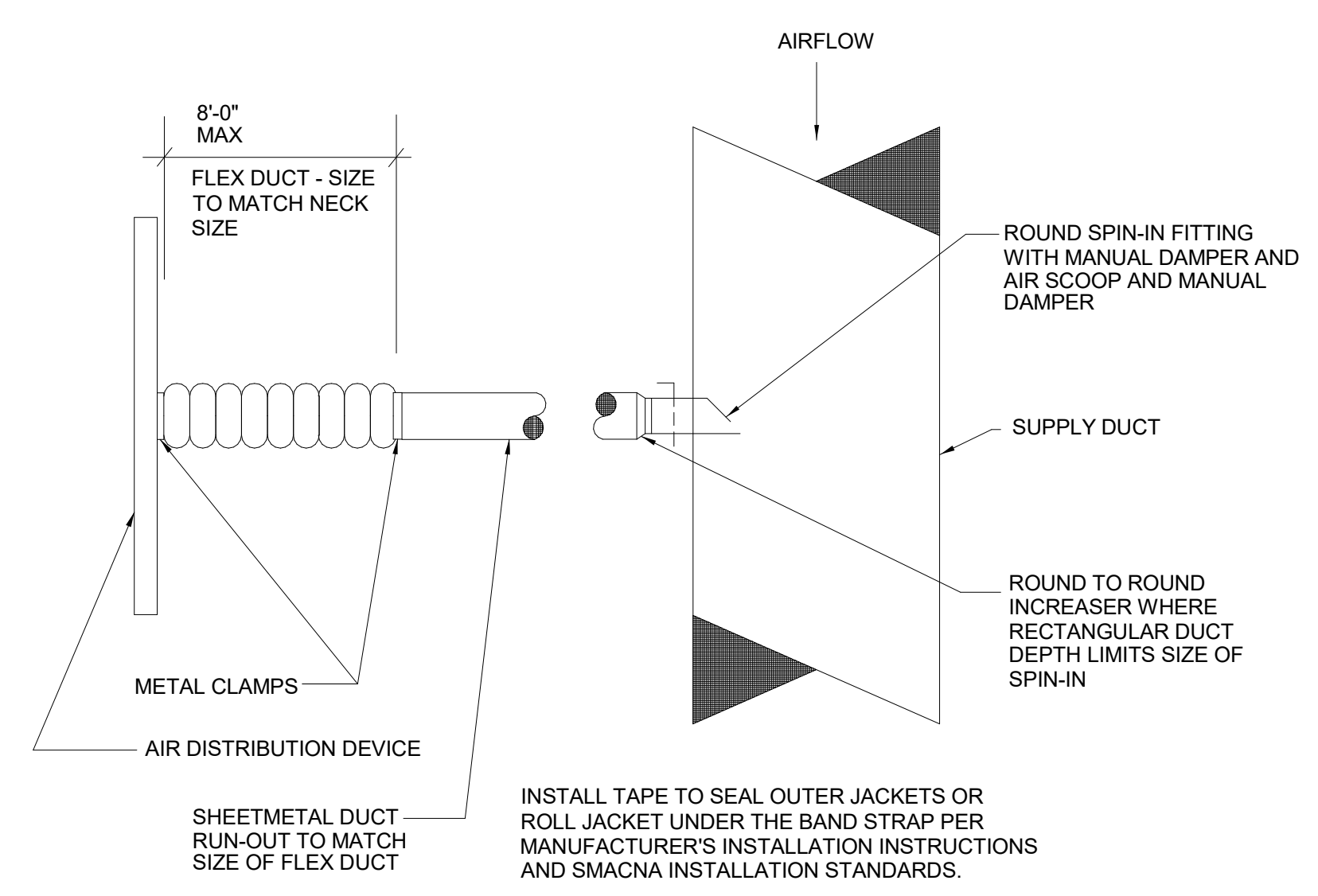
Dia.	Maximum Spacing	Wire Dia.	Rod	Strap
10" dia 250 mm dia	12" 3.7 m	One 12 ga. One 2.75 mm	1/4" 6.4 mm	1" x 22 ga. 25.4 x 0.85 mm
11-18"	12"	Two 12 ga. or One 8 ga.	1/4"	1" x 22 ga.
460 mm	3.7 m	One 4.27 mm	6.4 mm	25.4 x 0.85 mm
19-24" 610 mm	3.7 m	Two 10 ga. Two 3.51 mm	1/4" 6.4 mm	1" x 22 ga. 25.4 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. 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. 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. Two 9.5 mm	Two 1" x 16 ga. (2) 25.4 x 1.61 mm



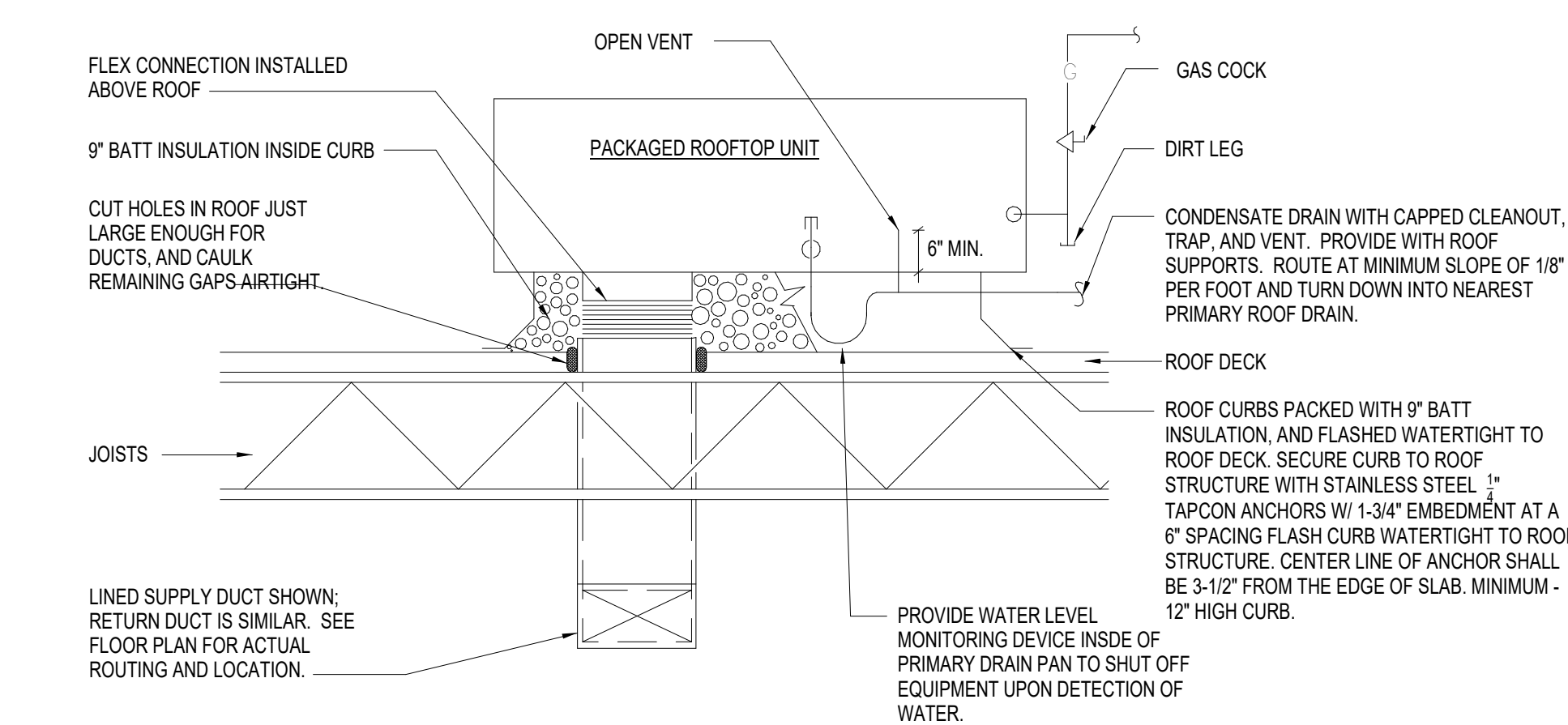
1 DIFFUSER CONNECTION DETAIL  
MO.02 / NO SCALE



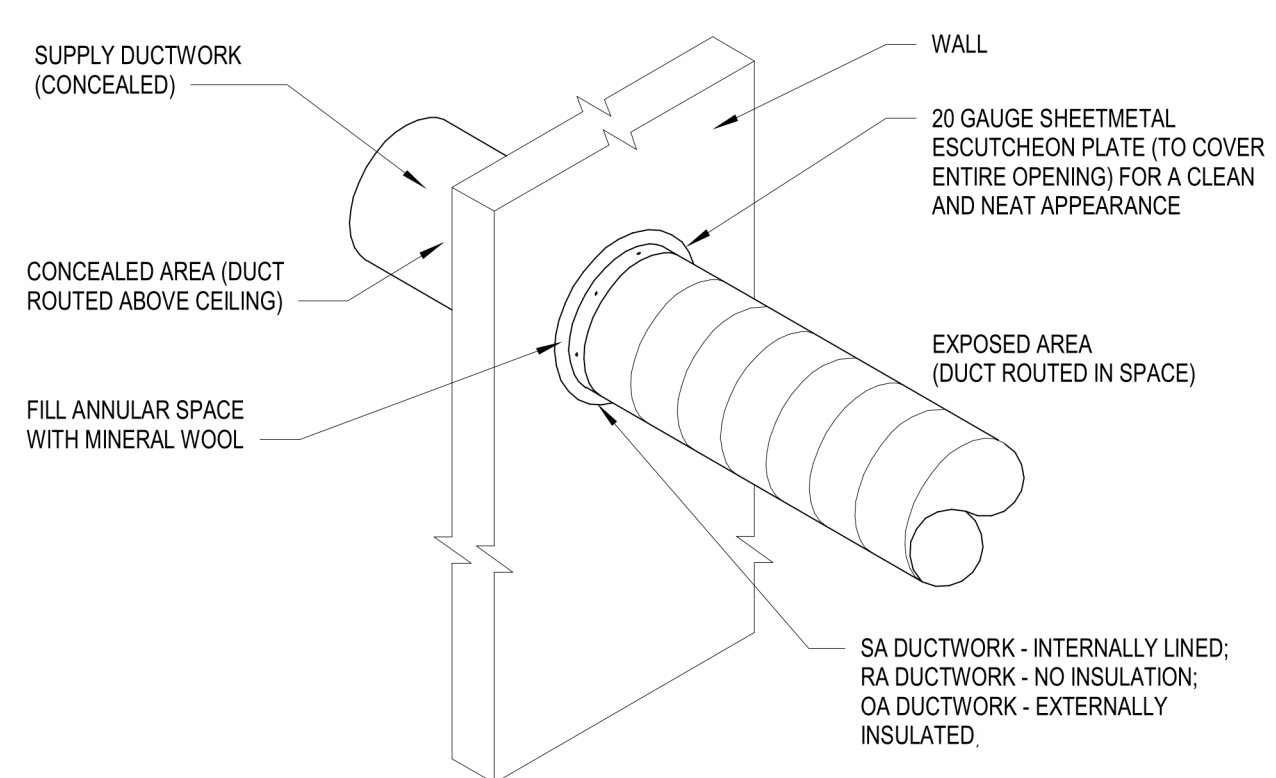
8 THERMOSTAT ELEVATION DETAIL AT OFFICE  
MO.02 / NO SCALE



5 SLOT DIFFUSER CONNECTION DETAIL  
MO.02 / NO SCALE

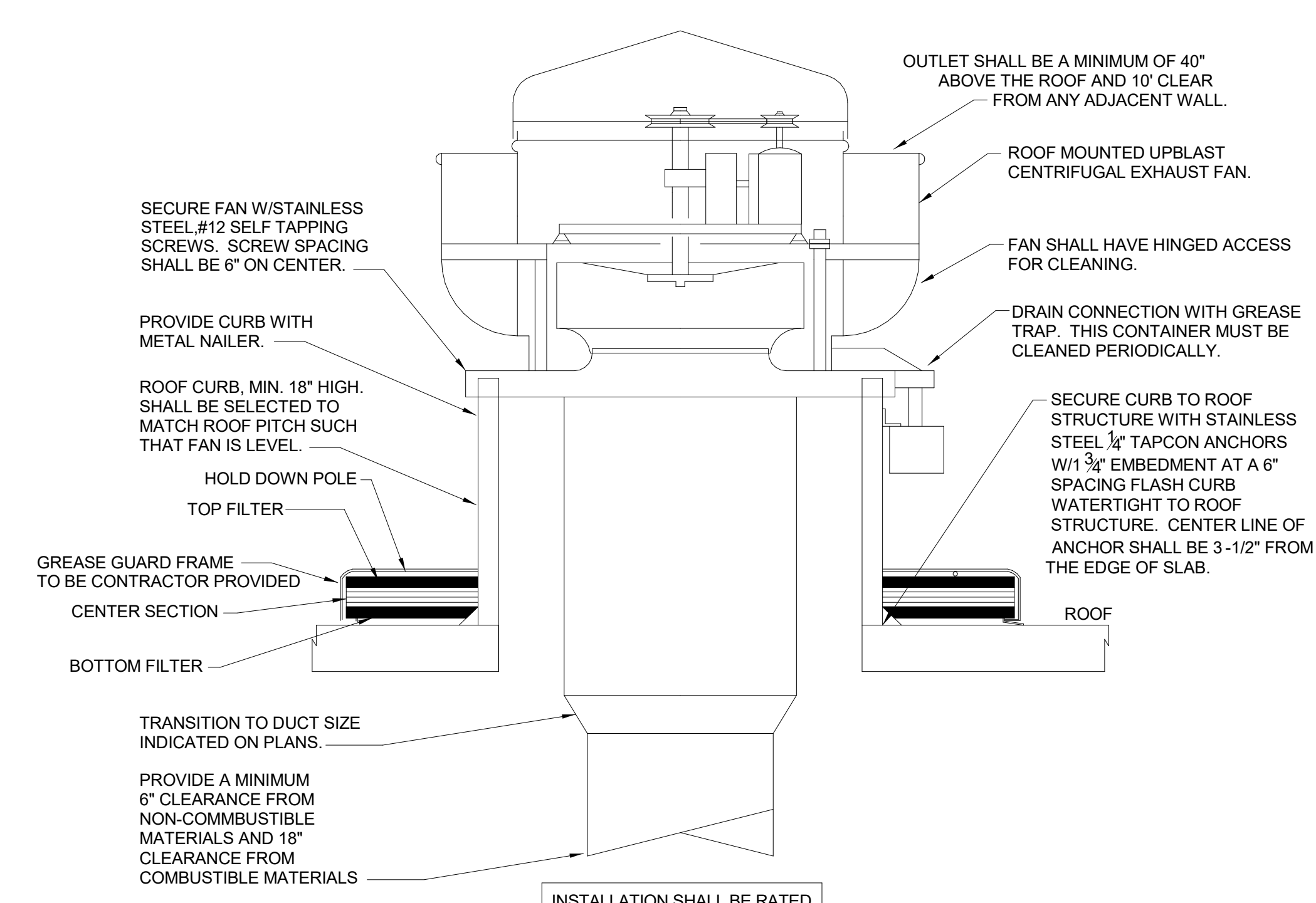


2 ROOFTOP UNIT DETAIL  
MO.02 / NO SCALE



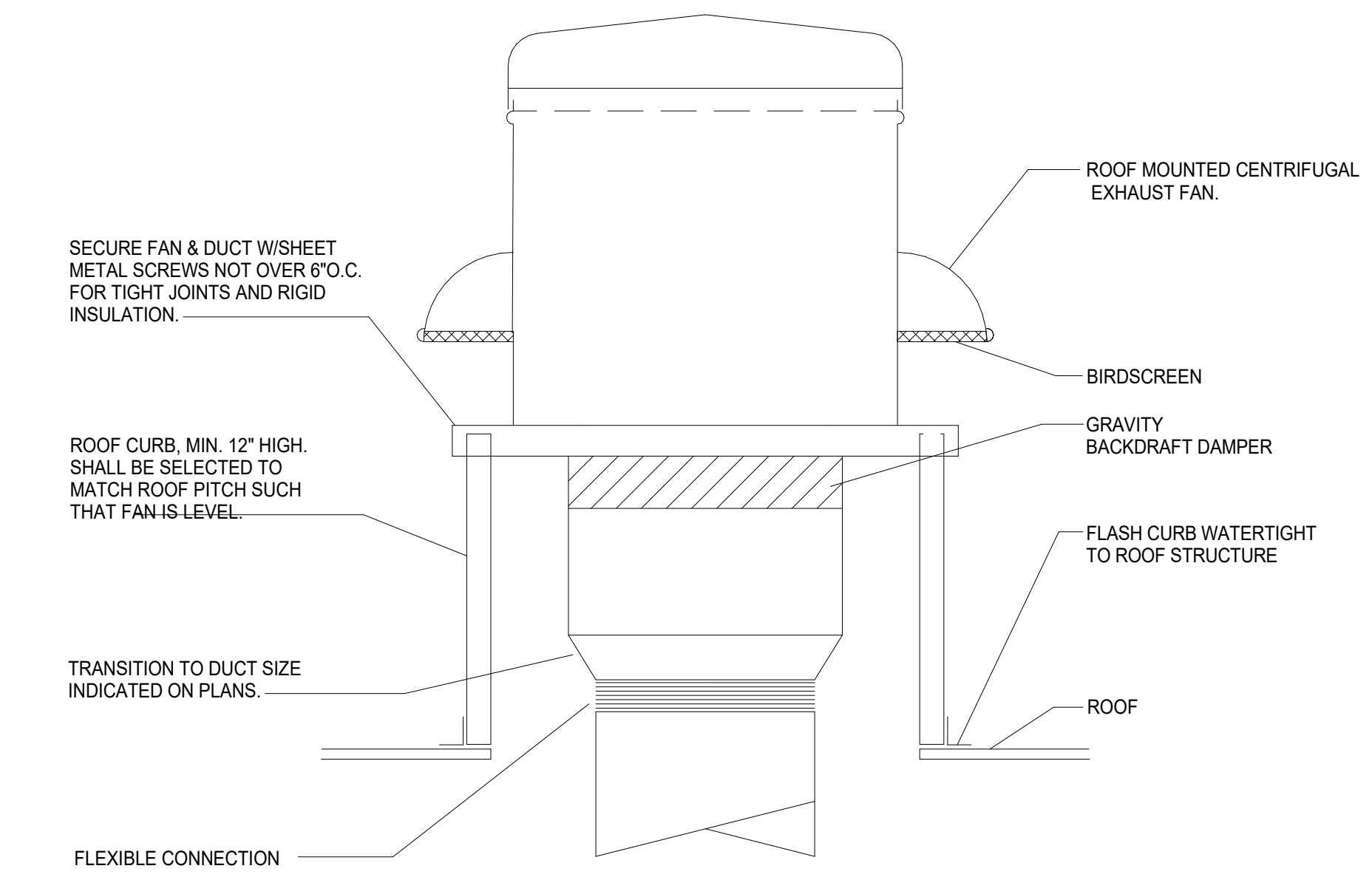
NOTES:  
1. WHEN SPECIFIED TO BE PAINTED, ALL EXPOSED SHEETMETAL SURFACES INCLUDING HANGER STRAPS SHALL HAVE A "PAINT GRIP" FINISH FOR FIELD PAINTING. AS AN OPTION, MILL PHOSPHATIZED STEEL DUCTWORK MAY BE USED.  
2. PAINT COLOR SHALL BE SELECTED BY ARCHITECT.  
3. PAINTING BY OTHERS, COORDINATE WITH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

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



NOTES:  
1) THE "GREASE GUARD" SYSTEM SHALL BE INSTALLED FOR ALL KITCHEN EXHAUST SYSTEMS.  
2) GREASE CONTAINMENT SYSTEM IS TO BE SIZED, ENGINEERED, INSTALLED AND MANUFACTURED SPECIFICALLY BY GREASE GUARD INC. (800-284-8273). PAD SHALL COVER A MINIMUM OF 15\"/>

7 KITCHEN EXHAUST FAN DETAIL  
MO.02 / NO SCALE



4 TOILET EXHAUST FAN DETAIL  
MO.02 / NO SCALE

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No.	Description	Date
3	Revision #3	01/09/2023
4	Revision #4	01/25/2023



01/25/2023

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 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 HEADS.

KEY NOTES:  
(APPLY THIS SHEET ONLY)

- CONTRACTOR TO PROVIDE FULL SIZE LINED RETURN AIR DUCT FOR ROOF TOP UNIT. TERMINATE RETURN DUCT THROUGH SOFFIT 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 S8M.02.
- MOUNT TEMPERATURE AND HUMIDITY SENSORS AT 6" A.F.F. FOR RTU-1, RTU-2, DOAS-1, AND DOAS-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.

LEGEND

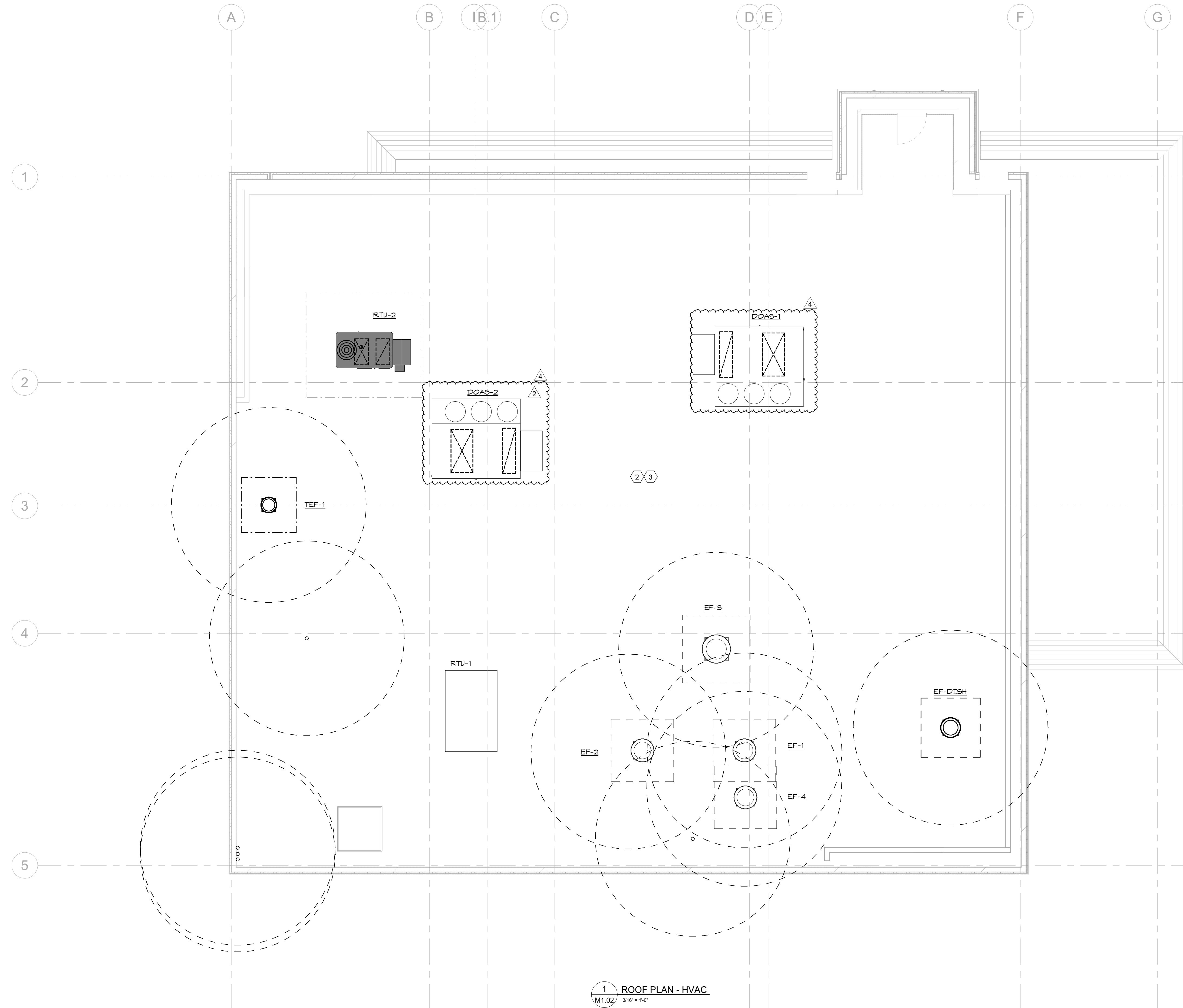
	12"x12" SUPPLY AIR CEILING DIFFUSER
	24"x24" SUPPLY AIR CEILING DIFFUSER
	24"x24" RETURN AIR GRILLE
	24"x24" EXHAUST AIR GRILLE
	ROUND DIFFUSER
	SUPPLY AIR SIDE-WALL OR DUCT MOUNTED REGISTER
	MD MANUAL VOLUME DAMPER
	THERMOSTAT
	TEMPERATURE SENSOR

1 FLOOR PLAN - HVAC  
M1.01 3/16" = 1'-0"

No.	Description	Date
2	Revision #2	10/17/2022
3	Revision #3	01/09/2023
4	Revision #4	01/25/2023



01/25/2023



GENERAL NOTES

1. INTAKES AND EXHAUST SHALL BE A MINIMUM OF 10 FEET APART.
2. DUCT TYPE I HOOD FANS TERMINATIONS SHALL BE MIN 40" ABOVE FINISHED ROOF. TERMINATION SHALL CONFORM TO 2015 IMC SECTION 506.3.13
3. 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.
4. REFER TO SHEET P1.04 FOR CONDENSATE LINE ROUTING.

LEGEND NOTES

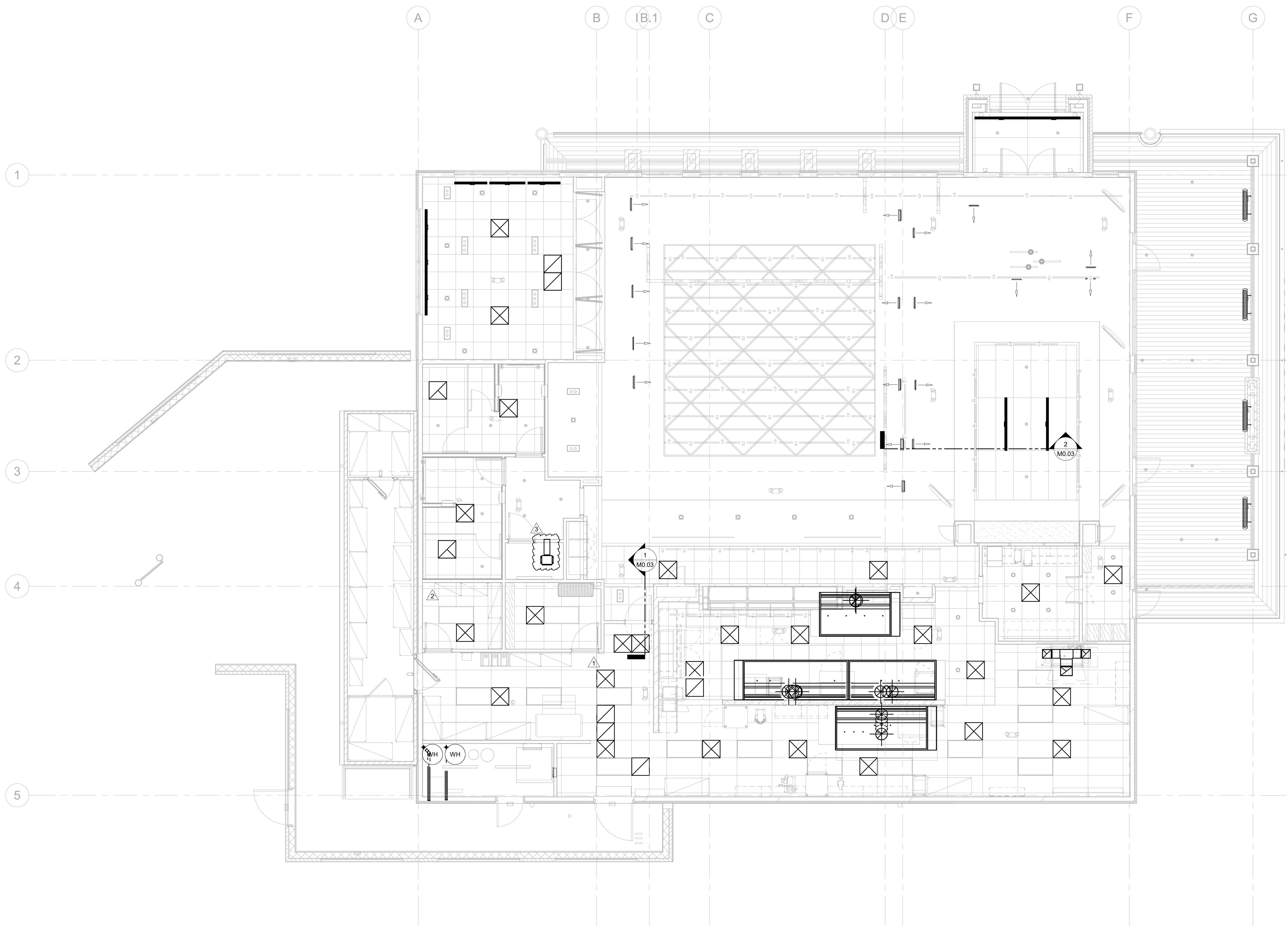
(APPLY TO THIS SHEET ONLY)

- 1 NOT USED.
- 2 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.
- 3 REFER TO STRUCTURAL DRAWINGS FOR TYPICAL DETAILS FOR STEEL ANGLES AT CURB INSTALLATIONS, DUCTWORK PENETRATIONS AND PIPING AND DUCT SUPPORTS INSTALLATION TO ROOF DECKING.

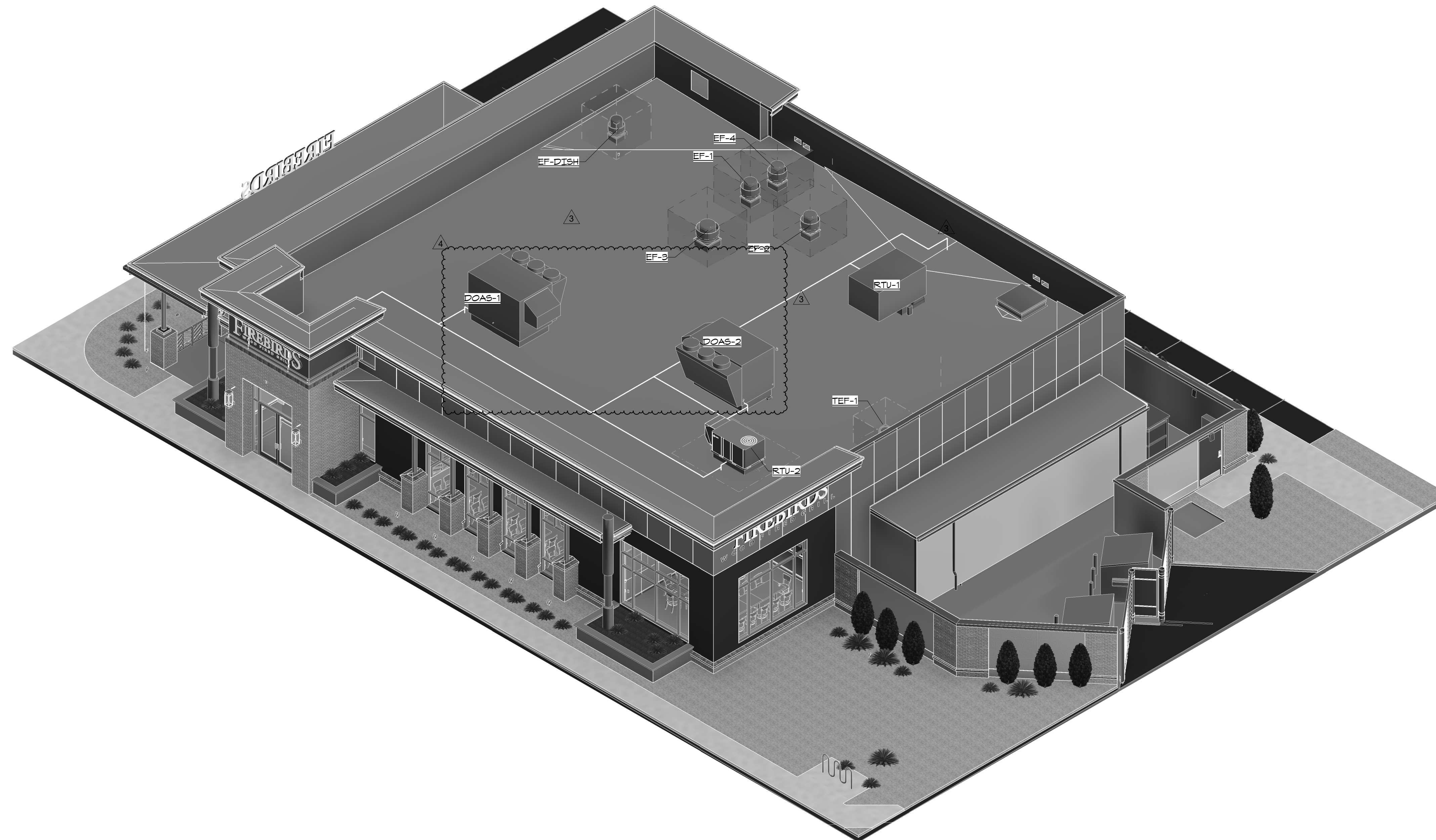
No.	Description	Date
1	MISC. COORDINATION	08/16/2022
2	Revision #2	10/17/2022
3	Revision #3	01/09/2023



01/09/2023



1 CEILING PLAN - HVAC  
M2.01 3/16" = 1'-0"



1 MECHANICAL ISOMETRIC  
M3.01

FIREBIRDS  
PLANO, TX

HWY 121 & PRESTON RD  
PLANO, TX 75024  
COLLIN COUNTY

project address | name

**FIREBIRDS**  
WOOD FIRED GRILL

client

**starr**  
design  
branded environments

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

**BW**  
&A  
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BWA JOB # 2022-0339

designers

CD SET

05/19/2022

job status

No.	Description	Date
3	Revision #3	01/09/2023
4	Revision #4	01/25/2023

revisions



01/25/2023

seal

MECHANICAL  
ISOMETRIC  
**M3.01**

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sheet number | title

UL NSF  
FIREBIRDS - PLANO TX  
ITEM 33  
PROJECT 11/15/2022  
MARK  
ACCUREX CENTRAL CAROLINAS & CHARLOTTE  
MARK.BOWMAN@ACCUREX.COM  
(828)579-1123

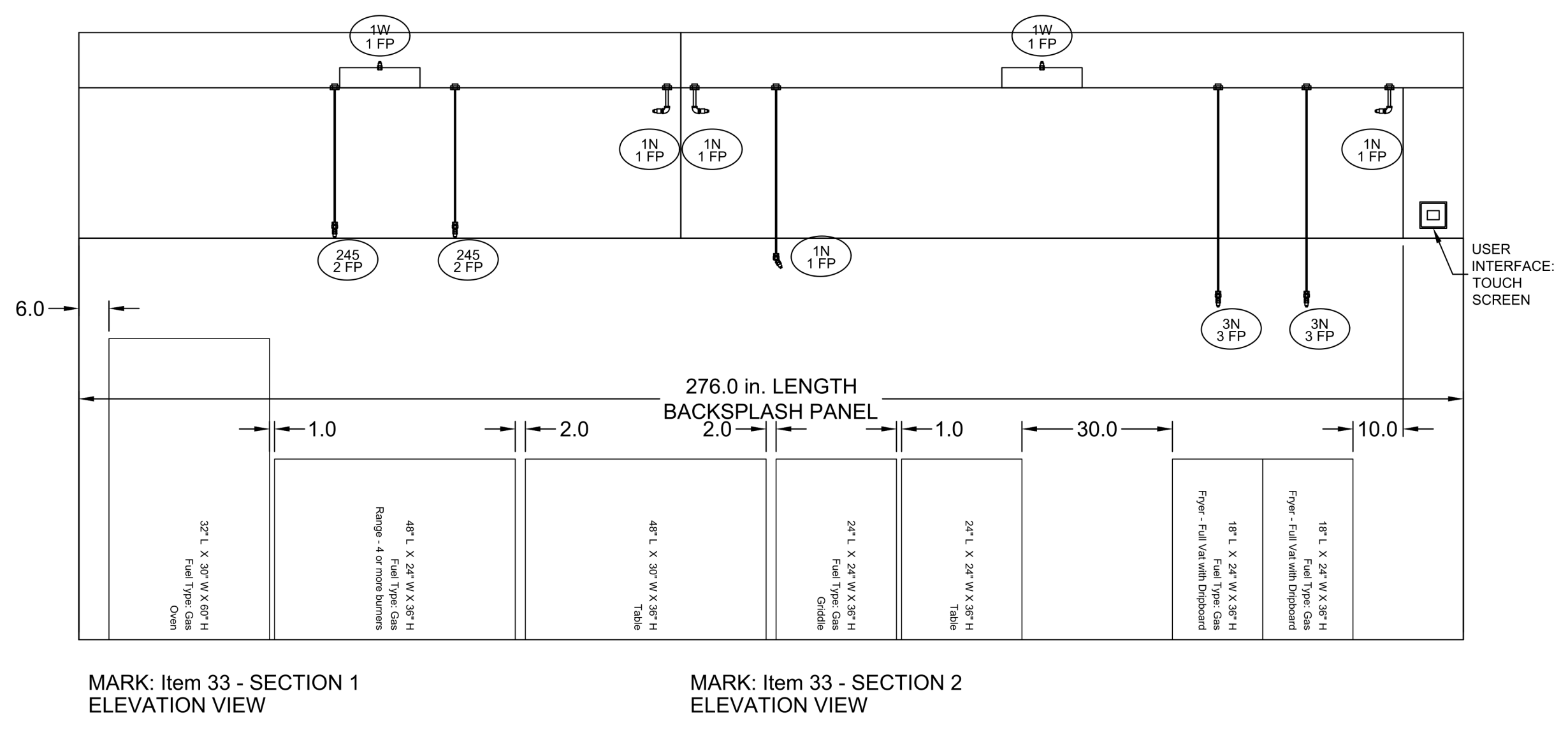
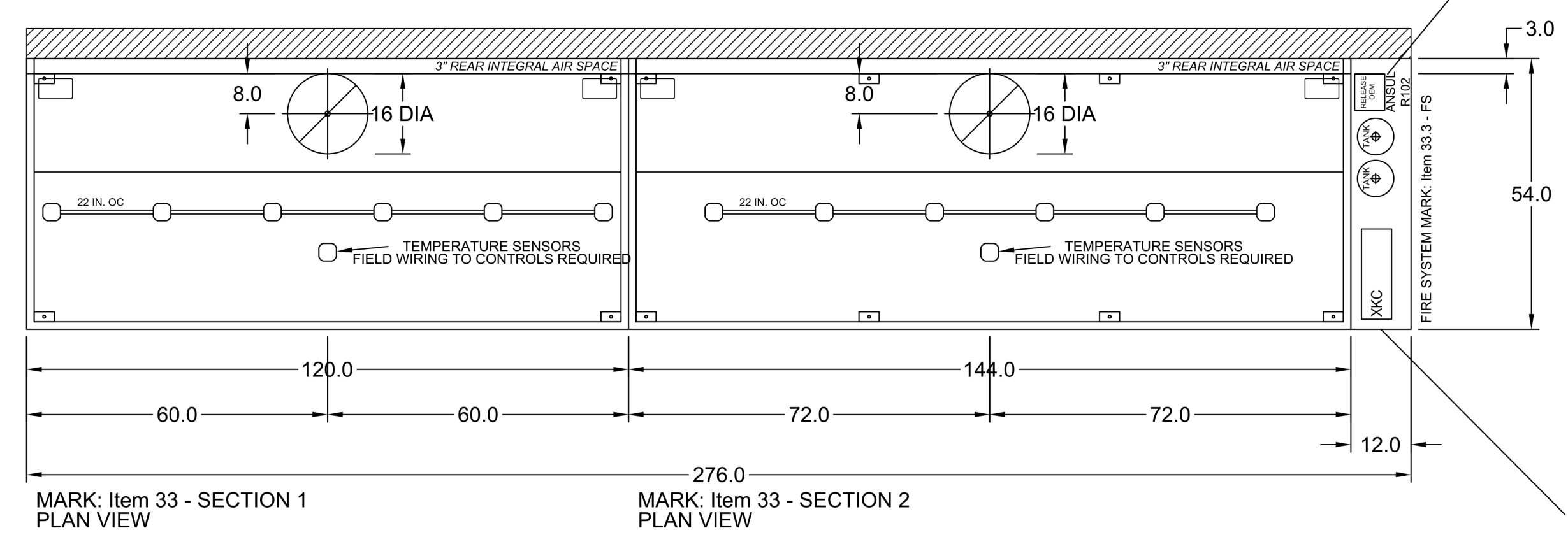
HOOD INFORMATION															
HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST				SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION
			LENGTH	WIDTH	HEIGHT			COLLAR(S)	CFM	CFM	AC	CFM			
1	ITEM 33 (Cookline L, R)	XXEW-120-S	120	54	30	430 SS WHERE EXPOSED	HEAVY	2350	16	2350	0.628			351.873	LEFT
2	ITEM 33 (Cookline L, R)	XXEW-144-S	144	54	30	430 SS WHERE EXPOSED	HEAVY	2820	16	2820	0.777			412.558	RIGHT

HOOD INFORMATION															
HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS			UTILITY CABINET(S)							
		FIXTURE TYPE	BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL	QTY	SIZE (IN.)	LOCATION	FIRE SYSTEM	CONTROLS				
1	ITEM 33 (Cookline L, R)	INCANDESCENT (GLOBE)	100W A19 (BULBS NOT INCL.)	6	48.52	X-TRACTOR STAINLESS STEEL	0	16	20						TOUCHSCREEN
2	ITEM 33 (Cookline L, R)	INCANDESCENT (GLOBE)	100W A19 (BULBS NOT INCL.)	6	47.58	X-TRACTOR STAINLESS STEEL	4	16	20	RIGHT	ANSUL R102	6	XKC		

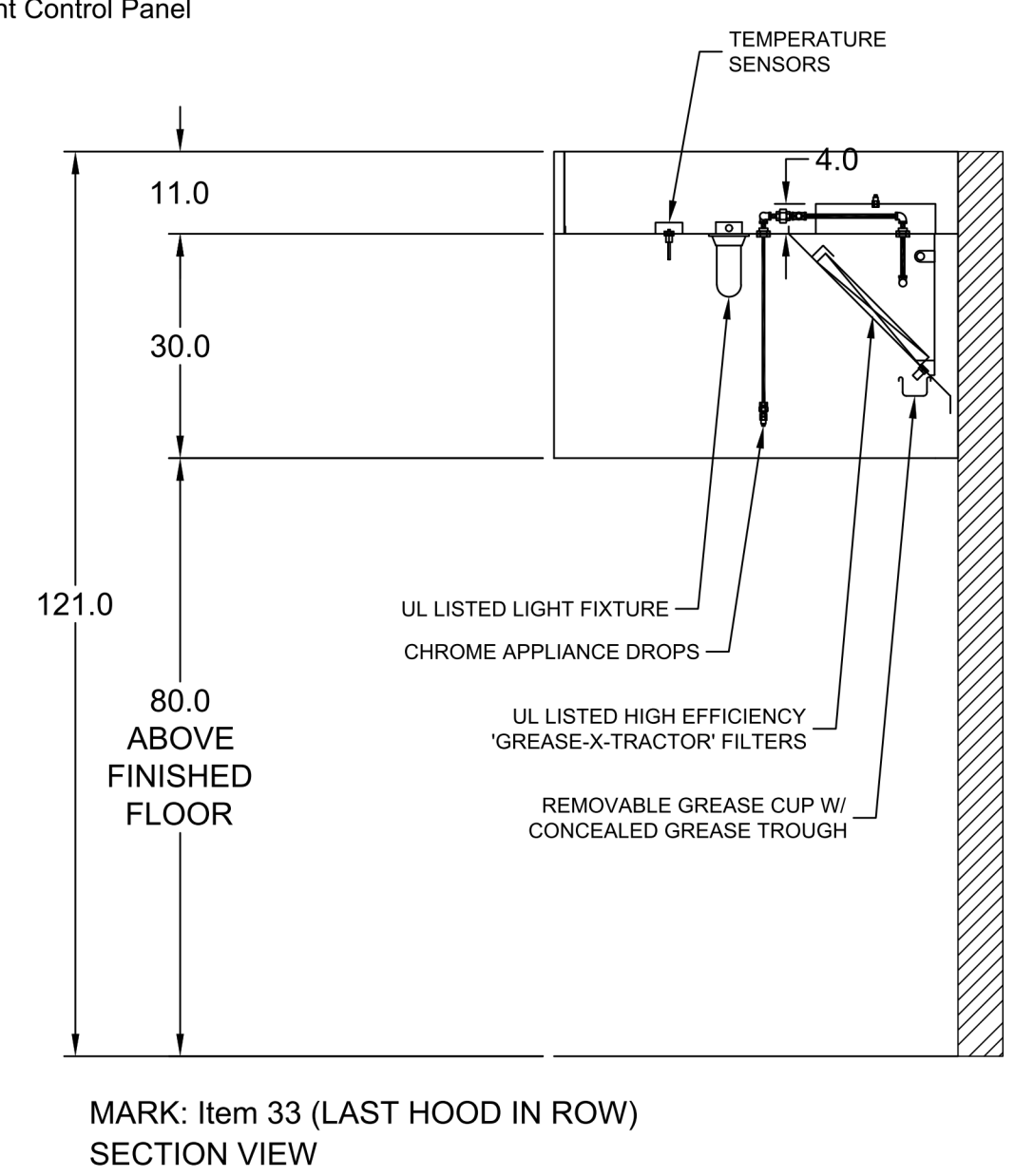
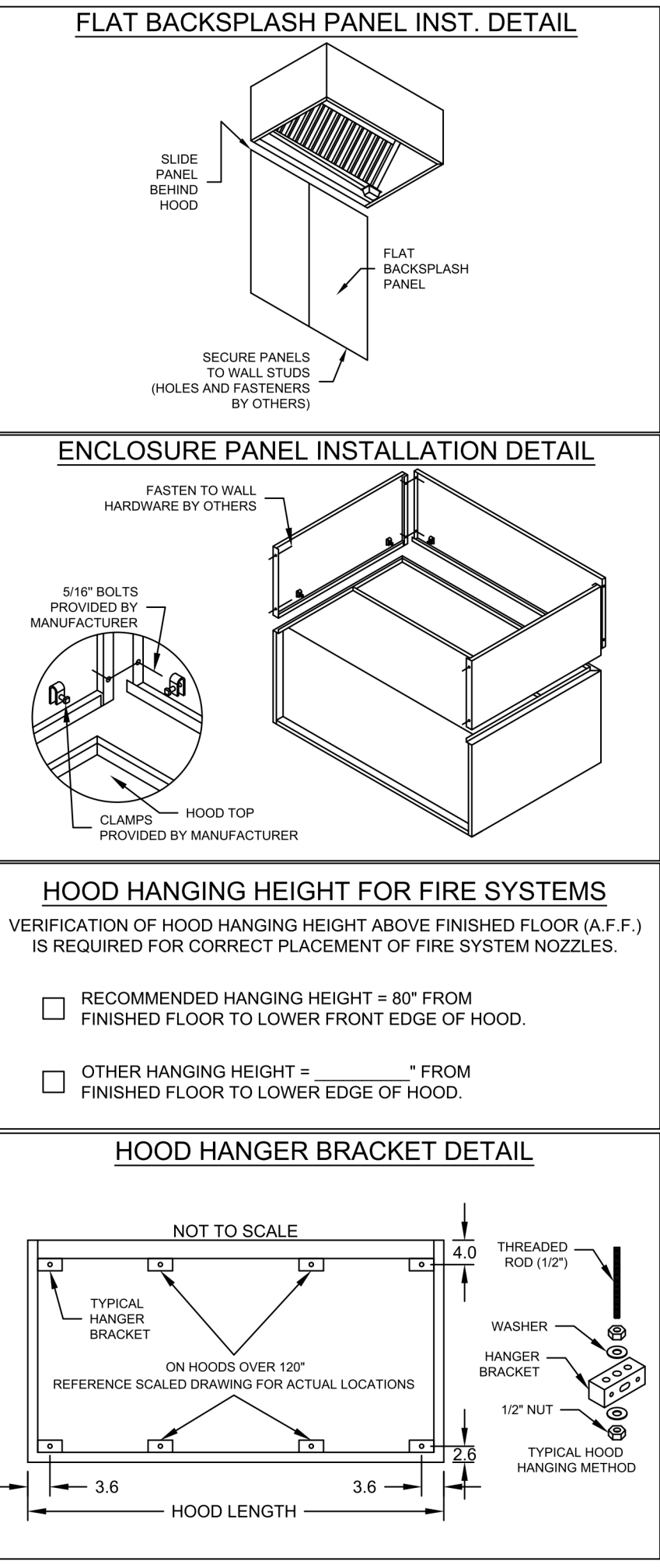
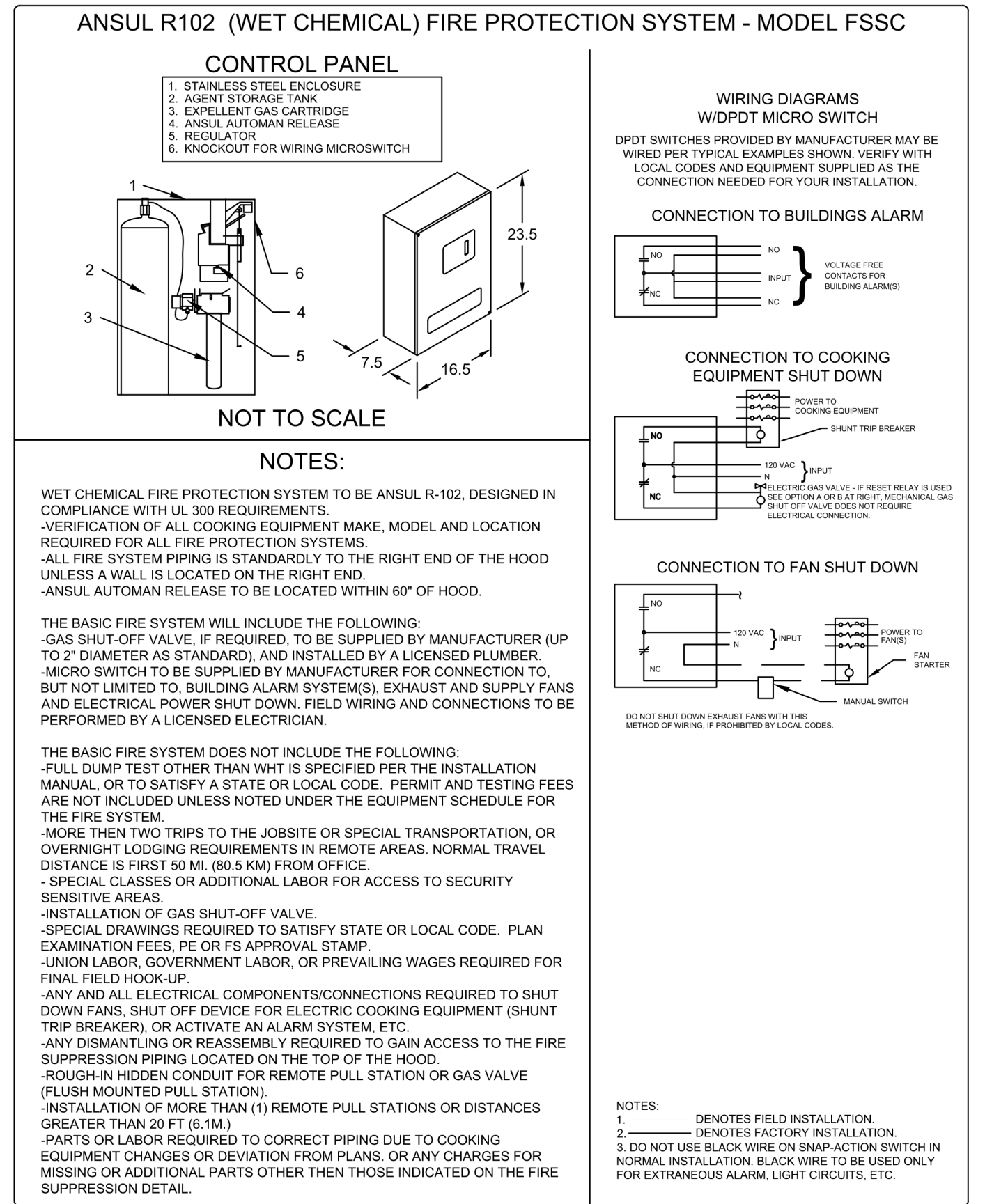
FIRE SYSTEM INFORMATION									
MARK	MODEL	LOCATION	FLOW POINTS	SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM			
ITEM 33.3 - FS	ANSUL R-102 WET CHEMICAL	CABINET - RIGHT END OF ITEM 33	16 UTILIZED 22 AVAILABLE	PCU	CONTINUOUS	FUSIBLE LINK	ITEM 33 SECTION 1 ITEM 33 SECTION 2		

**HOOD OPTIONS**  
UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625  
BACK INTEGRAL AIR SPACE - 3 IN WIDE  
11 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED  
FACTORY MOUNTED EXHAUST COLLAR(S)  
BACKSPASH 80.00 IN HIGH 276.00 IN LONG  
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY  
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

Confirm Ceiling Height



**FIRE SYSTEM OPTIONS AND ACCESSORIES**  
FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)  
CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED  
METAL BLOW-OFF CAPS - INCLUDED  
GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2" (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200  
HOOD SUPPRESSION TANK - INCLUDED - 6 GAL. - (2) 3.0 TANK(S)  
REMOTE PULL STATION - STANDARD - FIELD INSTALLATION AT SINGLE POINT OF EGRESS



contact the Accurex Piedmont office w/ questions:  
Mark Bowman  
mark.bowman@accurex.com  
828.579.1123

\*\*\* NOTE \*\*\*  
ALL WALLS THAT COME WITHIN 18" OF HOOD MUST BE METAL STUDS AND SHEETROCK. WOOD STUDS NOT ALLOWED.

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted

Approved with NO Exception Taken

Revise and Resubmit

SIGNATURE \_\_\_\_\_

Your Title \_\_\_\_\_ Date \_\_\_\_\_

**ACCUREX**

CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023



01/09/2023

ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.01**

HOOD INFORMATION															
HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST COLLAR(S)			SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION	
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	WIDTH	LENGTH	DIA.	CFM	S.P.		
1	ITEM 38 (SOLID FUEL)	XWAE-B-98-S	98	60	30	430 SS 10EXTRAHEAVY	3000	3000	16	3000	1.364			1075.533	SINGLE

HOOD INFORMATION														
HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS			UTILITY CABINET(S)						
		FIXTURE TYPE	BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL	MATERIAL	QTY	SIZE (IN.)	LOCATION	FIRE SYSTEM	CONTROLS		
								L	H		TYPE	SIZE	MODEL	INTERFACE
1	ITEM 38 (SOLID FUEL)	INCANDESCENT (GLOBE)	100W A19 (BULBS NOT INCL.)	5	46.56	SPARK ARRESTOR	BAFFLE	0	16	16	RIGHT		ASCP-K	KEYPAD

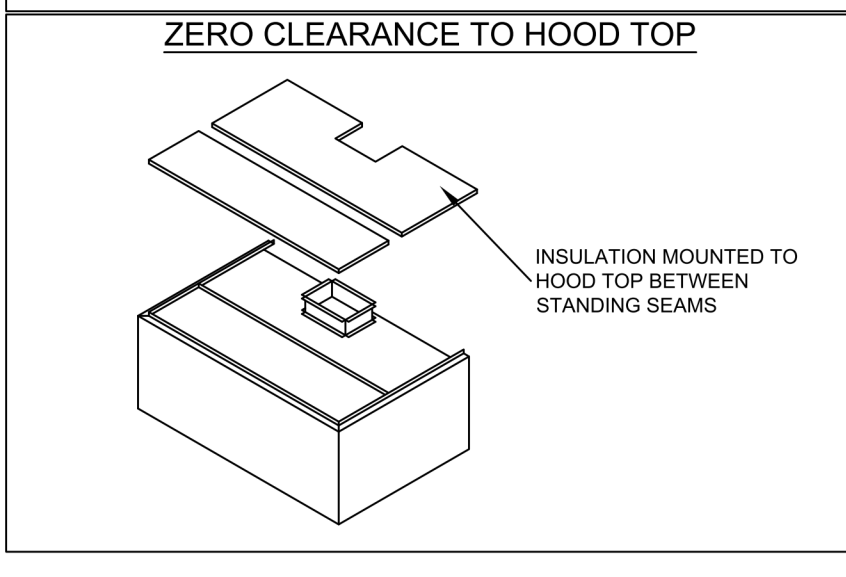
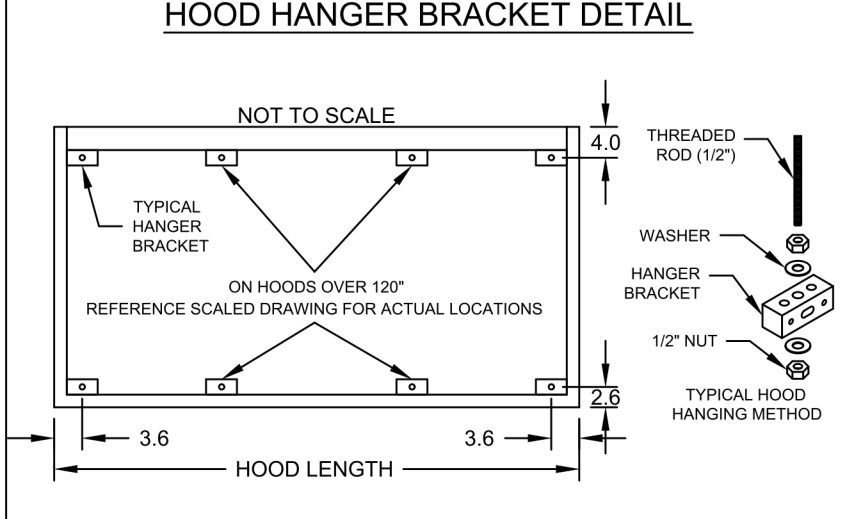
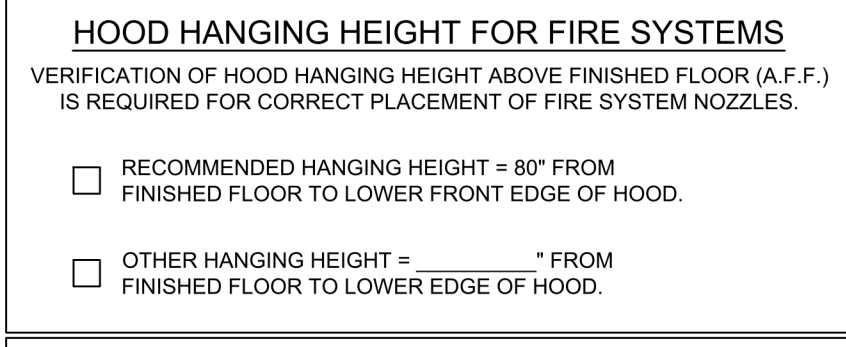
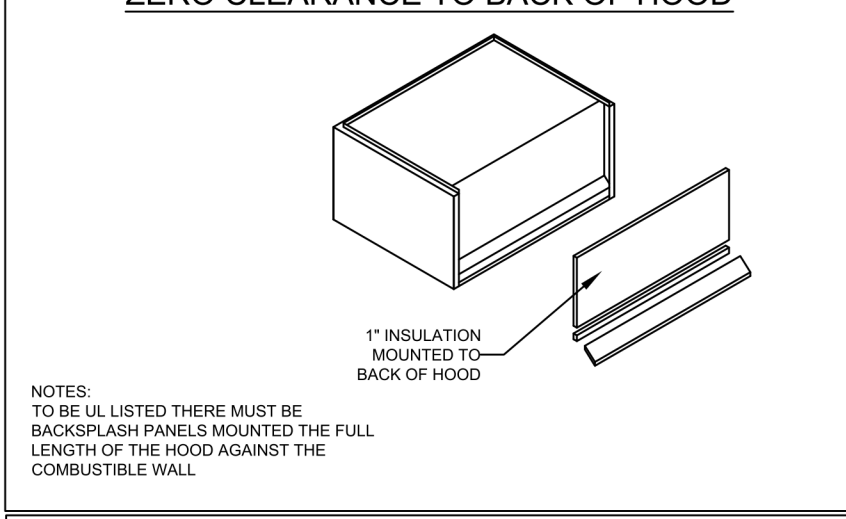
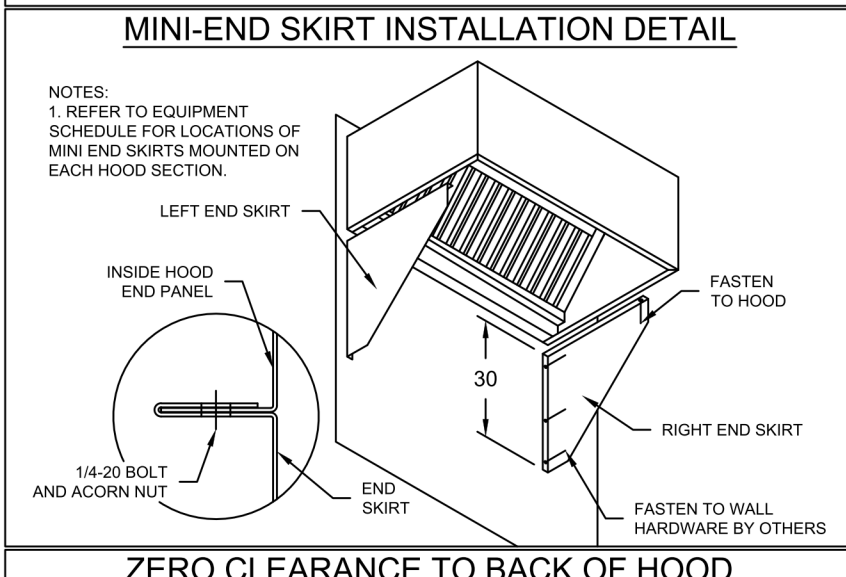
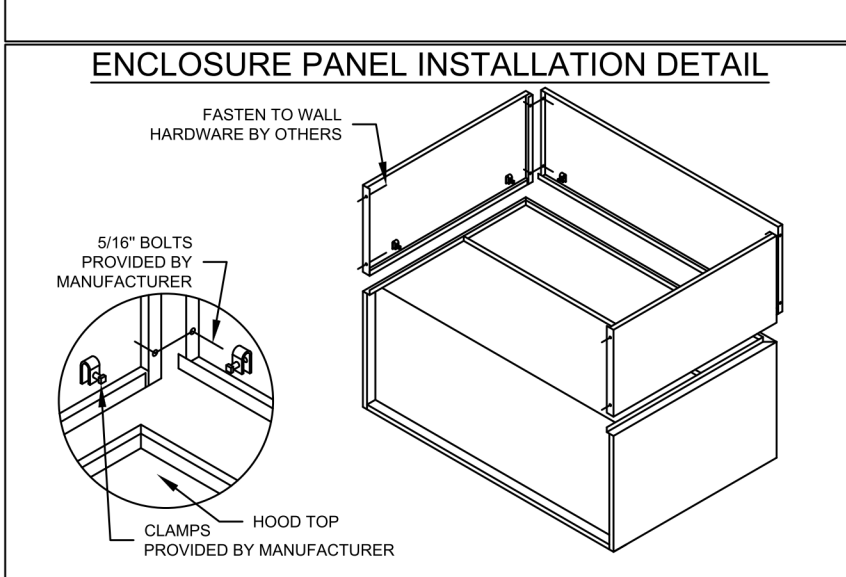
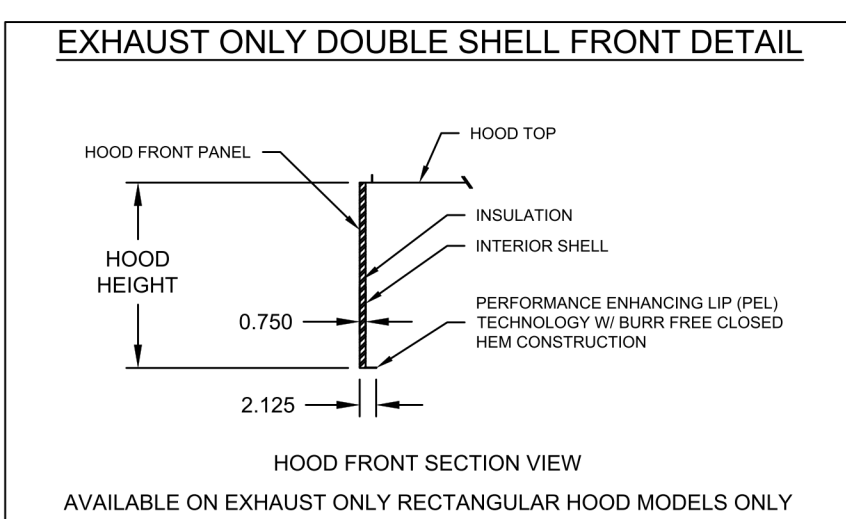
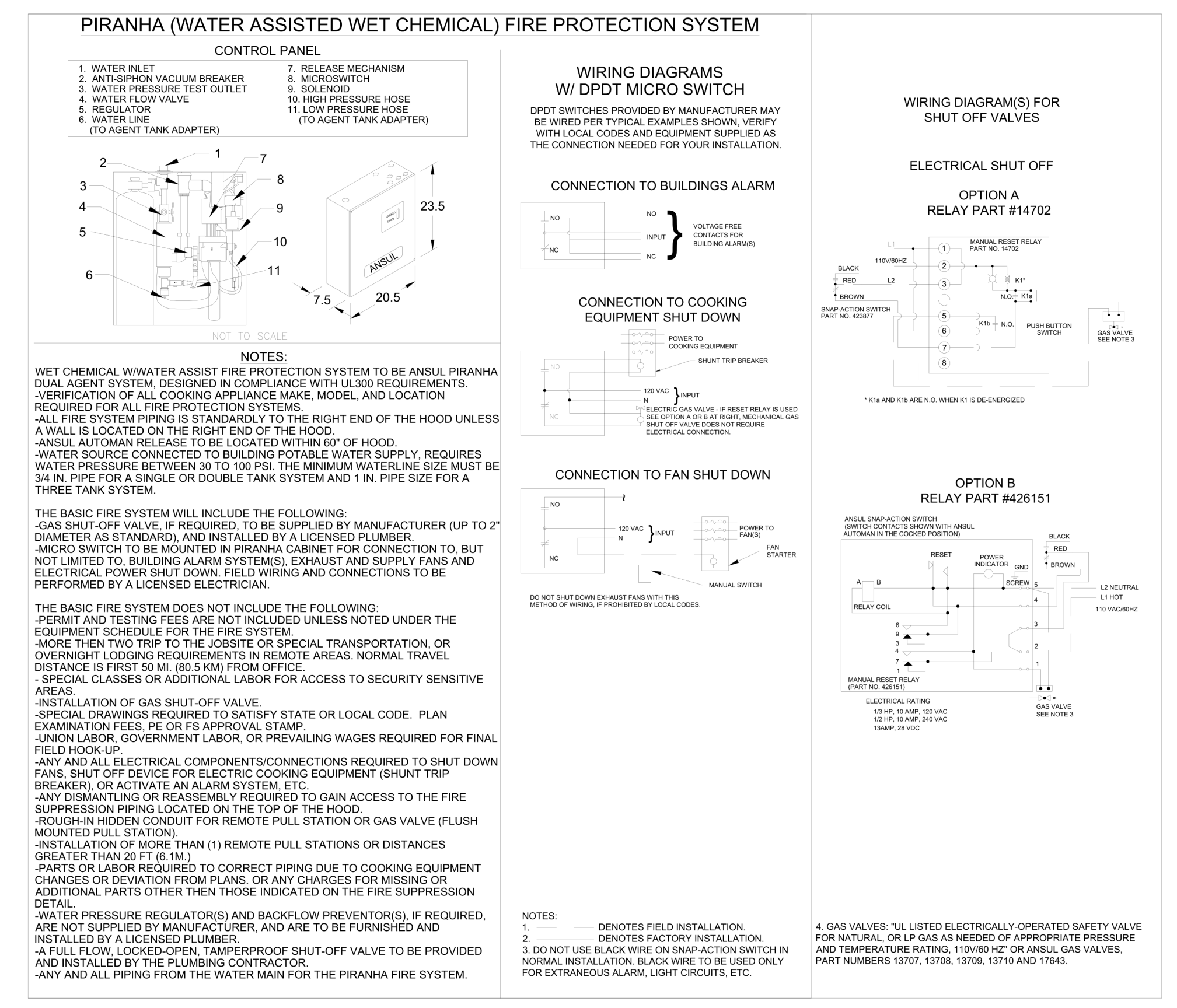
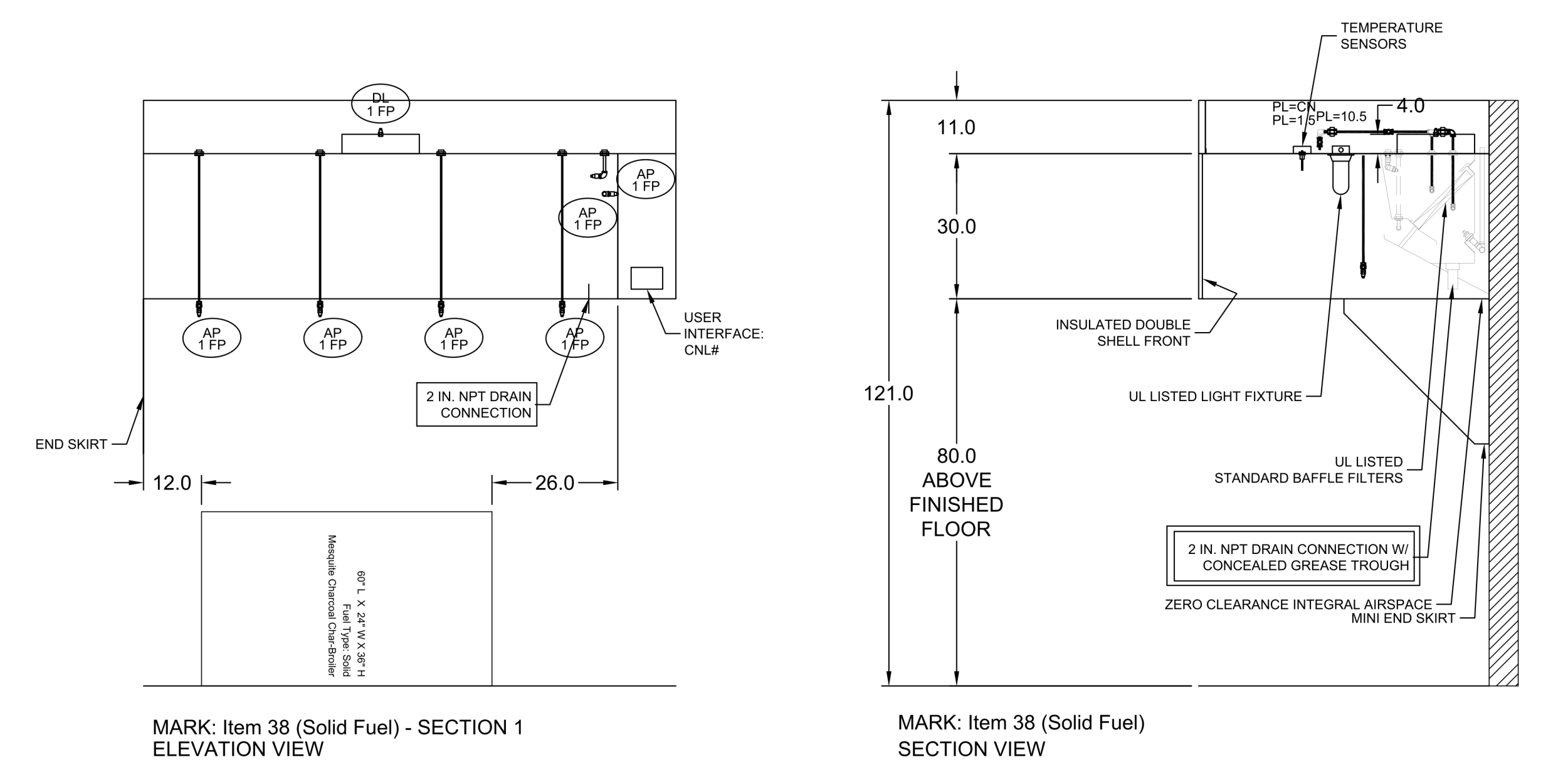
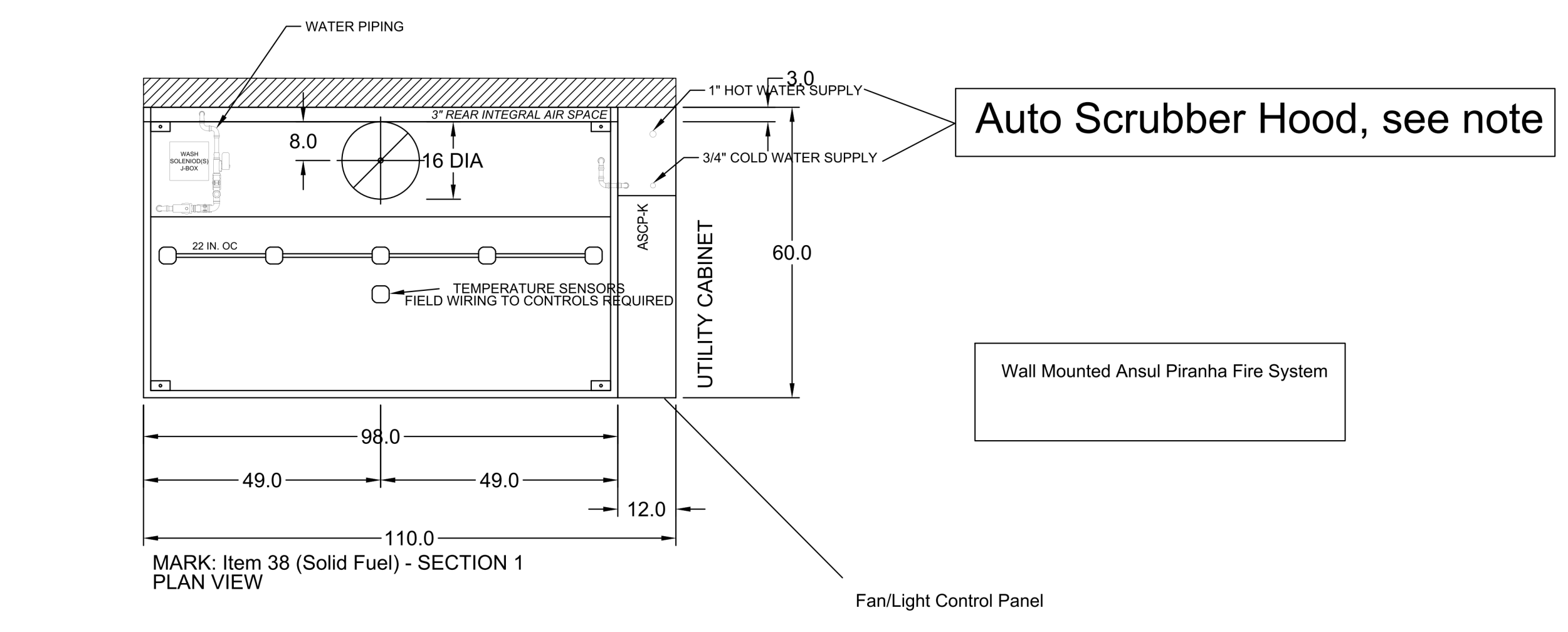
**HOOD OPTIONS**  
 UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625  
 HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES  
 BACK INTEGRAL AIR SPACE - 3 IN WIDE  
 11 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED  
 FACTORY MOUNTED EXHAUST COLLAR(S)  
 LEFT MINI END SKIRT - 30 IN HIGH 30.00 IN TOP WIDTH 4.0 IN BOTTOM WIDTH  
 GREASE GRABBER FILTER RACK(HOOD IS UPGRADABLE FOR HIGHER GREASE APPLICATIONS)  
 HOOD CONTAINS SOLID FUEL COOKING APPLIANCES  
 PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY  
 STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

contact the Accurex Piedmont office w/ questions:  
 Mark Bowman  
 mark.bowman@accurex.com  
 828.579.1123

**Auto Scrubber Hood**

- Hot water temperature should be 140°F.
- While the hood is washing, water pressure in the control panel should be between 40 and 70 PSI.
- Cold mist water pressure should be between 20 and 40 PSI.

**FIRE SYSTEM OPTIONS AND ACCESSORIES**  
 FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)  
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED  
 OVERLAPPING PROTECTION TYPE - FULL HOOD  
 REQUIRED WATER PRESSURE AT CONNECTION - 33 PSI  
 METAL BLOW-OFF CAPS - INCLUDED  
 GAS VALVE - INCLUDED - ELECTRICAL SHUTOFF VALVE, 2", 110V, 60HZ - PART# ELECTRICSHUTOFFVALVE200  
 HOOD SUPPRESSION TANK - INCLUDED - 2.25 GAL. - ((1) 2.25 TANK(S))  
 REMOTE PULL STATION - STANDARD - FIELD INSTALLATION AT SINGLE POINT OF EGRESS



UL NSF  
 FIREBIRDS - PLANO TX  
 ITEM 38 (SOLID FUEL)  
 PROJECT 11/15/2022  
 MARK  
 ACCUREX CENTRAL CAROLINAS & CHARLOTTE  
 MARK.BOWMAN@ACCUREX.COM  
 (828)579-1123

**ACCUREX**

CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023



01/04/2023

ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.02**  
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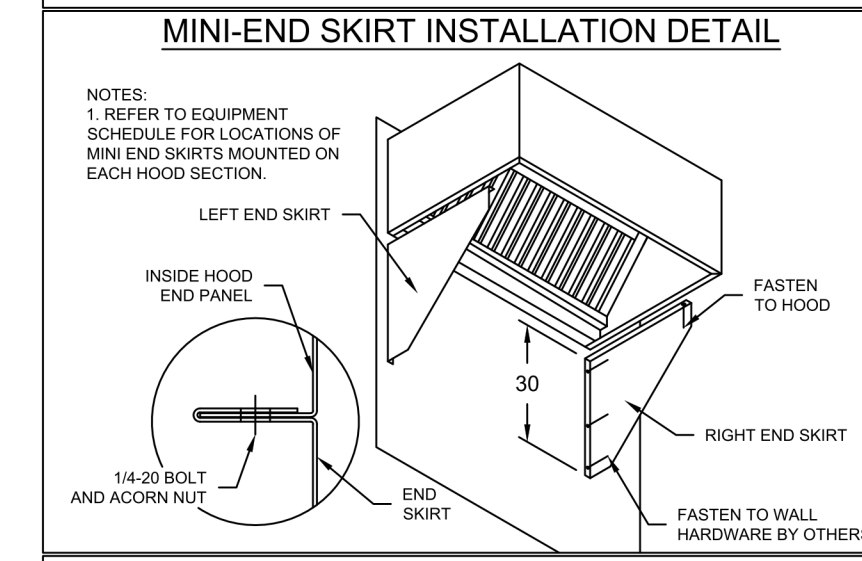
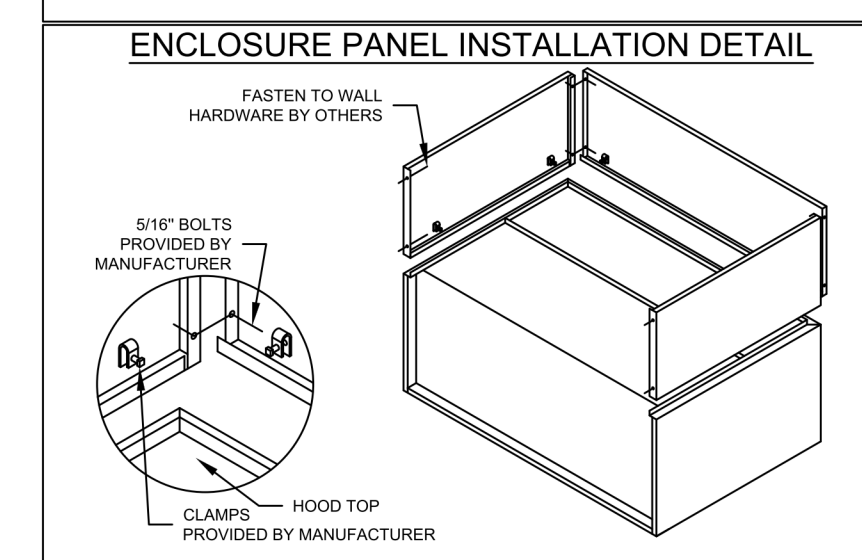
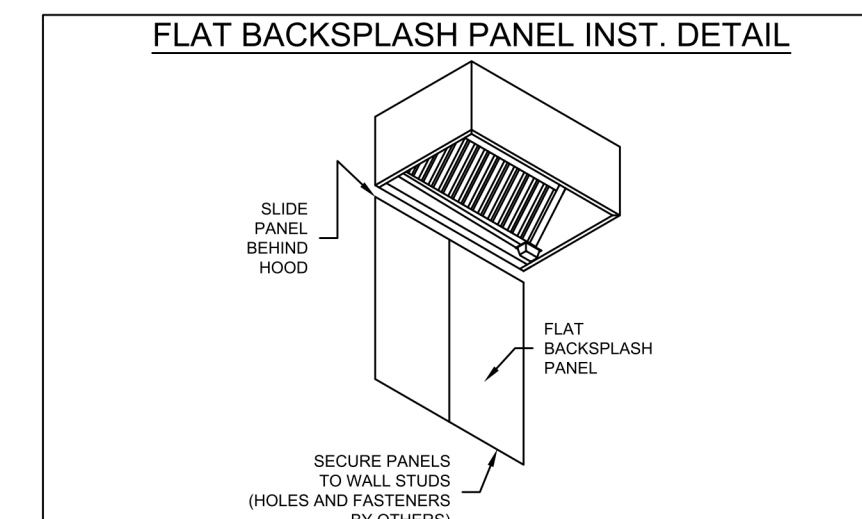
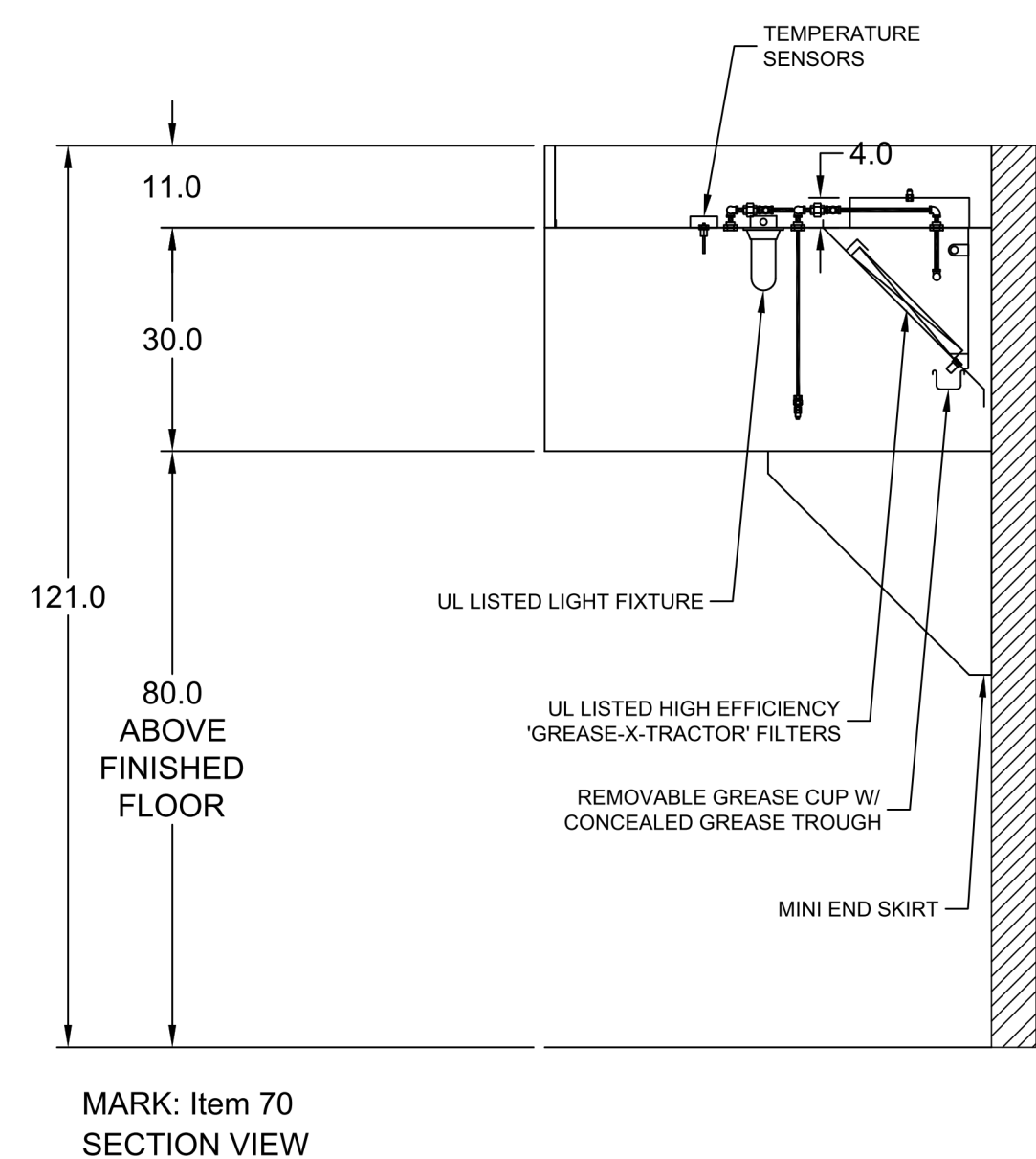
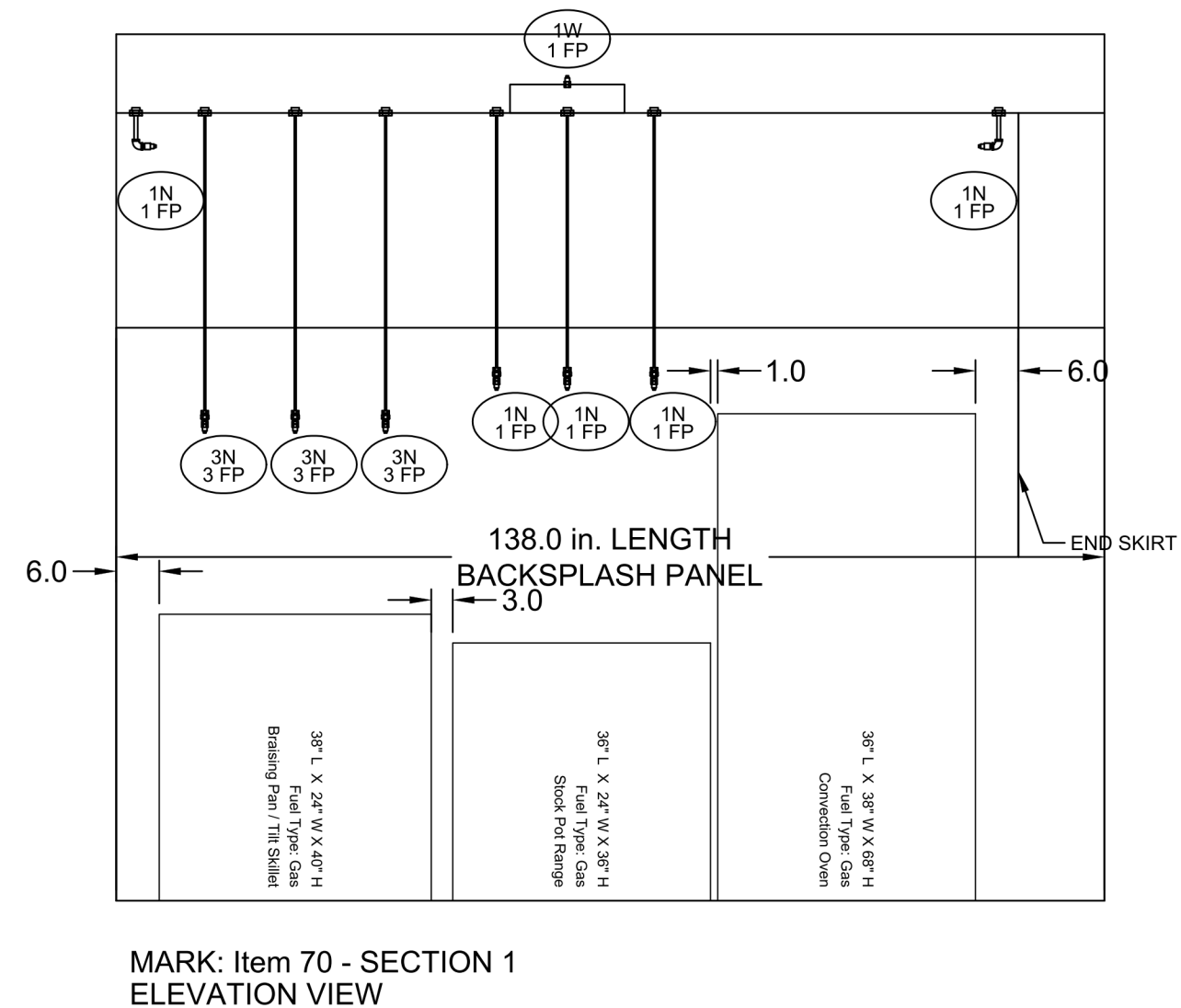
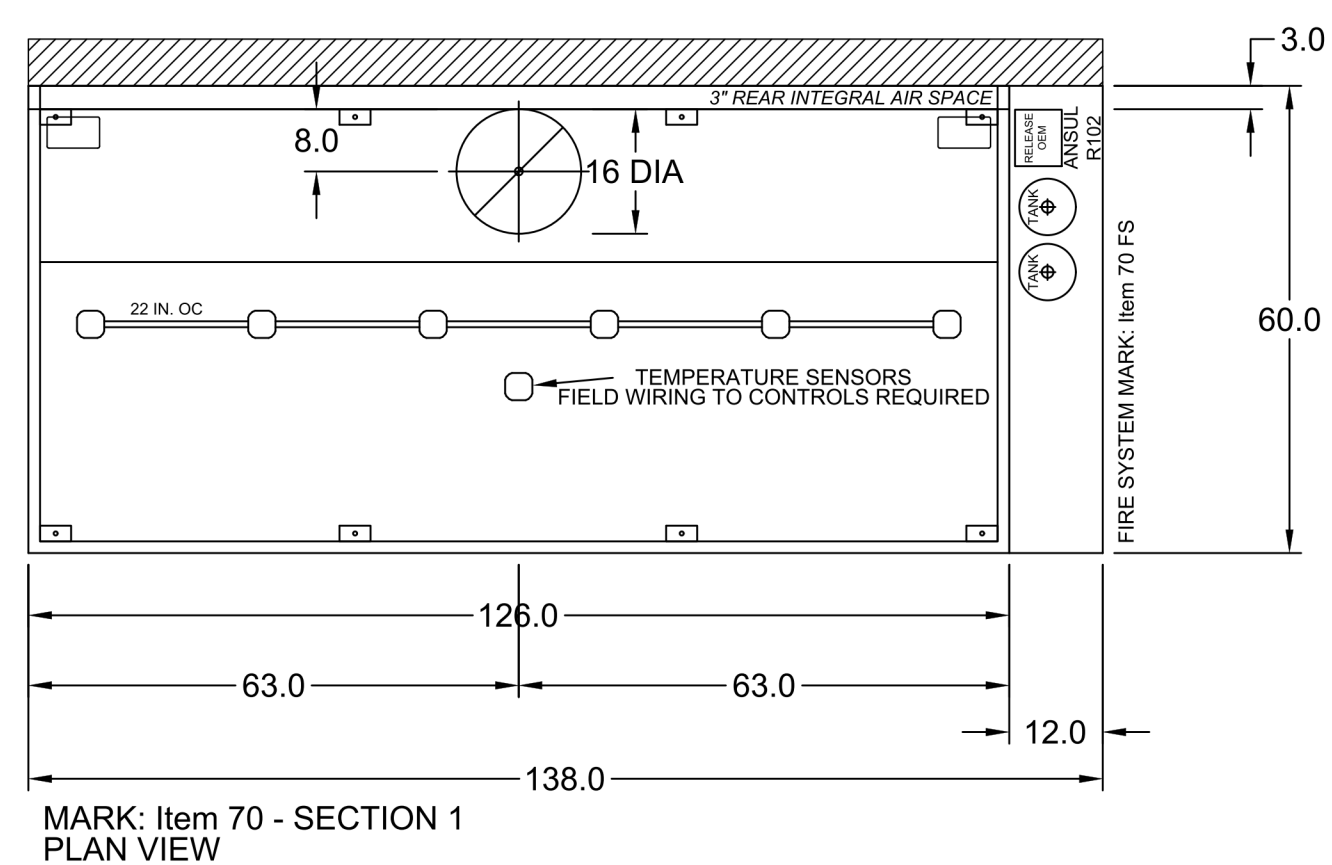
HOOD INFORMATION																
HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	TOTAL CFM	EXHAUST				MUA CFM	AC CFM	TOTAL WEIGHT LBS.	SECTION LOCATION
			LENGTH	WIDTH	HEIGHT				COLLAR(S)							
								WIDTH	LENGTH	DIA.	CFM	S.P.				
1	ITEM 70	XXEW-126-S	126	60	30	430 SS WHERE EXPOSED	HEAVY	2438		16	2438	0.656			382.199	SINGLE

HOOD INFORMATION													
HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS			UTILITY CABINET(S)					
		FIXTURE TYPE	BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL	MATERIAL	QTY	SIZE (IN.)	LOCATION	FIRE SYSTEM	CONTROLS	
								L	H			INTERFACE	
1	ITEM 70	INCANDESCENT (GLOBE)	100W A19 (BULBS NOT INCL.)	6	48.28	X-TRACTOR	STAINLESS STEEL	4	16	20	RIGHT	ANSUL R102	6

FIRE SYSTEM INFORMATION						
MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION
			HOODS	PCU		
ITEM 70 FS	ANSUL R-102 WET CHEMICAL	CABINET - RIGHT END OF ITEM 70	15 UTILIZED	22 AVAILABLE	CONTINUOUS	FUSIBLE LINK
MARK(S) PROTECTED BY FIRE SYSTEM						
ITEM 70 SECTION 1						

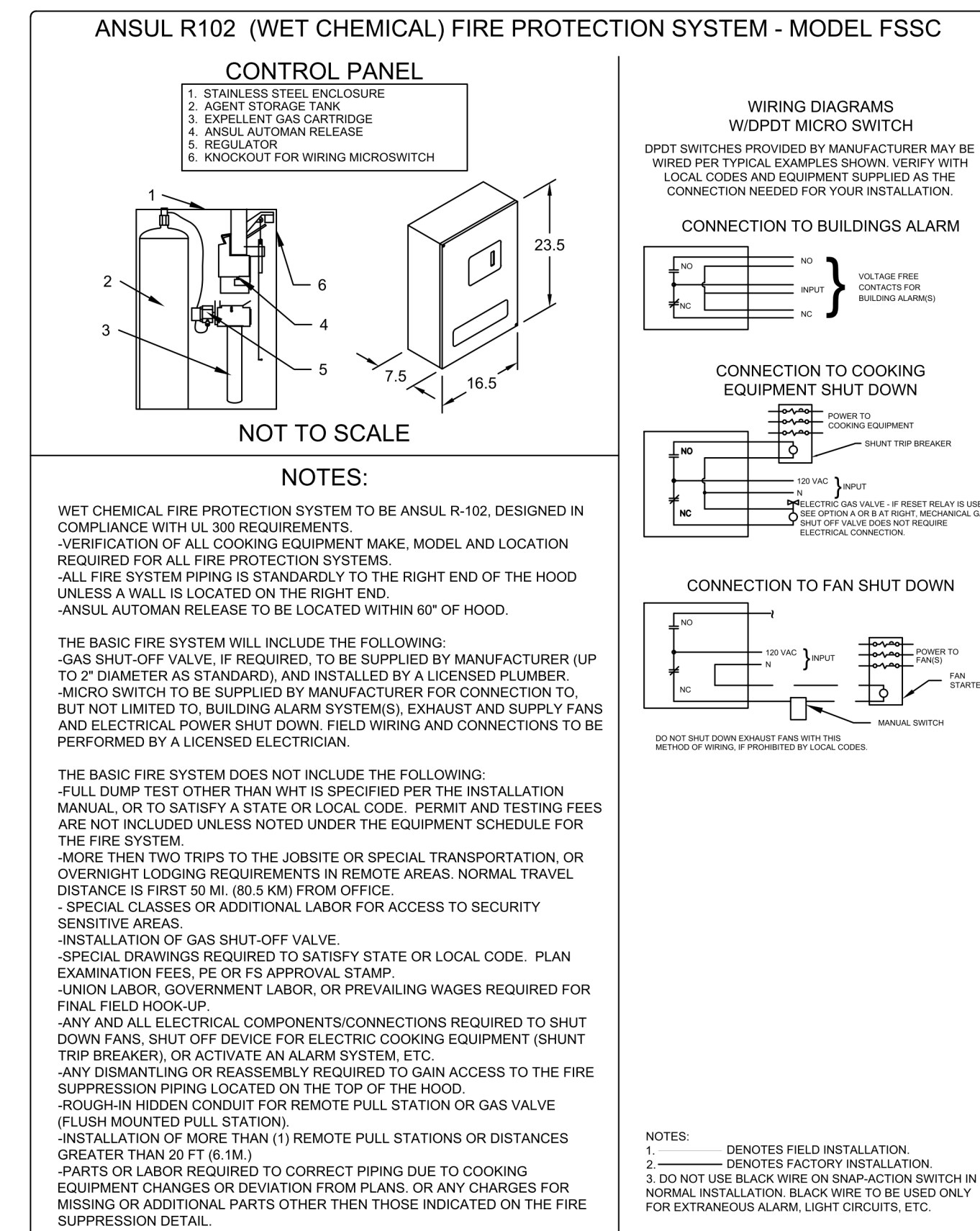
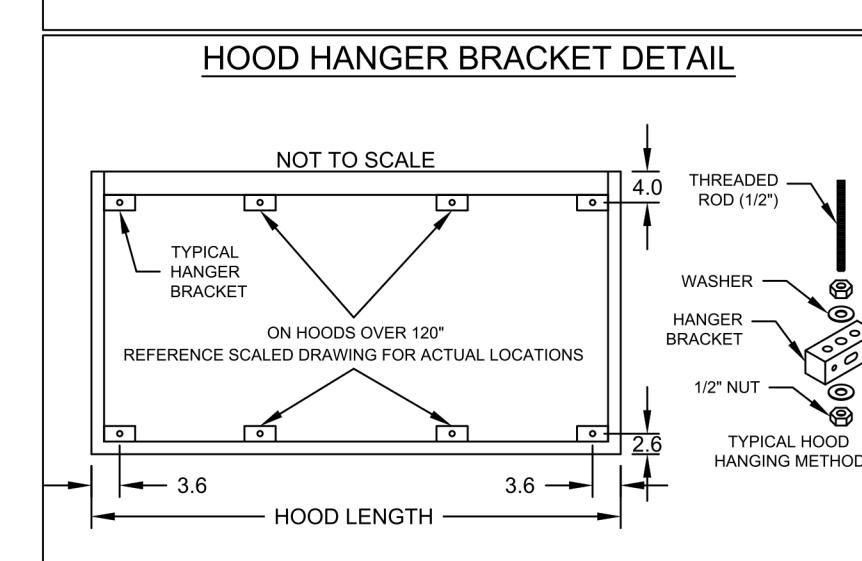
**HOOD OPTIONS**

- UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
- BACK INTEGRAL AIR SPACE - 3 IN WIDE
- 11 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
- FACTORY MOUNTED EXHAUST COLLAR(S)
- RIGHT MINI END SKIRT - 30 IN HIGH 30.00 IN TOP WIDTH 4.0 IN BOTTOM WIDTH
- BACKSPLASH 80.00 IN HIGH 138.00 IN LONG
- PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
- STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH



**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 = 80\"/>
- OTHER HANGING HEIGHT = \* FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.



PROJECT 17175022Z  
17/15/2022  
MARK

ACCUREX CENTRAL CAROLINAS & CHARLOTTE  
MARK.BOWMAN@ACCUREX.COM  
(828)579-1123

**ACCUREX**

CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023



01/09/2023

ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.03**

Direct Drive Upblast Centrifugal Roof Exhaust Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION				
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS
1	EF-1	XCUE-160-VG	2,350	1.078	1,246	0.72	95	1	208/60/1	TN	1300	1

Direct Drive Upblast Centrifugal Roof Exhaust Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	EF-2	XCUE-160-VG	2,820	1.227	1,400	1.03	122	2	208/60/1	TF	1725	1	13.2

Ultimate Steel Grease Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	EF-3	XRUBS-180HP-20	3,000	1.864	1,538	1.64	310	2	208/60/3	OP	1725	1	7.5

Direct Drive Upblast Centrifugal Roof Exhaust Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION				
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS
1	EF-4	XCUE-160-VG	2,438	1.002	1,239	0.71	95	1	208/60/1	TN	1300	1

Direct Drive Upblast Centrifugal Roof Exhaust Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	EF-Dish	XRUD-099-VG	800	0.375	1,386	0.13	57	0.25	115/60/1	TN	1725	1	5.8

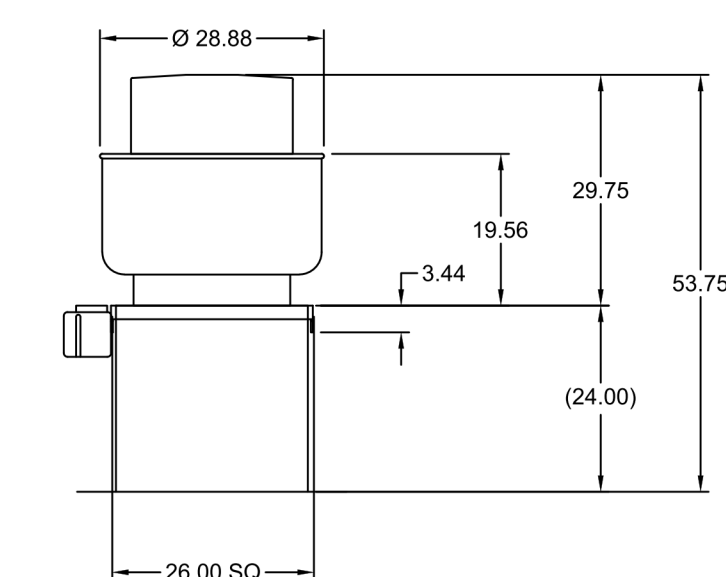
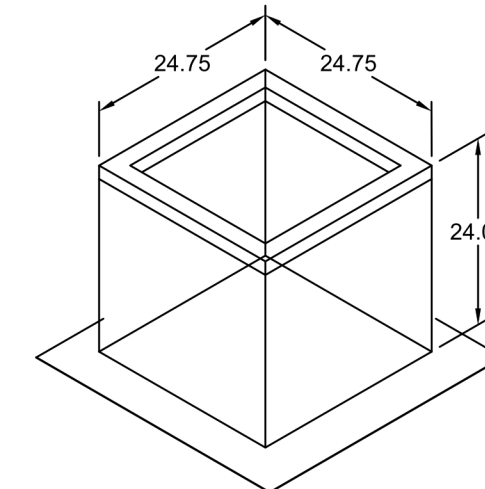
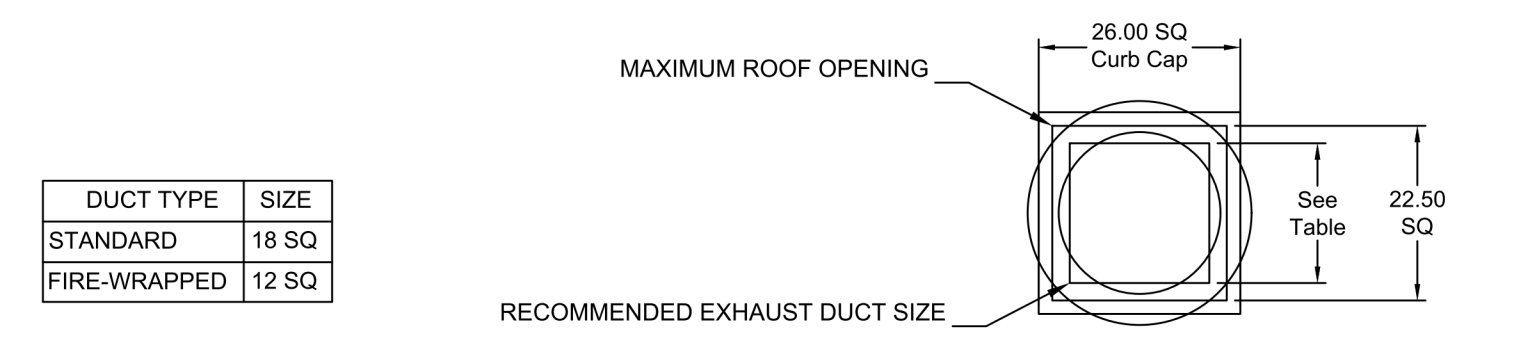
DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB.  
CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.

EF-1 : SELECTED OPTIONS AND ACCESSORIES

One piece fully welded windband  
Tapered bushing wheel hub  
Breather tube outlet area min. 4.4 sq. in. (sizes 99-480), 2.0 sq. in. (sizes 60-95)  
Min. windband material thickness: 0.051" aluminum (060-240), 0.064" aluminum (240HP, 240XP), 0.080" aluminum (sizes 300-480)  
Larger Curb Cap Size - 26 Square  
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"  
Switch, NEMA-3R, Toggle, Shipped with Unit  
Hinge, Factory Installed  
Grease Trap (PN 475538)

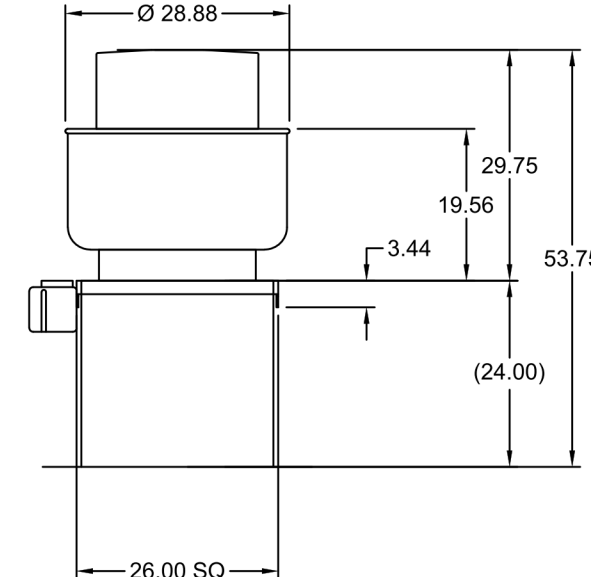
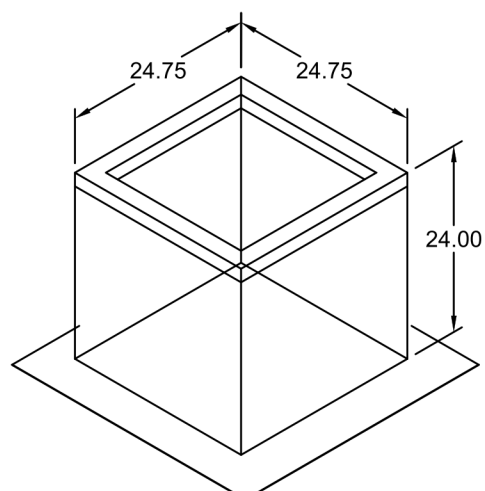
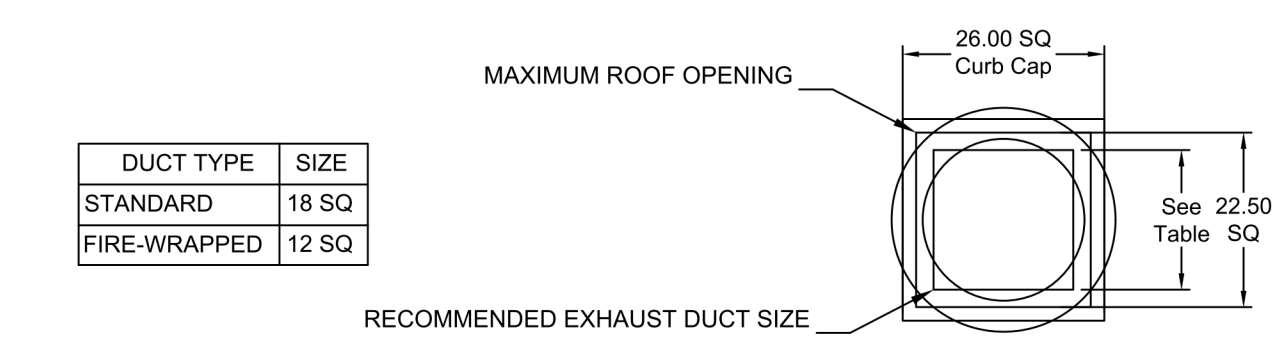
EF-1



EF-2

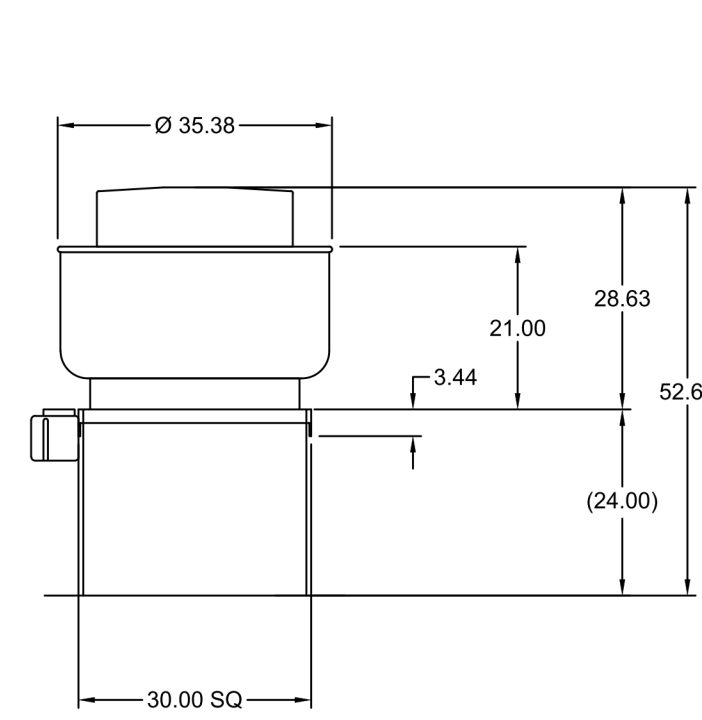
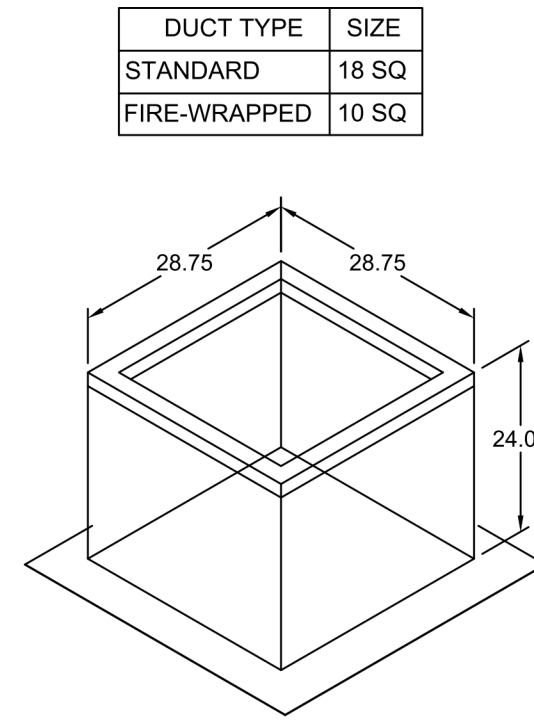
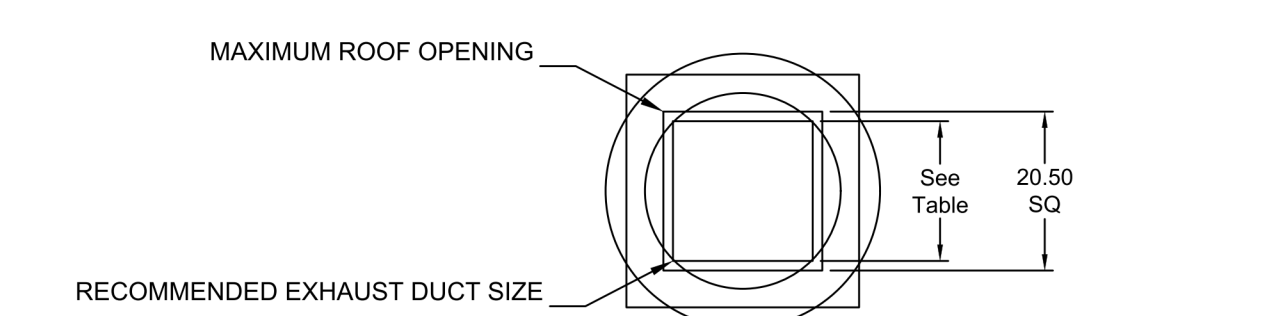
EF-2 : SELECTED OPTIONS AND ACCESSORIES  
One piece fully welded windband  
Tapered bushing wheel hub  
Breather tube outlet area min. 4.4 sq. in. (sizes 99-480), 2.0 sq. in. (sizes 60-95)  
Min. windband material thickness: 0.051" aluminum (060-240), 0.064" aluminum (240HP, 240XP), 0.080" aluminum (sizes 300-480)  
Larger Curb Cap Size - 26 Square  
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"  
Switch, NEMA-3R, Toggle, Shipped with Unit  
Hinge, Factory Installed  
Grease Trap (PN 475538)

KEF-1



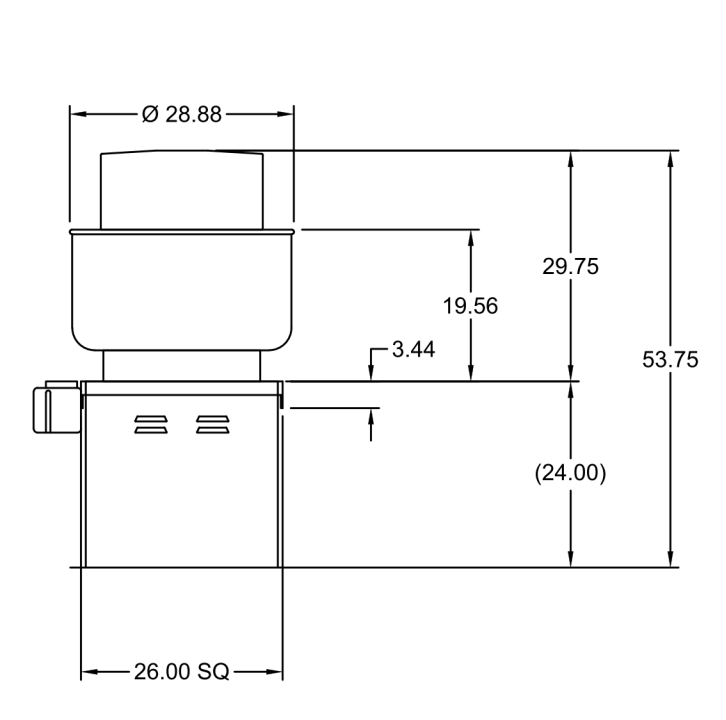
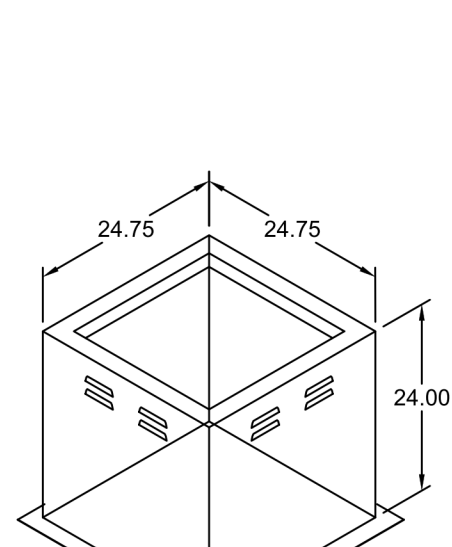
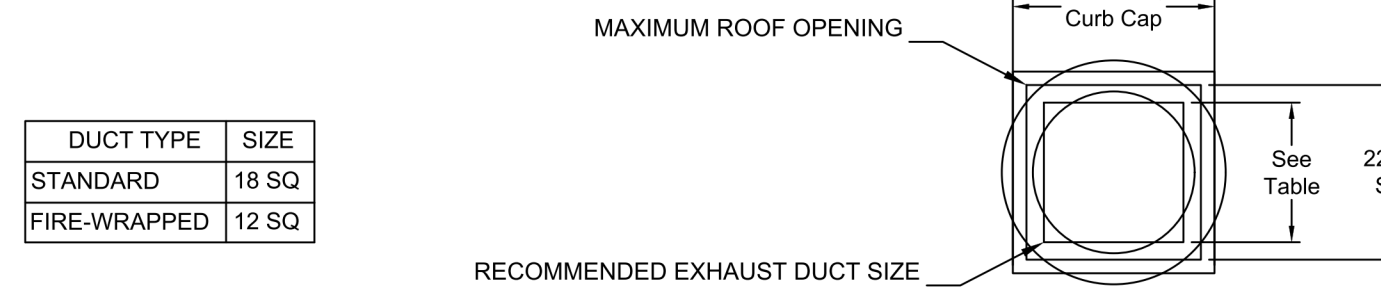
EF-3

EF-3 : SELECTED OPTIONS AND ACCESSORIES  
Standard Curb Cap Size - 30 Square  
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"  
Switch, NEMA-3R, Toggle, Shipped with Unit  
Hinged Base (Attached)  
High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)  
Coated with Permatector, Concrete Gray-RAL 7023, Fan And Attached Acc Non-Stick Coated Wheel (Teflon)  
Grease Trap (PN 475538)  
Heat Baffle (Attached)  
Bearings with Grease Fittings, L10 life of 100,000 hrs (L50 avg. life 500,000 hrs)  
Clean-out Port - Factory Installed



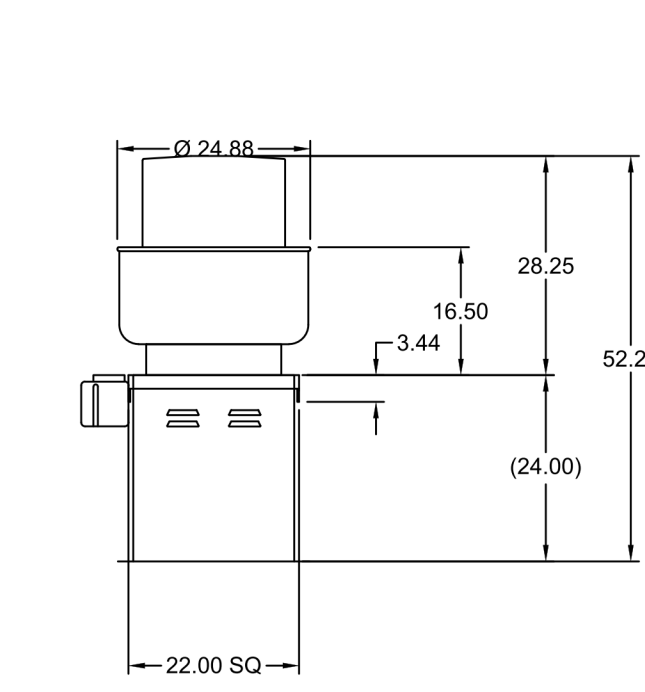
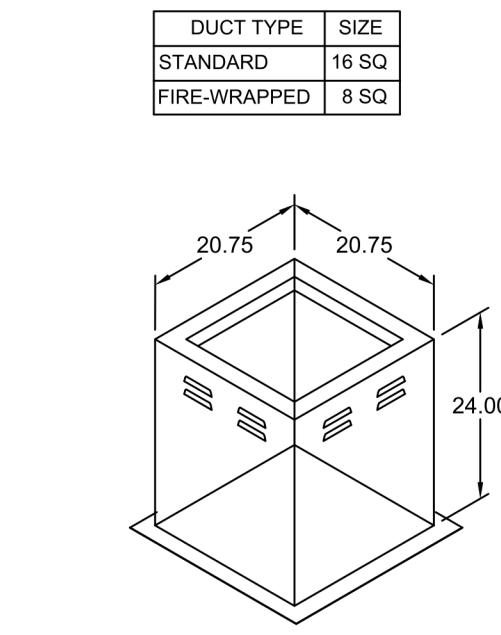
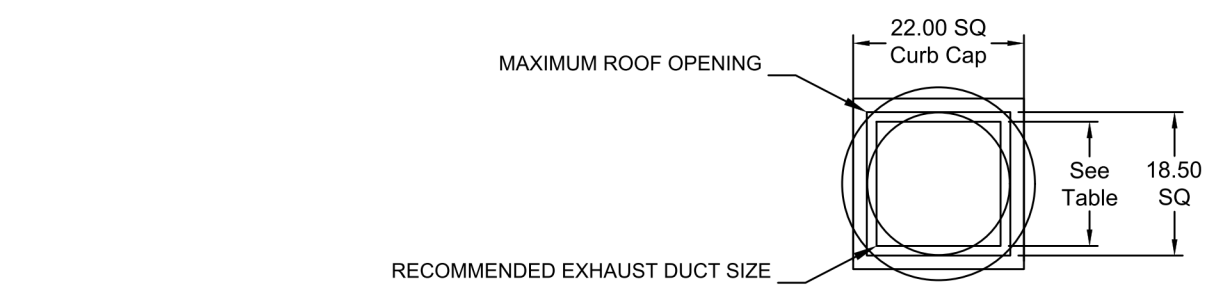
EF-4

EF-4 : SELECTED OPTIONS AND ACCESSORIES  
One piece fully welded windband  
Tapered bushing wheel hub  
Breather tube outlet area min. 4.4 sq. in. (sizes 99-480), 2.0 sq. in. (sizes 60-95)  
Min. windband material thickness: 0.051" aluminum (060-240), 0.064" aluminum (240HP, 240XP), 0.080" aluminum (sizes 300-480)  
Larger Curb Cap Size - 26 Square  
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"  
Switch, NEMA-3R, Toggle, Shipped with Unit  
Hinge, Factory Installed  
High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)  
Grease Trap (PN 475538)



EF-5

EF-Dish : SELECTED OPTIONS AND ACCESSORIES  
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"  
Switch, NEMA-3R, Toggle, Shipped with Unit  
Hinge, Factory Installed  
High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)  
Grease Trap (PN 475538)



UL NSF  
EF-DISH  
FIREBIRDS - PLANO TX

PROJECT 11/15/2022  
MARK  
ACCUREX CENTRAL CAROLINAS & CHARLOTTE  
MARK.BOWMAN@ACCUREX.COM  
(828)579-1123

**ACCUREX**

CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023



01/09/2023

ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.04**

EQUIPMENT SCHEDULE

Packaged Ventilator													
Mark Name	Qty	Model	Mounting Location	Weight									
DOAS1	1	XRV-45-301-M-A0	Outdoor	3,783 lb									
Supply Fan				Electrical									
Outdoor Air Volume	Supply ESP	Supply TSP	FRPM	Supply BHP	Supply Motor	Voltage	Frequency	Phase	Unit MCA	Unit MDP			
5,170 CFM	0.5 in. wg	1.481 in. wg	1238	1.98	(1) 3 hp	208	60	3	135.6	175			
Cooling Section													
Coil Entering DB	Coil Entering WB	Coil Leaving DB	Coil Leaving WB	Nominal Tonnage	Total Capacity	Sensible Capacity	Coil Face Velocity	Coil Pressure Drop	Rows Deep	Fins per Inch	Compressor Type	Compressor Qty	AHRJ 920 ISMRE
83.5 F	77.3 F	55.8 F	55.8 F	30.0	407.6 MBH	158.5 MBH	256 ft/min	0.292 in. wg	6	12	Inverter Scroll	2	5.0
Heating Section						Hot Gas Reheat							
Gas Type	Input	Output	EAT	LAT	Furnace Control	Temp Rise	Hot Gas Reheat Capacity	LAT					
Natural	400.0 MBH	320.0 MBH	20.3 F	77.6 F	4:1 Modulating	57.3 F	135.0 MBH	80.0 F					

**NOTES**

Painted exterior with 2,500 hr. self-priming zinc.  
Outdoor wall 1/2" RIG gasketed foam insulated casing.  
Single condenser fan shall not exceed a sound power level of 75 LwA.  
Compressors mounted on a shelf behind an insulated door for improved outdoor and transmitted sound.  
Direct-drive fans with factory mounted VFDs.  
Controller must have simplified access via a laptop to view and change unit operation, set points, alarm history & 1 week of trending data.  
Modulating gas furnace with 4:1 Modulating turndown and a 25 year 100 warranty.

**OPTIONS AND ACCESSORIES**

Weatherhood Downward Hood  
Supply Fans - 2" Pinned MERV 8, 8-16x25x2  
Outdoor Air Dampers - Motorized Low Leakage  
Recirc Dampers - Motorized Low Leakage  
Painted Exterior - Concrete Gray (RAL 7023)  
Microprocessor Controls  
Supply Fan VFD Control - Constant Volume-AJ, Setpoint  
Space Thermostat - 1 Temp and RH, 1 Additional Temp Only (req)  
Dirty Filter Sensor - Final  
Phase and Brown Out Protection  
Branch Circuit Fusing  
Unit Disconnect - Mounted By Factory  
Heat Gauge  
Shipped Loose Smoke Detectors - Supply  
Unit Warranty: 18 Months (Standard)

**Curb Installation Instructions**

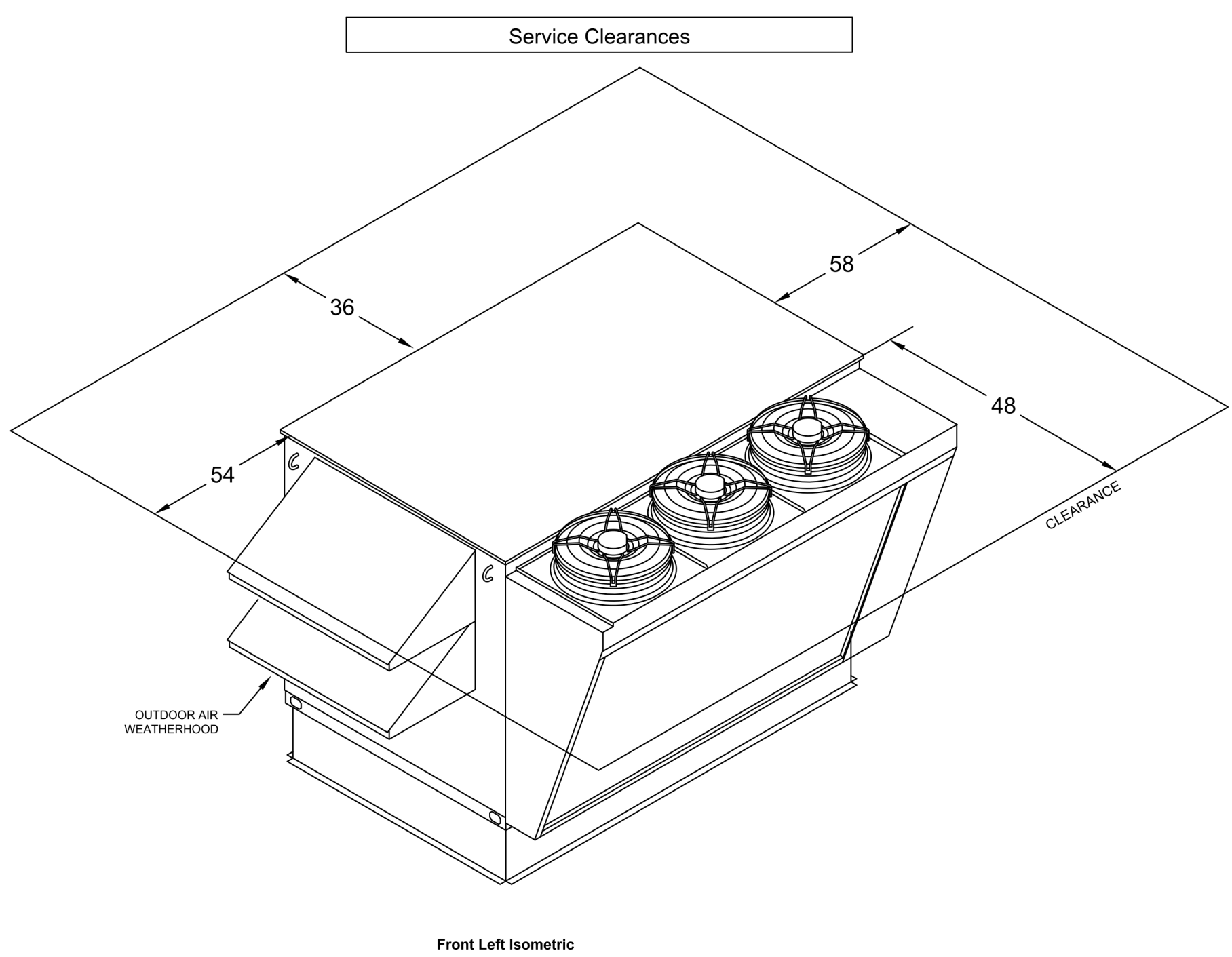
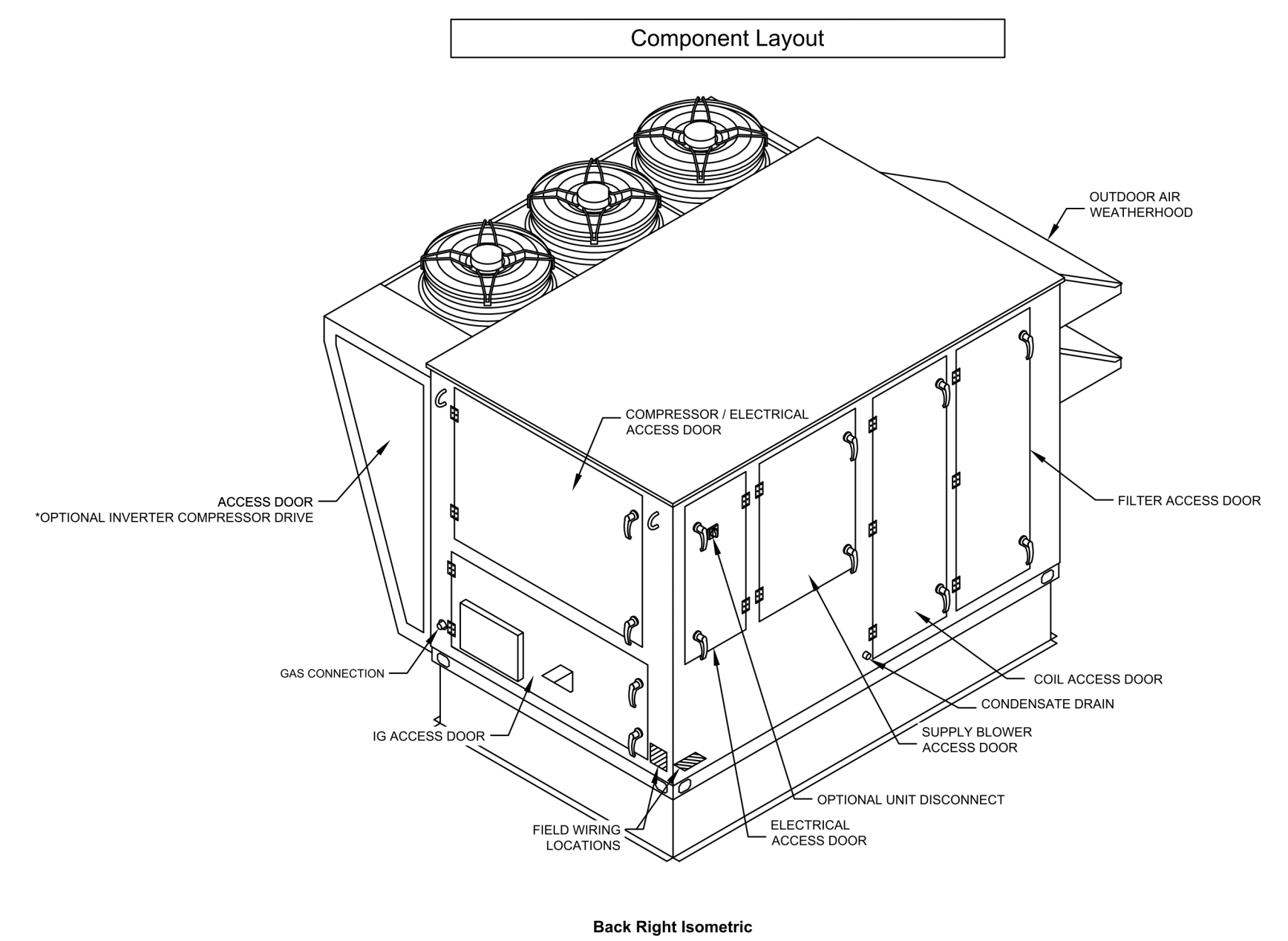
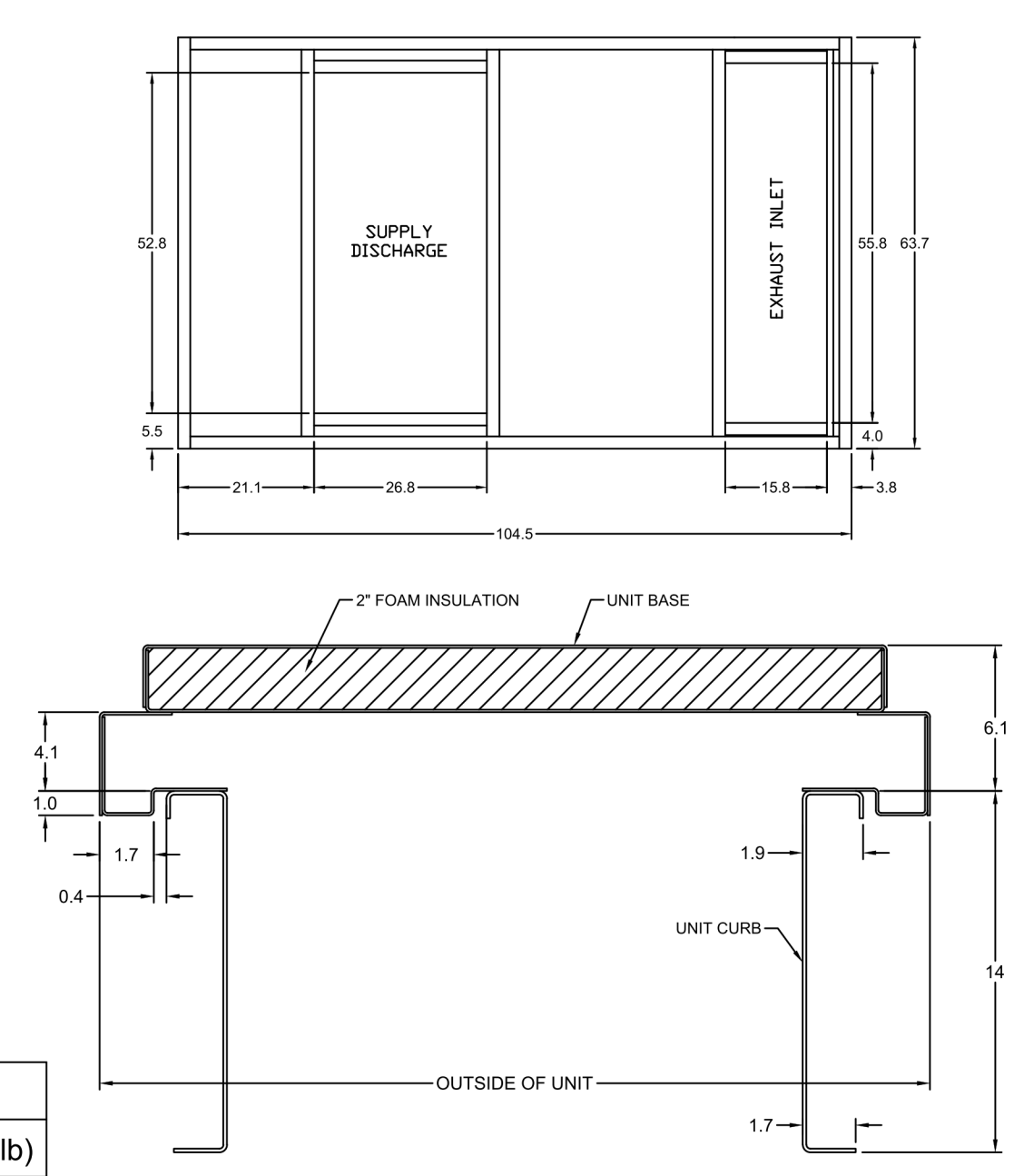
1. Factory supplied roof curbs. Roof curbs are model GKD which ship in a knockdown kit (includes duct adapters) and require field assembly (by others) on all units except XRV-110 which are shipped assembled. Assembly instructions are included with the curb kit.
2. Install curb. Locate curb over roof opening and fasten in place. Check that the diagonal dimensions are within ± 1/8 inch of each other and adjust as necessary. For proper coil drainage and unit operation, it is important that the installation be level. Shim the curb as required to level. Install gasketing on top surface of curb (provided by others).
3. Install ductwork. Installation of all ducts should be done in accordance with SMACNA and AMCA guidelines. Duct adapters are provided to support ducts prior to setting the unit.
4. Set the unit. Lift unit to a point directly above the curb and duct openings. Guide unit while lowering to align with duct openings. Roof curbs fit inside the unit base. Make sure the unit is properly seated on the curb and level.
5. Fasten the unit. Fasten the unit to the curb/equipment support(s) using the appropriate methods. The installer is responsible for determining appropriate support and fastening methods to ensure compliance with all applicable codes.
6. Install vestibule. If unit was ordered with a vestibule and it has not yet been attached to the unit, caulk and attach the vestibule at this time.

**Curb Specifications**

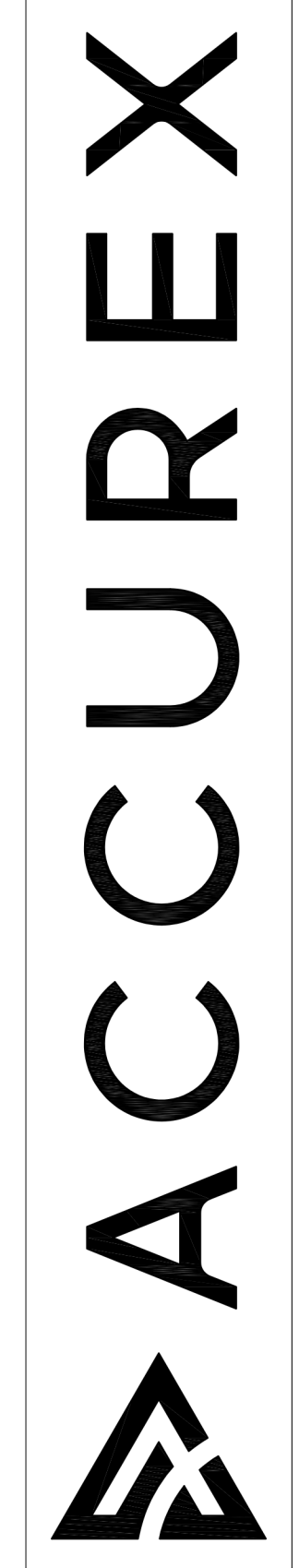
Height (in)	Length (in)	Width (in)	Material	Finish Type	Duct Adapter	Weight (lb)
14	104.4	63.74	Galvanized	Galvanized	Yes	263

**Doas:  
Down Discharge  
Down Return**

Curb Detail

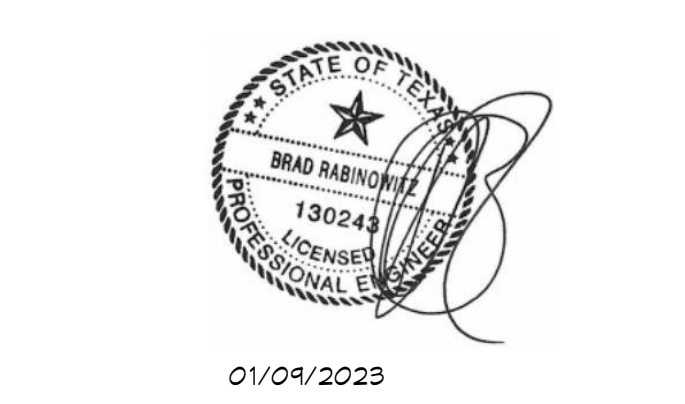


PROJECT 11/14/2022  
 FIREBIRDS - PLANO TX  
 ACCUREX CENTRAL CAROLINA'S CHARLOTTE  
 MARK BONMAN  
 DOAS@GREENHECK.COM  
 (628)579-1123  
 J-L NEF  
 DOAS1



CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023

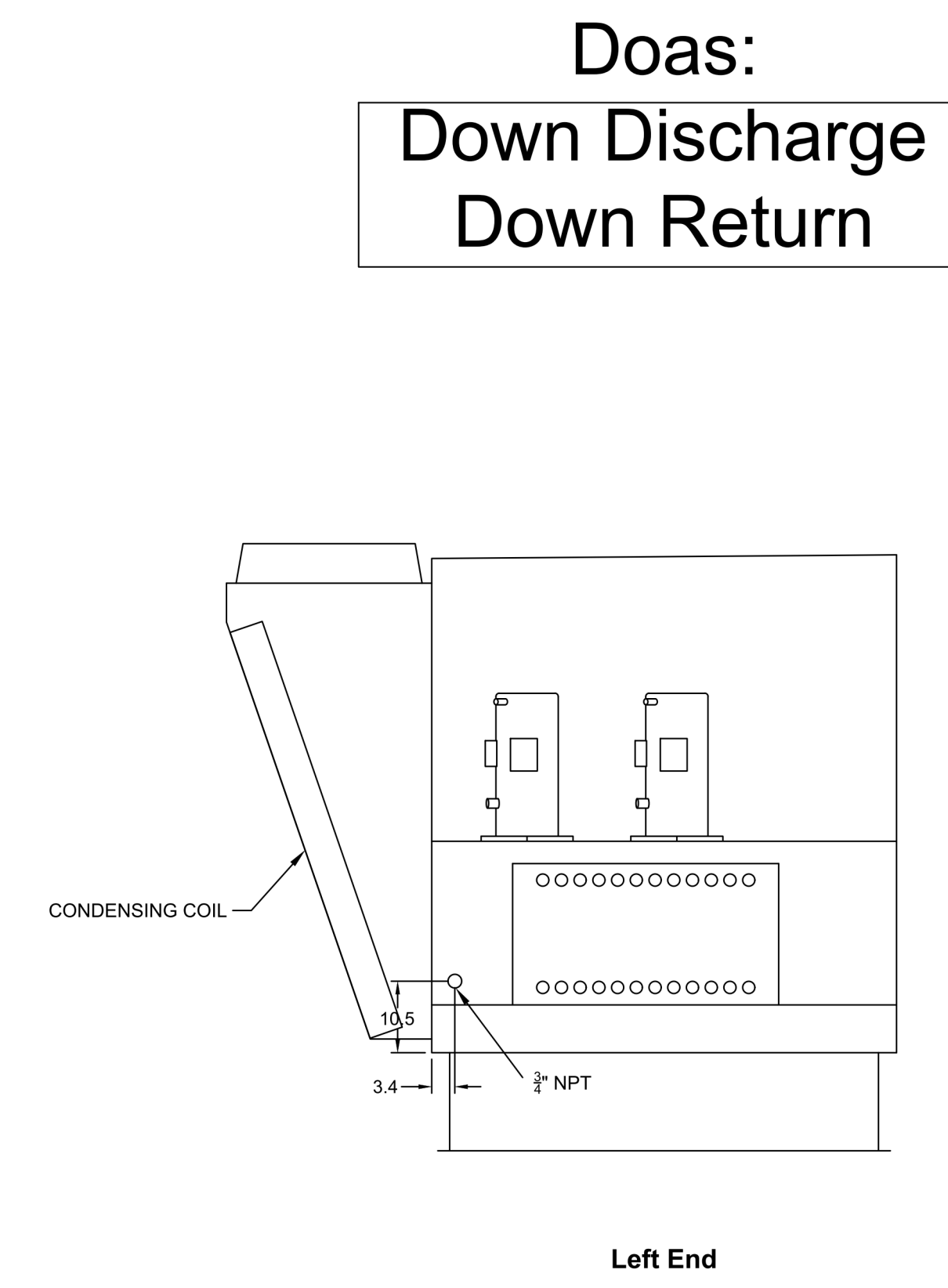
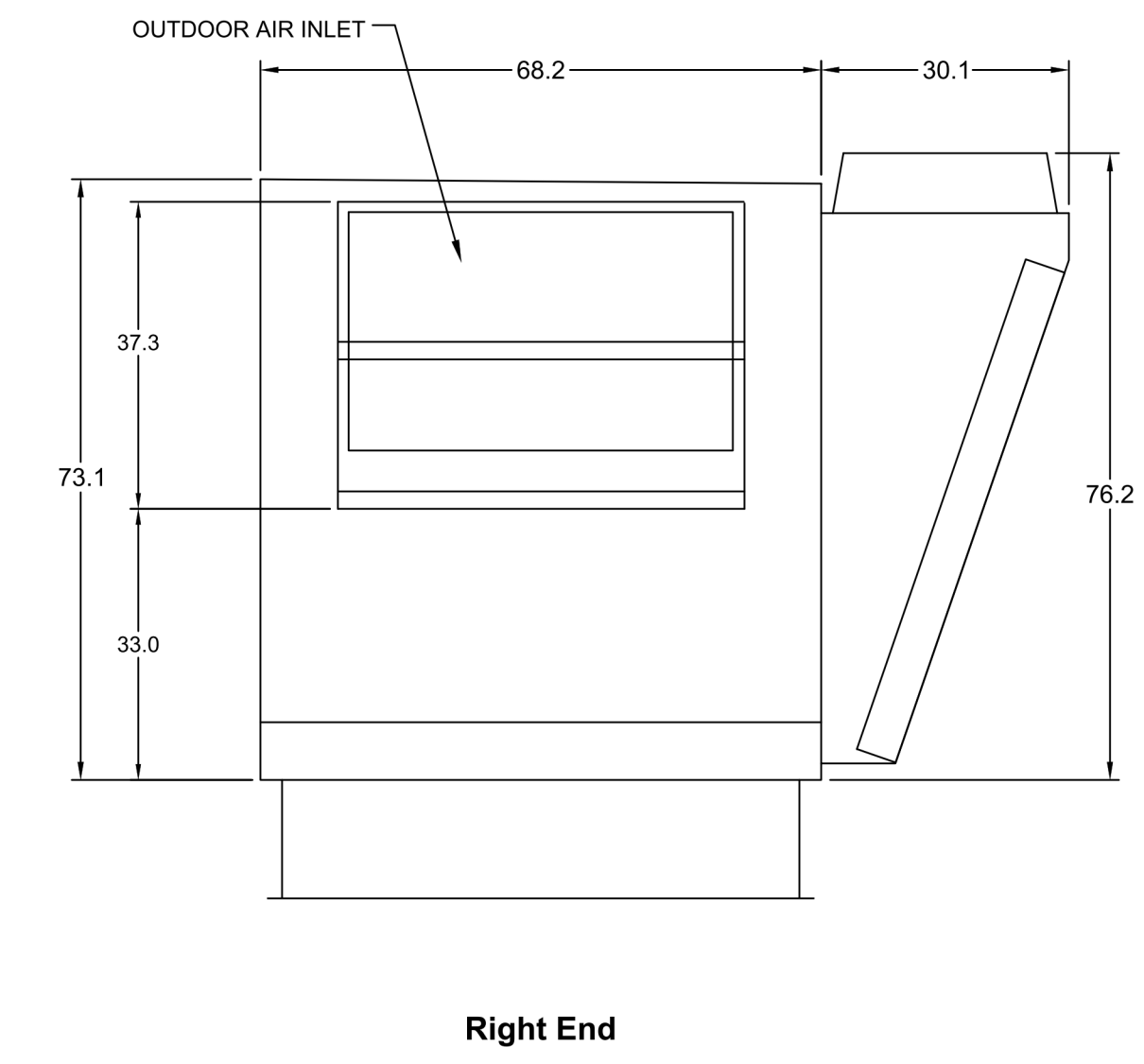
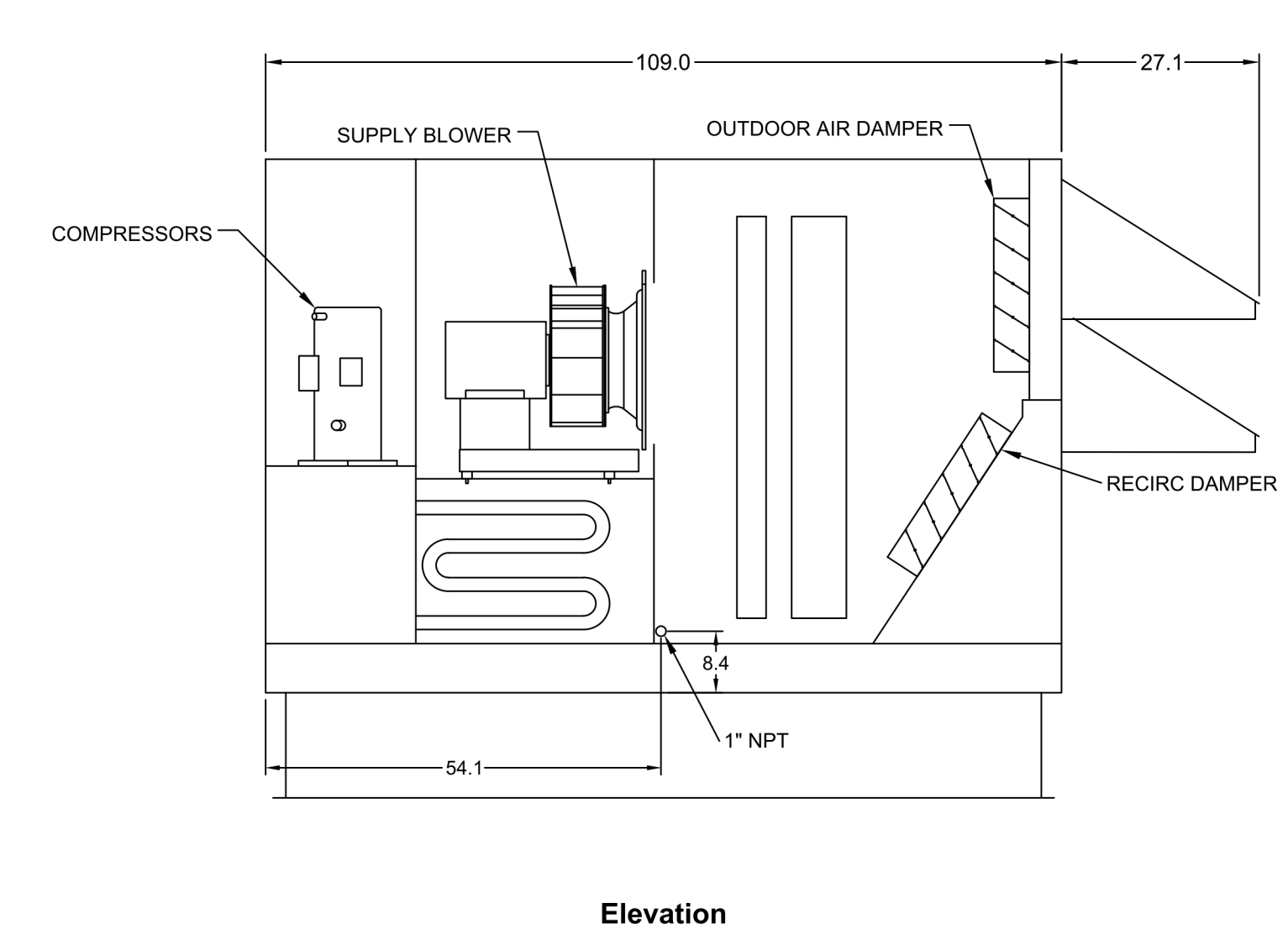
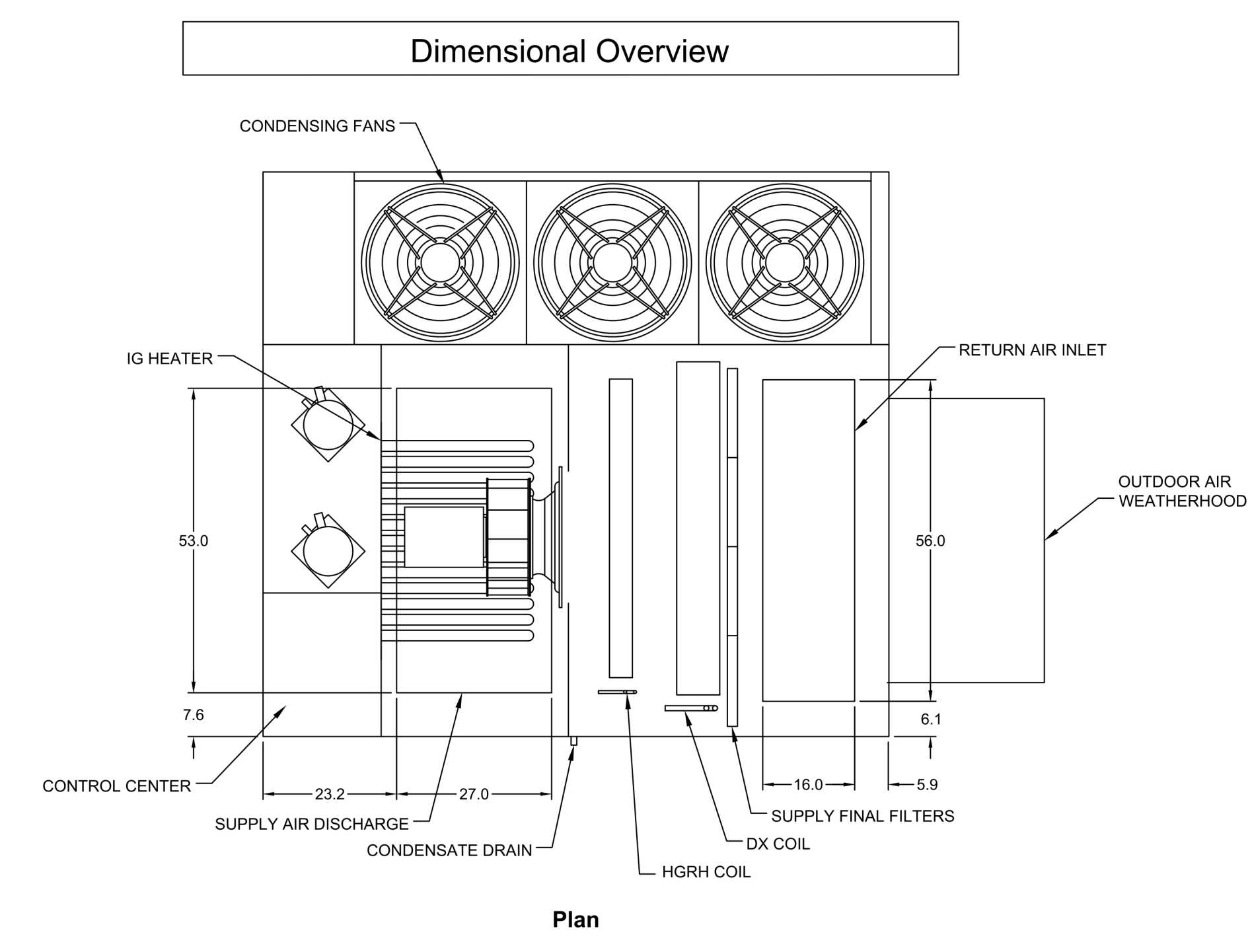


ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.05**

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PROJECT: 1/11/4/2022  
 FIREBIRDS - PLANO TX  
 ACCUREX CENTRAL CAROLINAS CHARLOTTE  
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 DOAS@GREENHECK.COM  
 (828)579-1123  
 J.L. NRE  
 DOAS1

**ACCUREX**



**Doas:  
Down Discharge  
Down Return**

CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023



01/09/2023

ACCUREX  
DRAWINGS -  
MECHANICAL

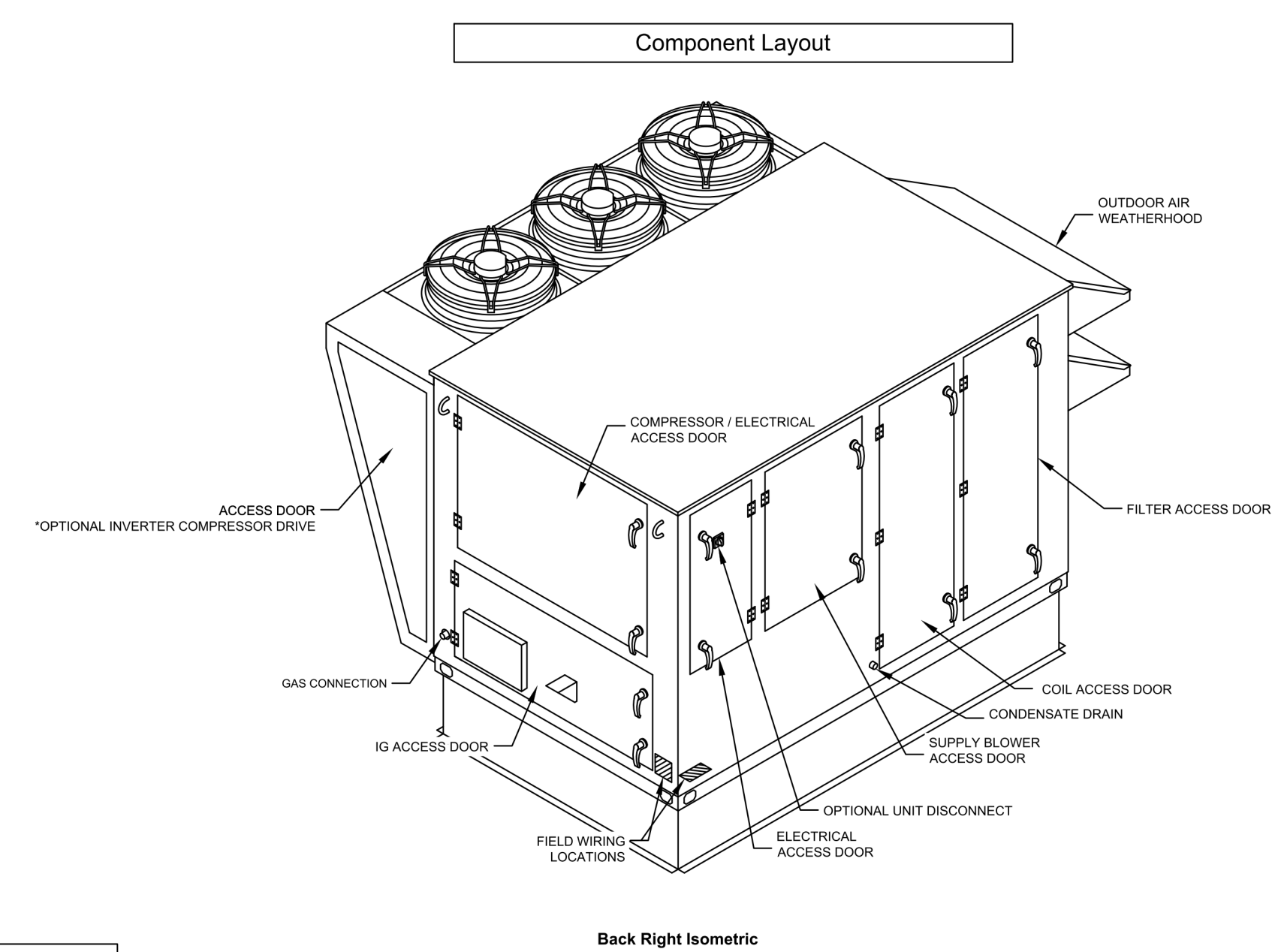
**M4.06**

EQUIPMENT SCHEDULE

Packaged Ventilator													
Mark Name	Qty	Model	Mounting Location	Weight	Electrical						Unit MOP		
DOAS2	1	XRV-45-301-M-A0	Outdoor	3,793 lb							175		
Supply Fan													
Outdoor Air Volume	Supply ESP	Supply TSP	FRPM	Supply BHP	Supply Motor	Voltage	Frequency	Phase	Unit MCA	Unit MOP			
5,930 CFM	0.5 in. wg	1.616 in. wg	1306	2.335	(1) 5 hp	208	60	3	141.1	175			
Cooling Section													
Coil Entering DB	Coil Entering WB	Coil Leaving DB	Coil Leaving WB	Nominal Tonnage	Total Capacity	Sensible Capacity	Coil Face Velocity	Coil Pressure Drop	Rows Deep	Fins per Inch	Compressor Type	Compressor Qty	AHRI 920 ISMRE
83.5 F	77.3 F	57.2 F	57.2 F	30.0	414.6 MBH	161.3 MBH	273 ft/min	0.327 in. wg	6	12	Inverter Scroll	2	5.0
Heating Section													
Gas Type	Input	Output	EAT	LAT	Furnace Control	Temp Rise	Hot Gas Reheat Capacity	LAT					
Natural	400.0 MBH	320.0 MBH	20.3 F	73.9 F	4-1 Modulating	53.6 F	138.1 MBH	80.3 F					

**NOTES**

Painted exterior with 2,000 yr. self-apply rating.  
Double wall 2" R-13 insulated foam insulated cabinet.  
Single condenser fan shall not exceed a sound power level of 75 LWA.  
Compressor mounted on a steel frame on a treated floor for increased stability and transmitted sound.  
Rain: Dampers - Matched Low Leakage  
Painted Exterior - Concrete Gray (RAL 7023)  
Multi-processor Control  
Supply Fan VFD Control - Constant Volume ASJ Setpoint  
Space Thermostat - 1 Temp and RH, 1 Additional Temp Only (avg)  
Remote Display w/75 Cool  
Phase and Brown Out Protection  
Break Circuit Fusing  
Unit Disconnect - Mounted By Factory  
Hot Gas Reheat  
Shipped Loose Smoke Detectors - Supply  
Unit Warranty - 18 Months Standard

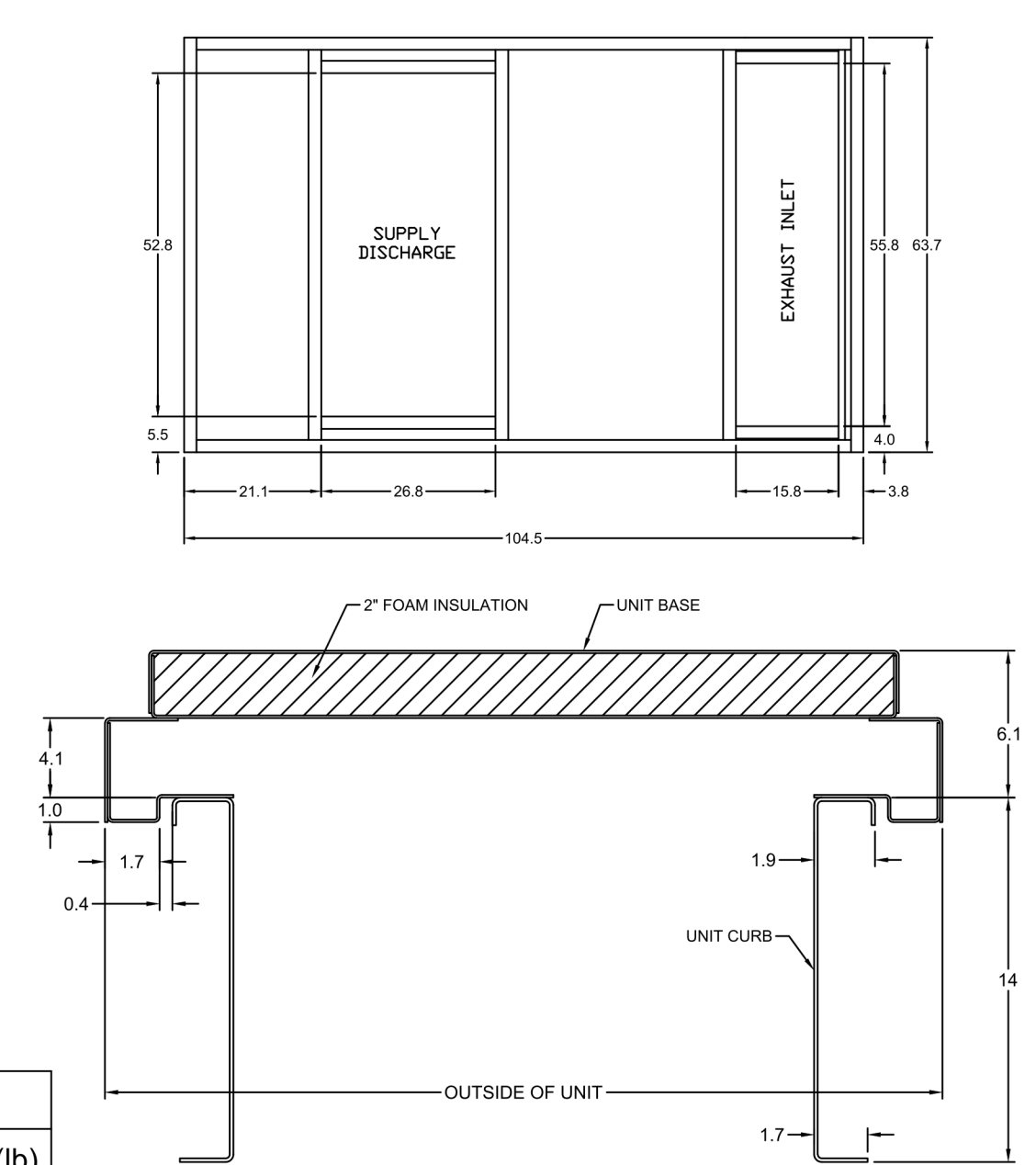


Doas:  
Down Discharge  
Down Return

**Curb Installation Instructions**

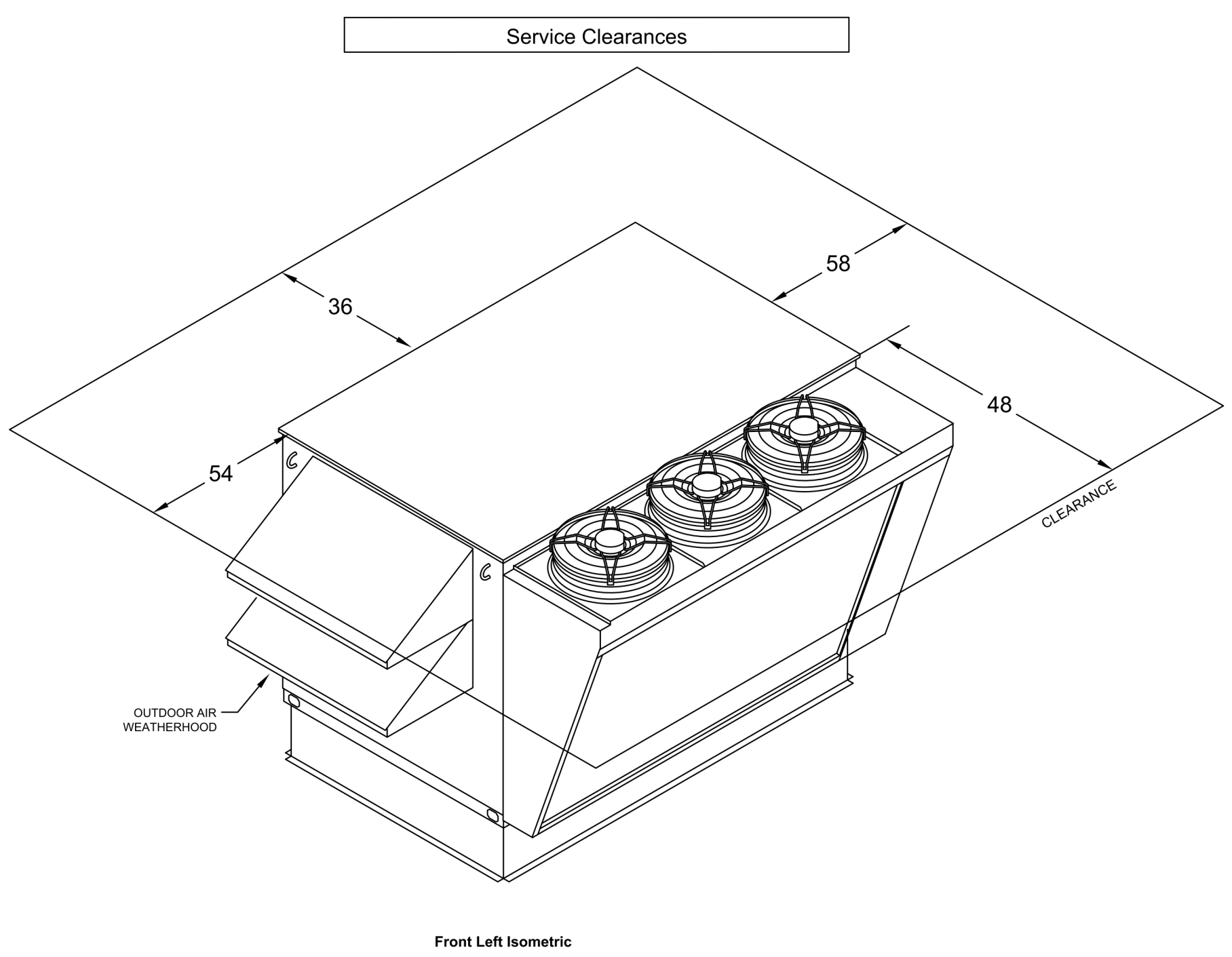
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3. Install ductwork. Installation of all ducts should be done in accordance with SMACNA and AMCA guidelines. Duct adapters are provided to support ducts prior to setting the unit.
4. Set the unit. Lift unit to a point directly above the curb and duct openings. Guide unit while lowering to align with duct openings. Roof curbs fit inside the unit base. Make sure the unit is properly seated on the curb and level.
5. Fasten the unit. Fasten the unit to the curb/equipment support(s) using the appropriate methods. The installer is responsible for determining appropriate support and fastening methods to ensure compliance with all applicable codes.
6. Install vestibule. If unit was ordered with a vestibule and it has not yet been attached to the unit, caulk and attach the vestibule at this time.

Curb Detail



**Curb Specifications**

Height (in)	Length (in)	Width (in)	Material	Finish Type	Duct Adapter	Weight (lb)
14	104.4	63.74	Galvanized	Galvanized	Yes	263



PROJECT: FIREBIRDS - PLANO TX  
 DATE: 11/14/2022  
 MARK: DOAS2  
 ACCUREX CENTRAL CAROLINAS CHARLOTTE  
 MARK BOWMAN  
 DOAS2@GREENHECK.COM  
 (828)579-1123  
**ACCUREX**

CD SET  
05/19/2022

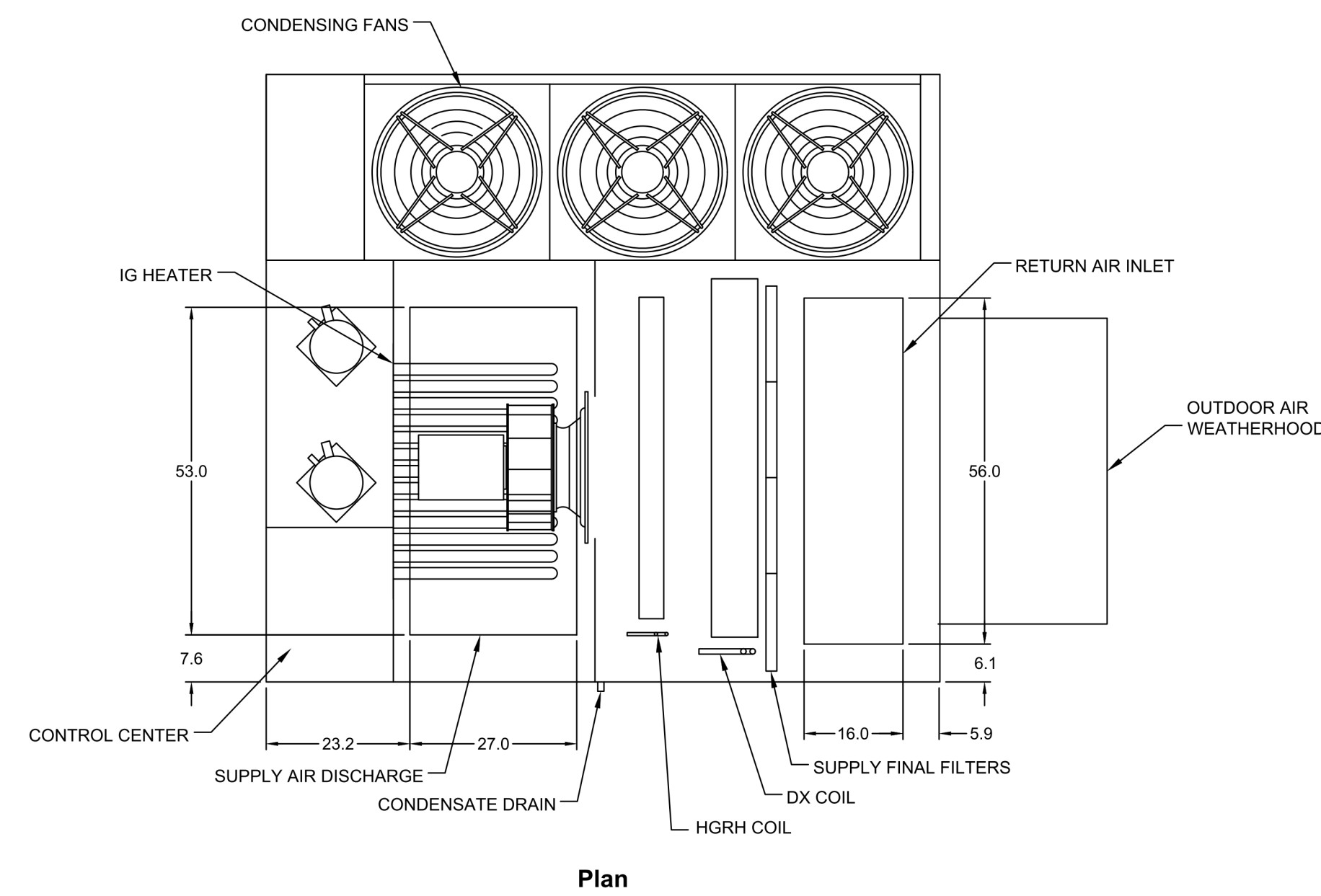
No.	Description	Date
3	Revision #3	01/09/2023



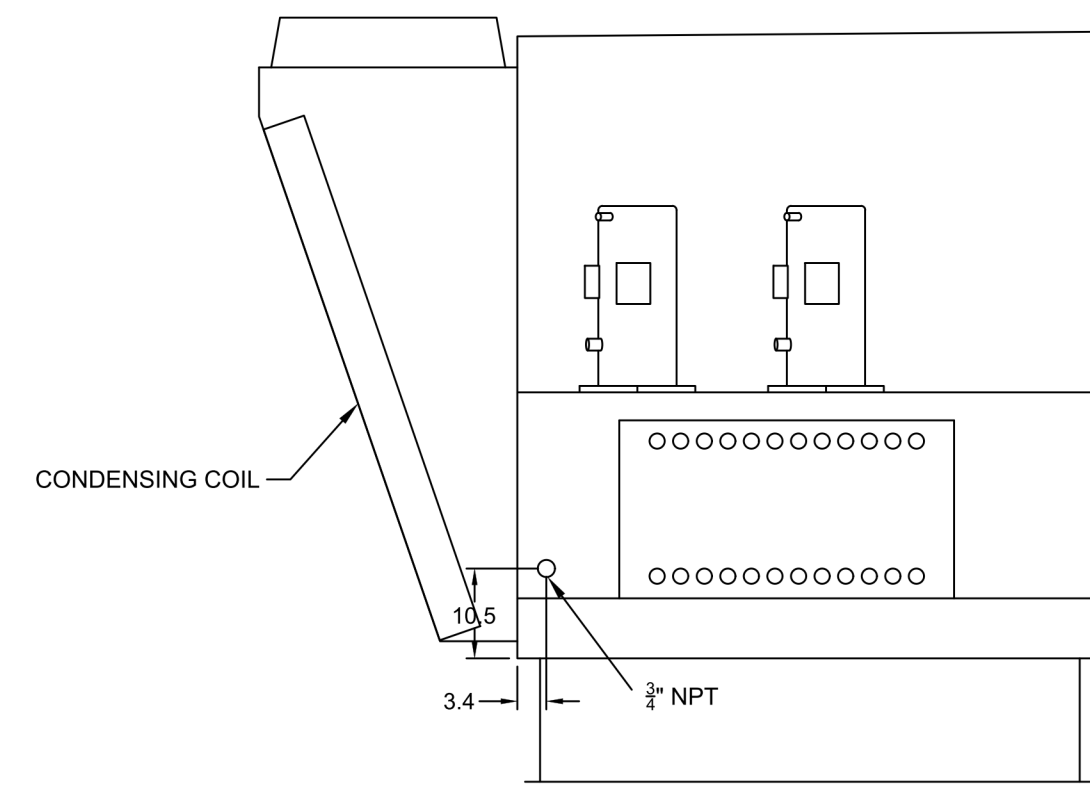
ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.07**  
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Doas:  
Down Discharge  
Down Return

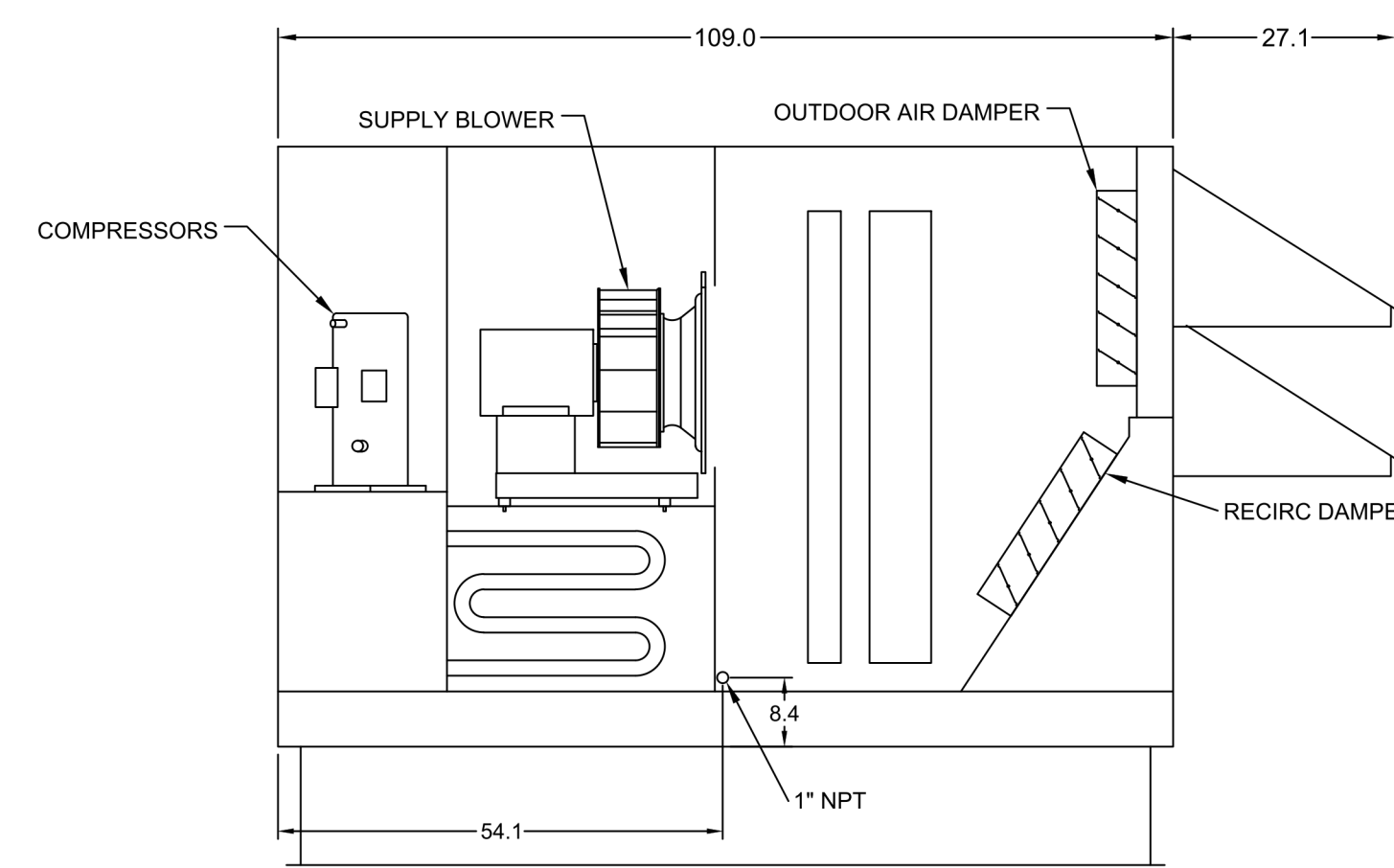
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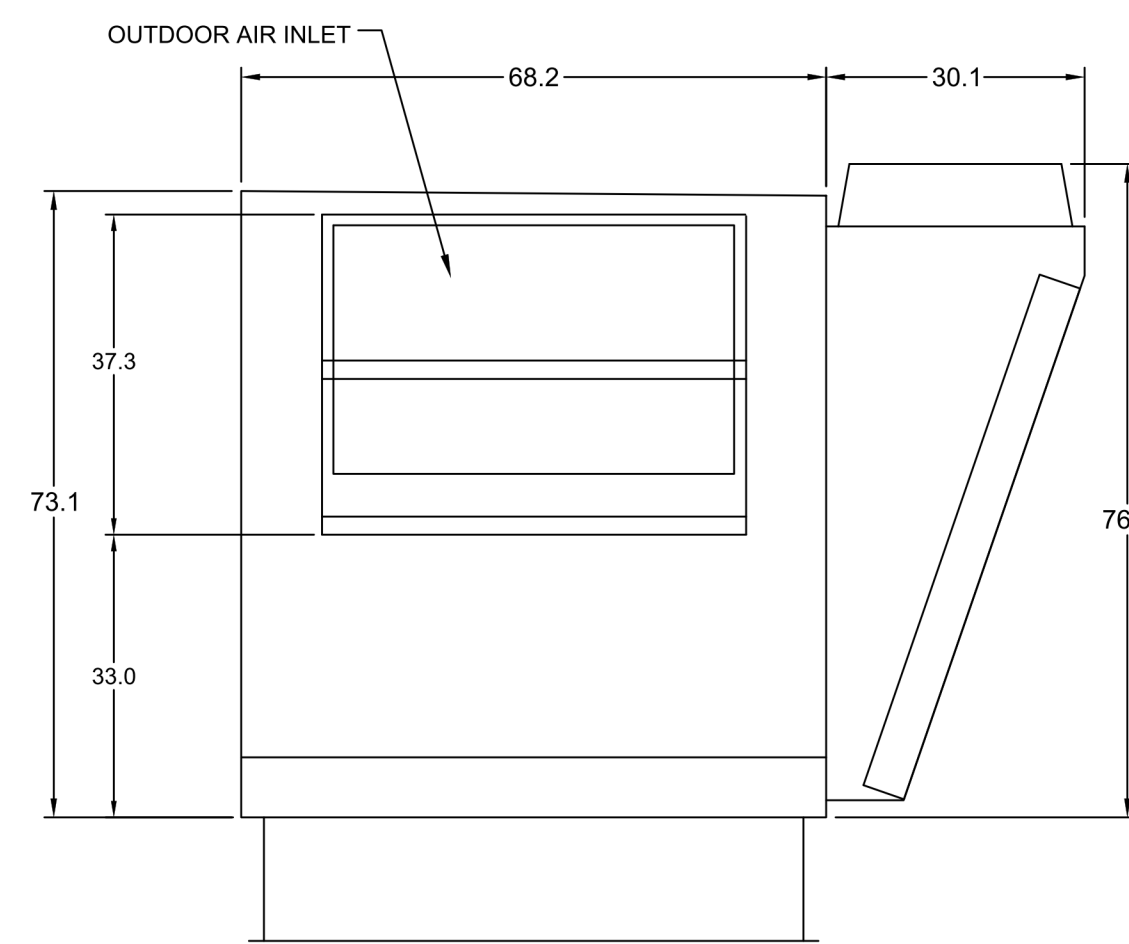
Plan



Left End



Elevation



Right End

PROJECT: FIREBIRDS - PLANO TX  
DATE: 11/14/2022  
MARK: MARK  
SCALE: J-L NSF  
JOB NO: DOASZ

ACCUREX CENTRAL CAROLINAS CHARLOTTE  
MARK BOWMAN  
DOAS@GREENHECK.COM  
(828)579-1123

**ACCUREX**

CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023



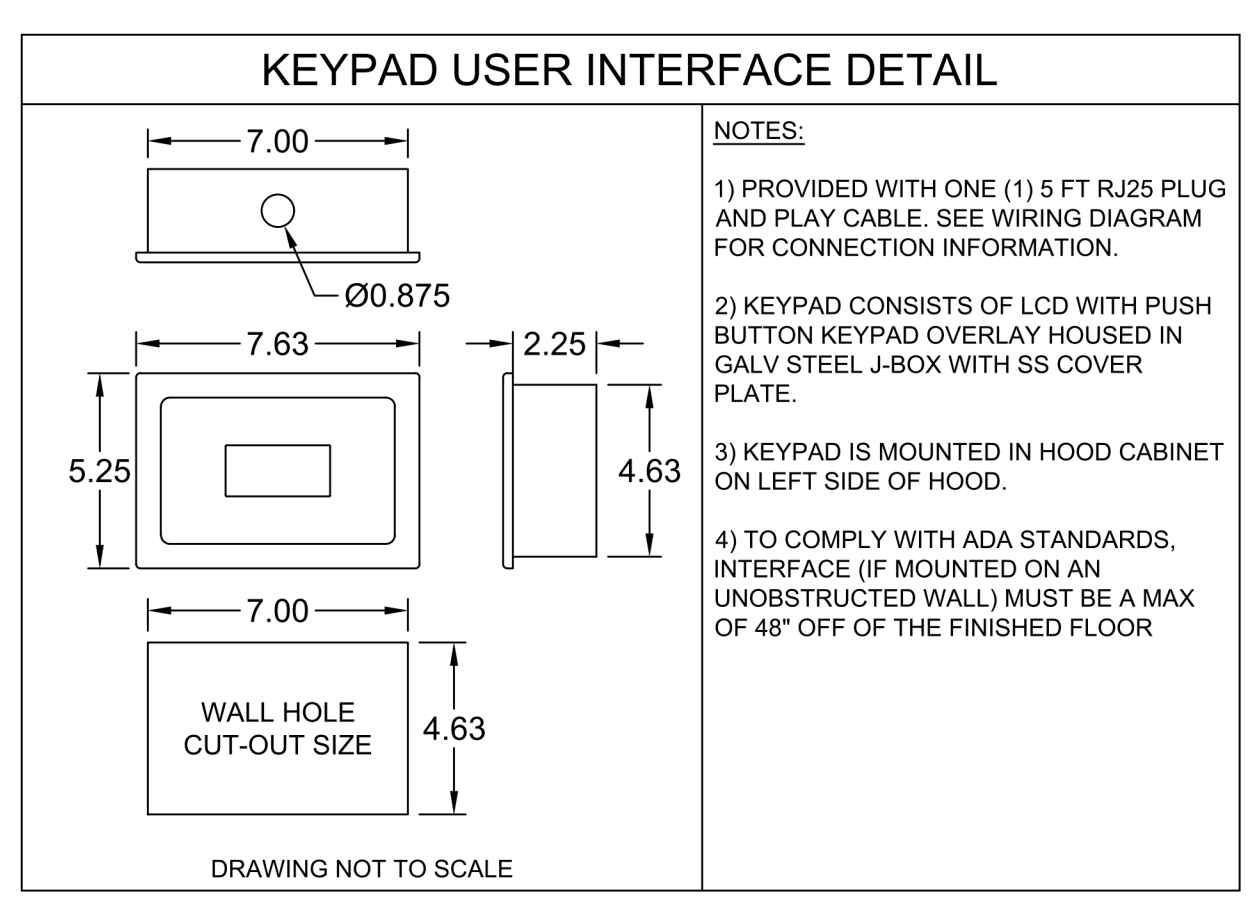
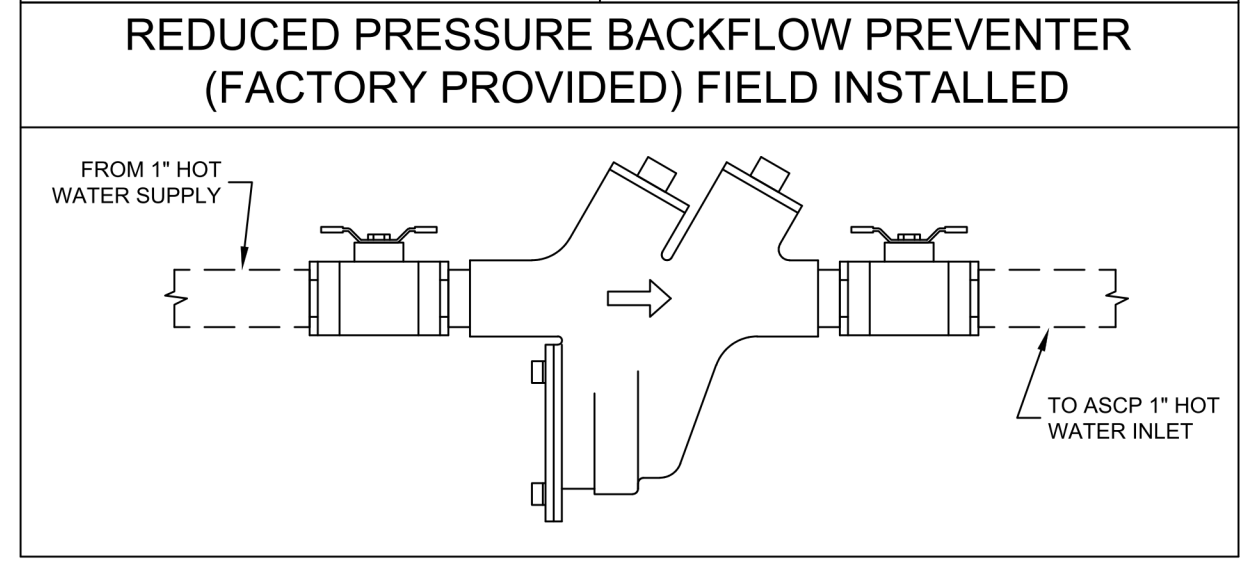
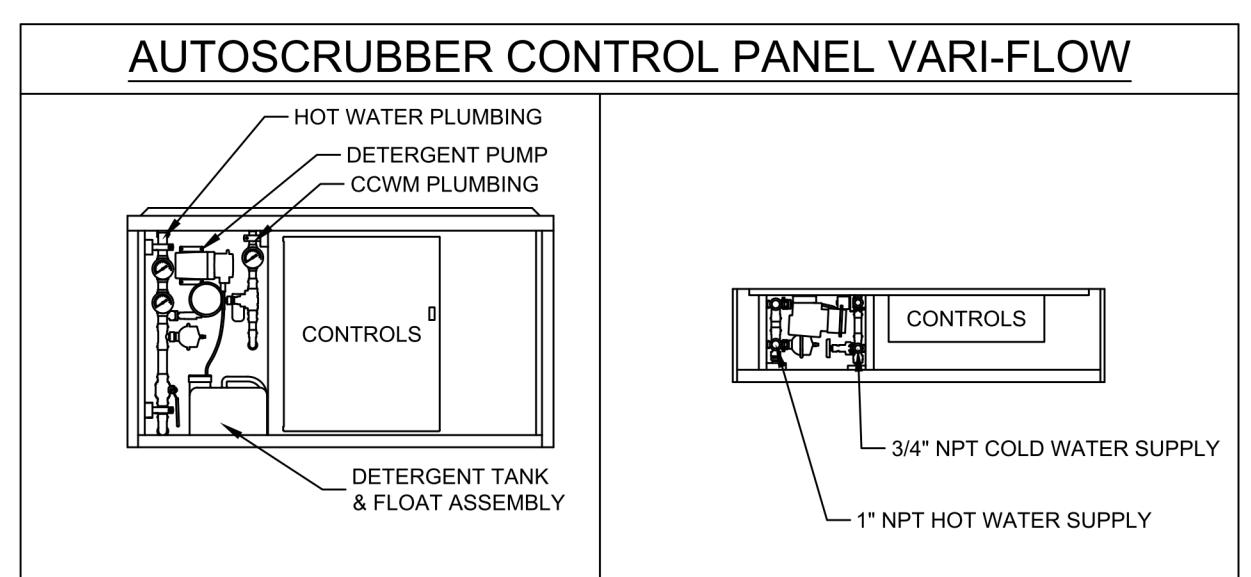
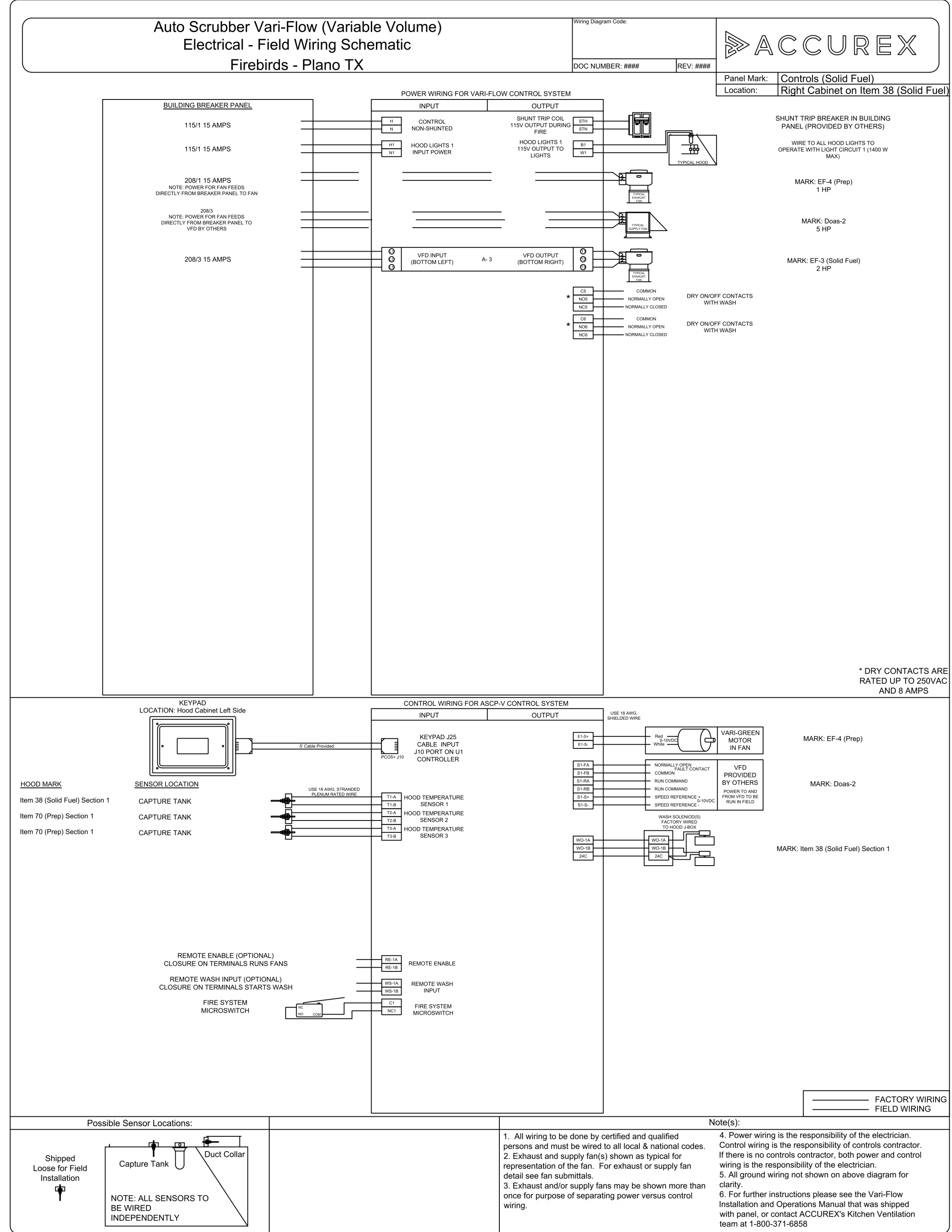
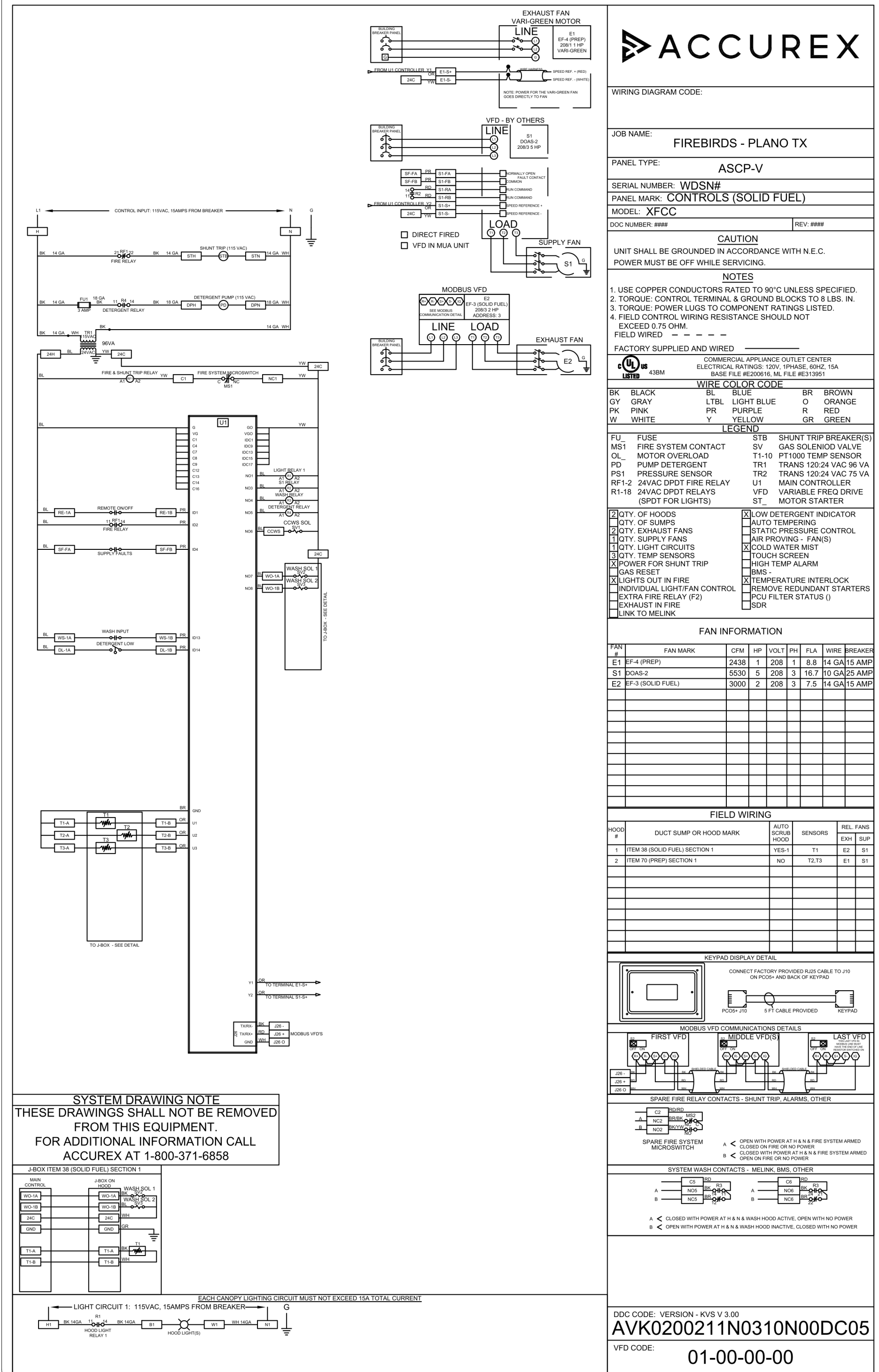
01/09/2023

ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.08**

CONTROL INFORMATION					FANS CONTROLLED				
MARK	ELECTRICAL CONTROL PACKAGE		USER INTERFACE		MARK	TYPE	VOLT	PHASE	HP
	MODEL	LOCATION	TYPE	LOCATION					
Controls (Solid Fuel)	ASCP-V	CABINET - right END OF Item 38	Keypad	CABINET - RIGHT END OF Item 38	EF-4 (Prep)	exhaust	208	1	1
					Doas-2	supply	208	3	5
					EF-3 (Solid Fuel)	exhaust	208	3	2

**CONTROL FEATURES**

- Lights Out In Fire
- Power For Shunt Trip
- Low Detergent Indicator
- Continuous Cold Water Spray



**ACCUREX**  
 PROJECT: 11/17/2022  
 FIREBIRDS - PLANO TX  
 CONTROLS (SOLID FUEL)  
 ACCUREX CENTRAL CAROLINAS & CHARLOTTE  
 MARK.GOWMAN@ACCUREX.COM  
 (828)979-1123  
 01/04/2023

CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023



ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.09**  
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CONTROL INFORMATION		ELECTRICAL CONTROL PACKAGE		USER INTERFACE		FANS CONTROLLED											
MARK	MODEL	LOCATION	TYPE	LOCATION		FAN #	TYPE	FAN	FAN MARK	ZONE	CFM	MOTOR HP	MOTOR VOLT	CYCLE	MOTOR PHASE	MOTOR STARTER IN PANEL	VFD IN PANEL
CONTROLS (COOKLINE)	XKC-DCV-S-21-2-1-0	RIGHT CABINET ON ITEM 33 (COOKLINE L, R)	FULL COLOR TOUCHSCREEN	CABINET - RIGHT CABINET ON ITEM 33 (COOKLINE L, R)		1	SUPPLY	S1	DOAS1	1	5170	5	208	60	3	NO	NO
						2	EXHAUST	E1	EF-1 (COOKLINE LEFT)	1	2350	1	208	60	1	NO	NO
						3	EXHAUST	E2	EF-2 (COOKLINE RIGHT)	1	2820	2	208	60	1	NO	NO

**CONTROL FEATURES**  
HOOD LIGHT CONTROL  
TEMP SENSORS (FACTORY INSTALLED) - QTY. 2  
DRY FIRE CONTACTS - QTY. 1  
LIGHTS OFF DURING FIRE  
EXHAUST MAX DURING FIRE  
SUPPLY OFF DURING FIRE  
HIGH TEMPERATURE ALARM



DOC NUMBER: #### REV: ####

**CAUTION**  
UNIT MUST BE GROUNDED IN ACCORDANCE WITH N.E.C. POWER MUST BE OFF WHILE SERVICING.

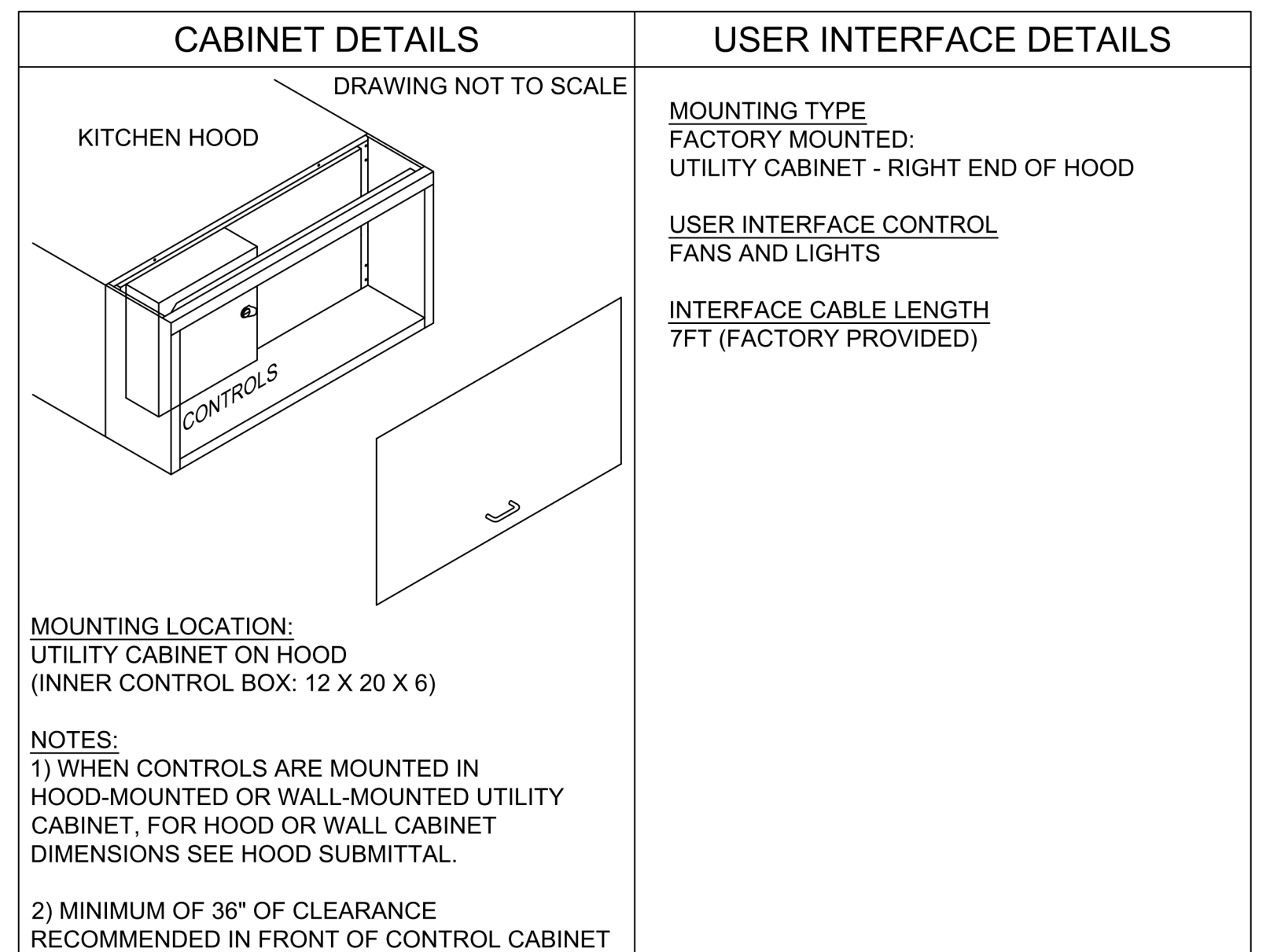
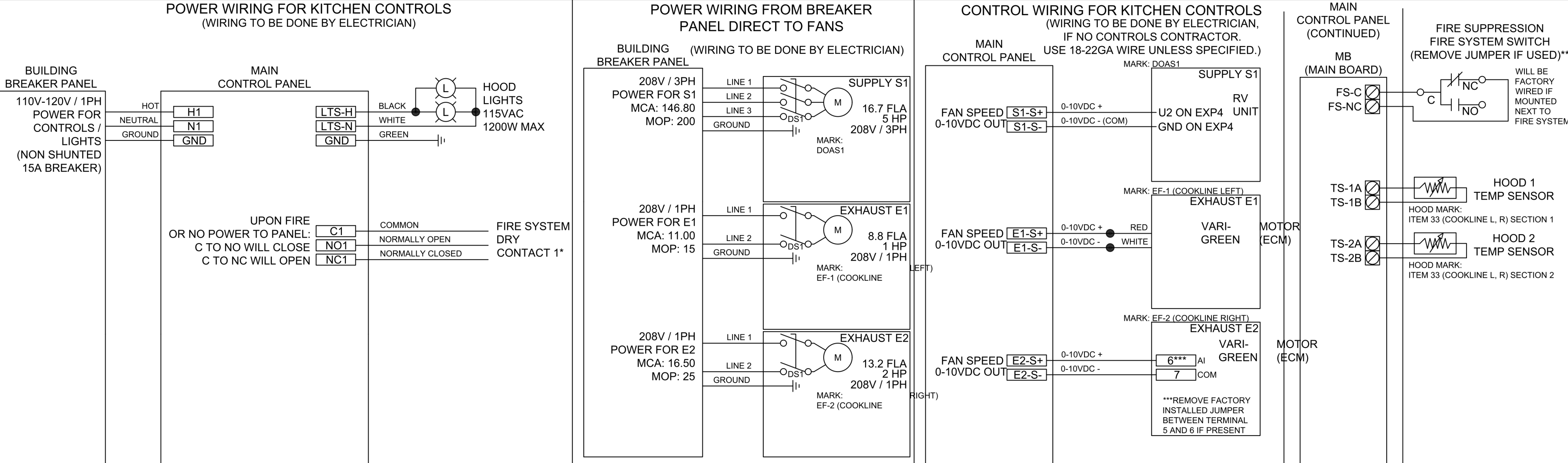
**ATTENTION**  
L'APPRIETER DOIT ÊTRE MIS À LA TERRE CONFORMÉMENT AU CODE C.E. L'ALIMENTATION DOIT ÊTRE COUPÉE DURANT L'ENTRETIEN.

COMMERCIAL APPLIANCE OUTLET CENTER  
ELECTRICAL RATINGS: 110-240V, 1PHASE, 50-60HZ, 15A  
BASE FILE #E200816, ML FILE #E313951

THESE DRAWINGS SHALL NOT BE REMOVED FROM THIS EQUIPMENT. USE COPPER CONDUCTORS RATED TO 90°C UNLESS SPECIFIED. TORQUE CONTROLS & GROUND BOLTS TO 1/8" TORQUE POWER LOGS/SCREWS TO COMPONENT RATINGS LISTED. TORQUE CONTROL BOARD SCREWS TERMINALS TO 3.5 LB. IN. FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM. SEE IFCM FOR ADDITIONAL INFORMATION. OR CALL FACTORY #41-880-374989.

NE PAS RETIRER CES DESSINS DE CET ÉQUIPEMENT SAUF INDICATION CONTRAIRE. UTILISER DES CONDUCTEURS EN CUivre CLASSEÉS DE 90 °C. SERRER LES BORNES DE COMMANDE ET DE MISE À LA TERRE À 8 LB.FO. SERRER LES COSSÉS/SCREWS D'ALIMENTATION AUX COUPES INDICUÉS POUR LE COMPOSANT. SERRER LES BORNES À VIS DE LA CARTE DE COMMANDE À 3.5 LB.FO. LA RÉSISTANCE DU CÂBLAGE DE COMMANDE LOCAL NE DOIT PAS DÉPASSER 0.75 OHM. POUR PLUS D'INFORMATION, CONSULTER LE MANUEL OU APPELER 1-800-371-6959.

WIRING DIAGRAM CODE: ####  
JOB NAME: FIREBIRDS - PLANO TX  
MODEL: XKC-DCV-S-21-2-1-0  
SERIAL NUMBER: WDSN#  
MARK: CONTROLS (COOKLINE)



ZONE CONFIGURATION										WIRING DIAGRAM CODE: ####		
ZONE #	ZONE	ROOM TEMP								JOB NAME:	FIREBIRDS - PLANO TX	
1	Z1	PRESET								MODEL:	XKC-DCV-S-21-2-1-0	
										SERIAL NUMBER:	WDSN#	
										MARK:	CONTROLS (COOKLINE)	
										DOC NUMBER: ####	REV: ####	
										DEFAULT SETTINGS / PARAMÈTRES PAR DÉFAUT		
										FACTORY SETTINGS		
										TYPE: VAV		
										CONFIGURATION: STANDARD		
										ZONES: 1		
										HOODS: 2		
										SUPPLY: 0		
										EXHAUST FANS: 2		
										MB TEMP SENSORS: 2		
										MB ROOM SENSOR: NO		
										FREEZE PROTECTION: YES		
										HIGH TEMP FAULT: YES		
										GAS RESET: NO		
										FAN PROVING: NO		
										BMS: NONE		
										ZONE SETTINGS		
										SEE ZONE CONFIGURATION IN TABLE ON LEFT		
										HOOD SETTINGS		
										SEE HOOD CONFIGURATION IN TABLE ON LEFT		
										EXHAUST FAN SETTINGS		
										SEE FAN CONFIGURATION IN TABLE ON LEFT		
										SUPPLY FAN SETTINGS		
										SEE FAN CONFIGURATION IN TABLE ON LEFT		
										SENSOR SETTINGS		
										SEE HOOD CONFIGURATION IN TABLE ON LEFT		
										USER INTERFACE SETTINGS (MB)		
										FAN & LIGHT BUTTONS: SHOW BOTH (SEPARATE)		
										USER INTERFACE SETTINGS (HCB)		
										NA		
										GENERAL SETTINGS		
										TIME ZONE: CENTRAL DAYLIGHT (DEFAULT)		
										FIRE/FAULT SETTINGS		
										EXHAUST DURING FIRE: MAX		
										SUPPLY DURING FIRE: OFF		
										LIGHTS DURING FIRE: OFF		
										BMS SETTINGS		
										NA		
										PRG VERSION: V4		
FAN CONFIGURATION												
FAN #	TYPE	FAN	FAN MARK	ZONE	MIN CFM	MAX CFM	MODBUS VFD	VFD ADDRESS	MIN FREQ	MAX FREQ	MIN VDC	MAX VDC
1	SUPPLY	S1	DOAS1	Z1	2985	5170	NO	-	-	-	5.0	10.0
2	EXHAUST	E1	EF-1 (COOKLINE LEFT)	Z1	1175	2350	NO	-	-	-	5.0	10.0
3	EXHAUST	E2	EF-2 (COOKLINE RIGHT)	Z1	1410	2820	NO	-	-	-	5.0	10.0



PROJECT: 11/17/2022  
 FIREBIRDS - PLANO TX  
 MARK: CONTROLS (COOKLINE)  
 ACCUREX CENTRAL CAROLINAS & CHARLOTTE  
 MARK.BOWMAN@ACCUREX.COM  
 (828)979-1123  
**ACCUREX**

CD SET  
05/19/2022

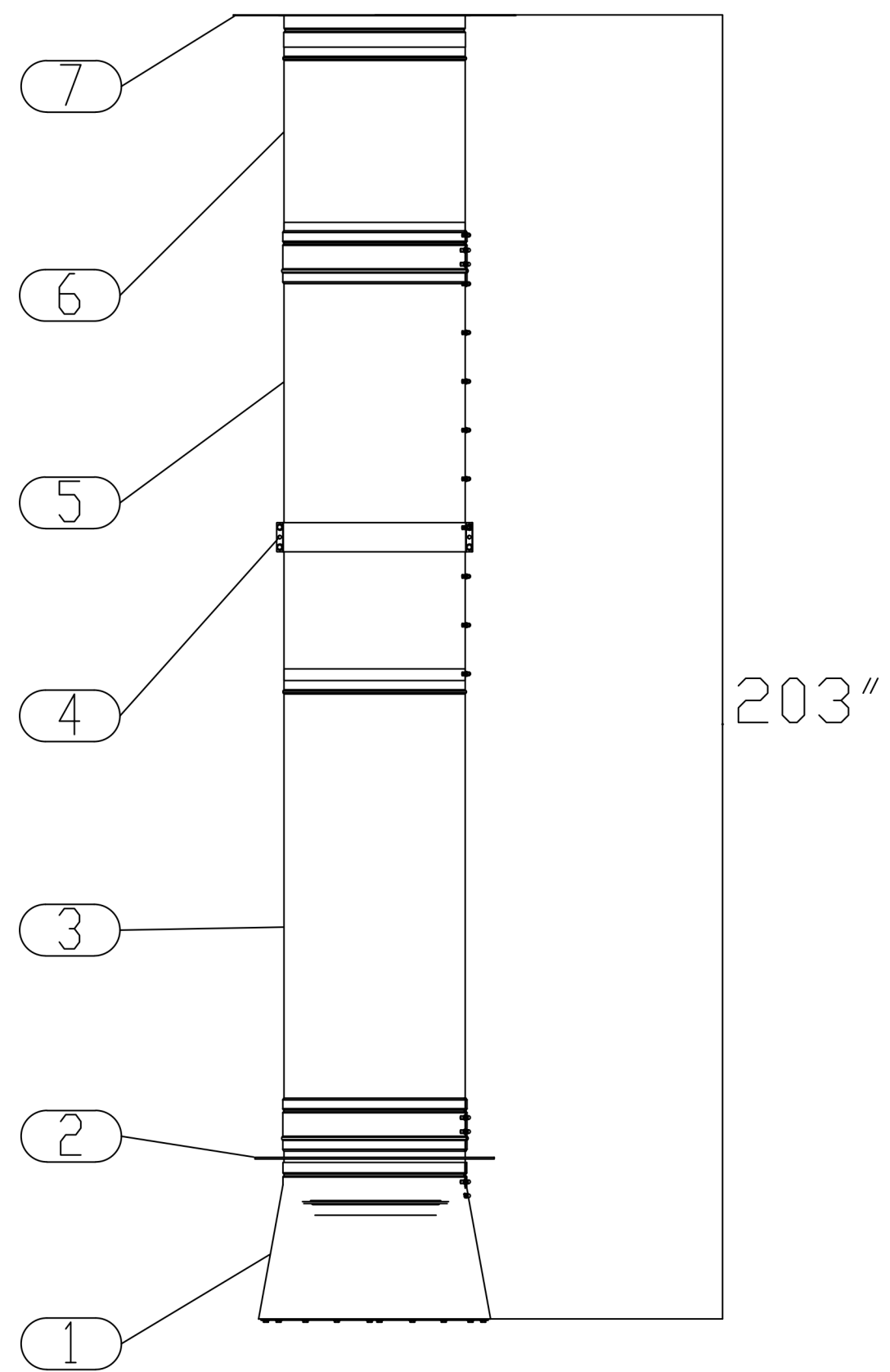
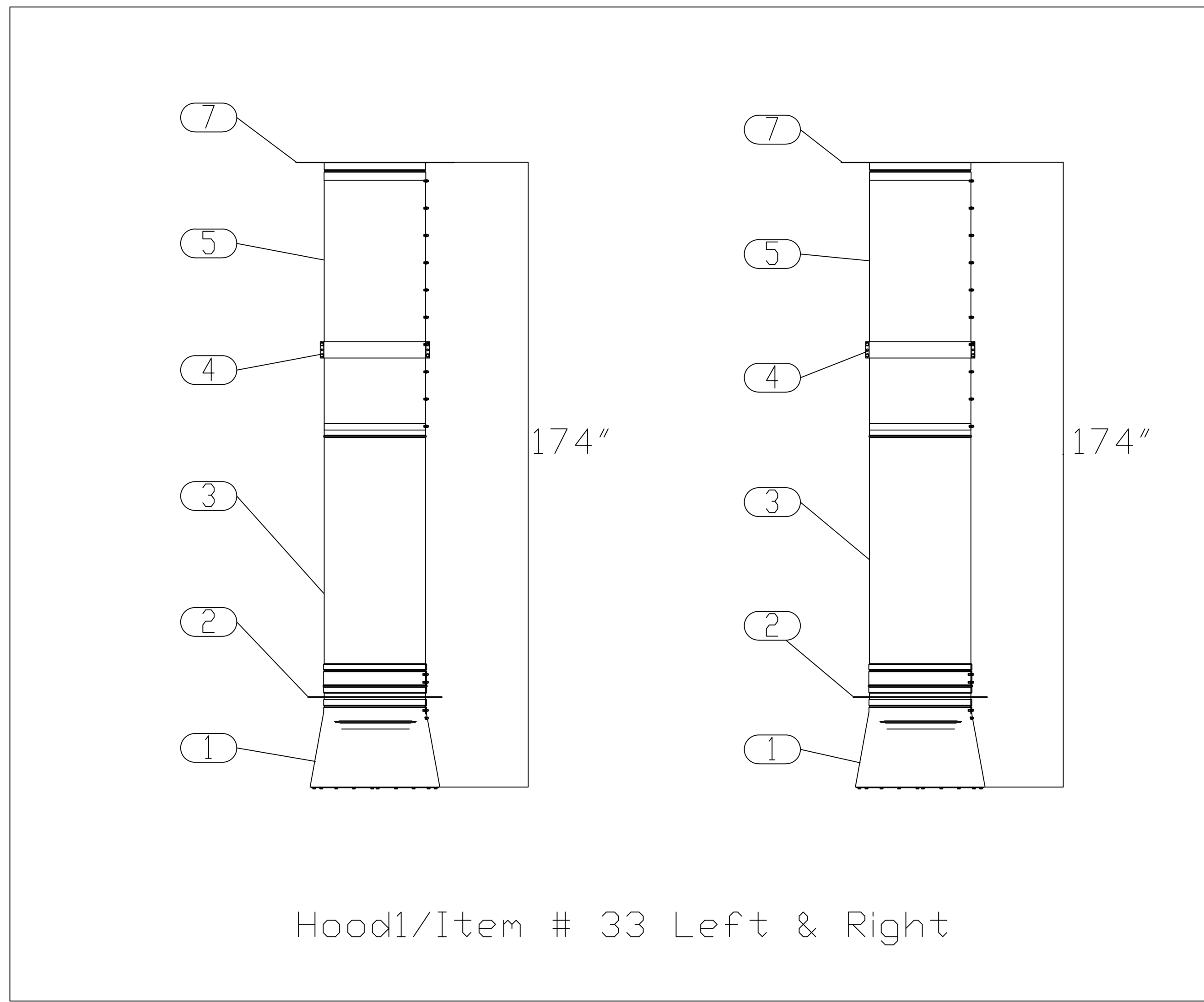
No.	Description	Date
3	Revision #3	01/09/2023



01/09/2023

ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.10**  
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ITEM NO.	PART NUMBER	Description	QTY.
1	DWCK16-NWHD	No Weld Hood Adapter	3
2	DWCK16-APS+1	Anchor Plate Support	3
3	DWCK16-48L+1	48" Fixed Length	3
4	DWCK16-LSB+1	Light Support Band	3
5	DWCK16-48CL+1	48in Cut Pipe Length	3
6	DWCK16-24L+1	24" Fixed Length	1
7	DWCK16-FPE+1	Fan Plate Adapter End	3



LEAKAGE TESTS ARE NOT REQUIRED  
BY JEREMIAS OR THE LISTING  
CERTIFICATION. IF REQUIRED BY  
LOCAL CODE, CONTACT JEREMIAS  
FOR PROPER LEAK TEST METHODS

GENERAL NOTES:  
1. WHEN INSTALLING FOLLOW ALL APPLIANCE MANUFACTURER  
AND JEREMIAS INC. INSTALLATION INSTRUCTIONS, AS WELL AS ANY  
LOCAL OR NATIONAL CODES.  
2. INSTALLER IS TO FIELD VERIFY ALL DIMENSIONS AND PARTS  
BEFORE RELEASING THIS DRAWING FOR PRODUCTION.  
3. ALL DRAIN LINES AND SUPPORTS BACK TO THE BUILDING ARE  
SUPPLIED BY THE INSTALLING CONTRACTOR.  
4. JEREMIAS INC. DISCLAIMS ANY RESPONSIBILITY FOR ANY  
BUILDING INTERFERENCE NOT REFERENCED ON THIS DRAWING.

WARRANTY STATEMENT:  
VENT/CHIMNEY/STACK HAS BEEN SIZED BY OTHERS. TO QUALIFY  
FOR OUR 25-YEAR EXTENDED WARRANTY, PROVIDE COMBUSTION  
INFORMATION TO JEREMIAS TO CONFIRM SIZING.

APPLIANCE MANUFACTURER / MODEL NO: N/A  
OPERATING FLUE GAS TEMPERATURE: N/A  
UL INSTRUCTIONS USED FOR DESIGN: CK  
UL LABEL USED FOR PRODUCT: 1978  
SEALANT FOR JOINTS: (6) J-600

MATERIAL:  
JEREMIAS INC. DWCK+1  
UL AND cUL LISTED  
STAINLESS STEEL INNER  
1.25" THICK FIBER INSULATION  
STAINLESS STEEL OUTER JACKET  
STAINLESS STEEL USED FOR ALL ACCESSORIES

inch / lb		<b>Jeremias</b> EXHAUST SYSTEMS	Scale: 1:30
ORG			Format: US LEDGER
drawn by	11/15/2022	JJ Thompson	Sheet: 1 of 1
checked by	11/15/2022	V Prado	
approved by			
modified by			
drawing no			
Customer: ACC		Project: 44703	

CD SET  
05/19/2022

No.	Description	Date
3	Revision #3	01/09/2023



01/09/2023

ACCUREX  
DRAWINGS -  
MECHANICAL  
**M4.11**  
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