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WAWA
STORE NUMBER: 6106
DUCT
LUMBERTON, NC 28358
JOB NUMBER: 42-23-80010

ISSUE BLOCK

1	REV 1	07/26/23
2	REV 2	11/03/23
3	REV 3	05/22/24

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DRAWN BY: SGB
DOCUMENT DATE: 05/22/24
PROTO: U59FB-R
PROTO CYCLE: 2023.02.G3
PLAN ISSUE: CONSTRUCTION SET



2024.05.22 14:36:48-0500
HARRISON FRENCH & ASSOCIATES, PLLC
COA #P-0402

HVAC FLOOR PLAN

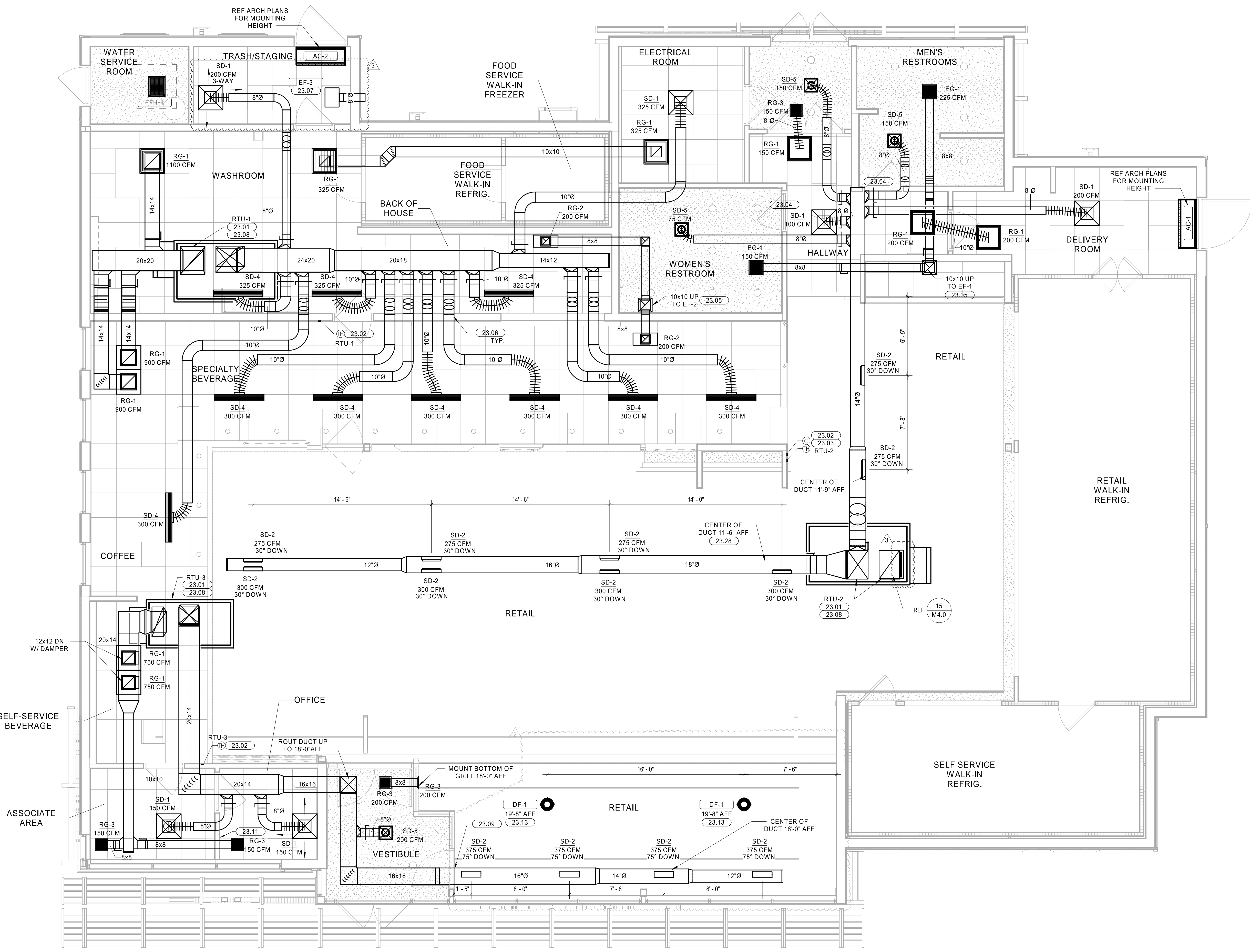
SHEET: M1.0

KEYNOTES

- 23.01 SUPPLY AND RETURN DUCT UP TO RTU ON ROOF. TRANSITION AS REQUIRED. FIELD VERIFY DUCT ROUTING PRIOR TO FABRICATION. PROVIDE FLEX CONNECTION FOR VIBRATION ISOLATION.
- 23.02 MOUNT REMOTE TEMPERATURE/HUMIDITY SENSOR IN AREA SHOWN AT 8" AFF. COORDINATE EXACT LOCATION WITH TENANT CONSTRUCTION MANAGER. THE ENTIRE CONTROL SYSTEM SHALL BE PROVIDED COMPLETE IN EVERY RESPECT BY THE MECHANICAL CONTRACTOR.
- 23.03 WALL MOUNTED CO2 SENSOR TO RTU-2. SENSOR TO MONITOR CO2 LEVELS THROUGH REMOTE BAS. SENSOR BY WAWA BAS VENDOR.
- 23.04 UNDERCUT DOOR 1" FOR AIR PASSAGE.
- 23.05 EXHAUST DUCT ROUTED TO FAN ON ROOF. COORDINATE ROUTING OF DUCT WITH ALL DISCIPLINES. PROVIDE TRANSITIONS AND FITTINGS AS REQUIRED.
- 23.06 DUCT ROUTED BETWEEN STRUCTURAL ELEMENTS. COORDINATE SIZE OF DUCT AND EXACT ROUTING WITH STRUCTURAL ELEMENTS AND OTHER TRADES PRIOR TO CONSTRUCTION. ADJUST SIZE AS REQUIRED. PROVIDE ADDITIONAL FITTINGS AND TRANSITIONS AS REQUIRED.
- 23.07 PROVIDE A CABINET STYLE EXHAUST FAN. EXHAUST DUCT SHALL BE GALVANIZED STEEL. PROVIDE SIDEWALL VENT WITH SCREEN AND FLAPPER DAMPER. CROWN MODEL 349 OR EQUAL. EXHAUST FAN SHALL MAINTAIN 10" CLEARANCE FOR ANY OUTSIDE AIR INTAKE. MUST MEET LOCAL CODE REQUIREMENTS. FIELD VERIFY ALL ROUTING AND REQUIREMENTS PRIOR TO BID. SEAL ALL PENETRATION WEATHER TIGHT. PRE-PAINT VENT COVER TO MATCH SIDING.
- 23.08 HVAC UNIT MANUFACTURER TO PROVIDE 120V SMOKE DETECTORS FOR SUPPLY AND RETURN WITH AUXILIARY CONTACTS AS SHOWN. UPON ACTIVATION, THE SMOKE DETECTORS SHALL SHUT DOWN THE AIR DISTRIBUTION SYSTEM TO WHICH IT IS CONNECTED AND ACTIVATE A VISIBLE AND AUDIBLE SUPERVISORY SIGNAL AT A CONSTANTLY ATTENDED LOCATION VIA THE SPRINKLER/FIRE ALARM PANEL. SMOKE DETECTORS SHALL ALSO BE FURNISHED WITH WALL MOUNTED REMOTE TEST STATION WITH KEYS RESET. REMOTE SD TEST SUPERVISORY SIGNAL SHALL BE LED TYPE WITH AUDIBLE BEEPING ALERT.
- 23.09 PROVIDE MCGILL AIRFLOW'S DOUBLE-WALL INSULATED SPIRAL DUCT OR EQUAL (MCGILL 614/829-1200). REFERENCE DRAWINGS FOR MOUNTING HEIGHT. PROVIDE DUCT AND FITTINGS WITH SLIP JOINT CONNECTION TYPE. FLANGE-TO-FLANGE CONNECTION TYPES ARE NOT ALLOWED.
- 23.11 PROVIDE REMOTE TEST STATION FOR SMOKE DETECTORS WITH AUDIBLE AND VISUAL ALARM WITH KEYS RESET. MOUNT TEST STATION 48 INCHES AFF. MOUNT AUDIBLE AND VISUAL ALARM IN CONSTANTLY ATTENDED LOCATION. CONSTANTLY ATTENDED LOCATION IS NOT REQUIRED WHERE DUCT SMOKE DETECTOR ACTIVATES THE BUILDING'S ALARM SYSTEM.
- 23.13 FAN MOUNTED AT HEIGHT SHOWN ON PLAN. REFER TO SCHEDULE FOR ADDITIONAL INFORMATION.
- 23.28 ROUTE DUCTWORK AS HIGH AS POSSIBLE PARALLEL TO STRUCTURE. REF 2-M1.0 TYP.

HVAC LEGEND

SYMBOL	DESCRIPTION
	NEW RECTANGULAR OR ROUND DUCT
	FLEXIBLE DUCT
	SUPPLY AIR DUCTWORK UP THROUGH PLAN
	RETURN AIR DUCTWORK UP THROUGH PLAN
	EXHAUST AIR DUCTWORK UP THROUGH PLAN
	90° ELBOW WITH TURNING VANES
	MANUAL AIR VOLUME CONTROL DAMPER
	4 WAY SUPPLY DIFFUSER
	3 WAY SUPPLY DIFFUSER
	2 WAY OPPOSED SUPPLY DIFFUSER
	2 WAY CORNER SUPPLY DIFFUSER
	RETURN AIR DEVICE
	EXHAUST AIR DEVICE
	AIR CURTAIN
	LINEAR SLOT DIFFUSER WITH PLENUM
	COMBINATION TEMPERATURE/HUMIDITY SENSOR
	TEMPERATURE SENSOR
	CO2 SENSOR
	TYPE MARK
	CFM
	MECHANICAL EQUIPMENT TAG
	CONDENSATE PIPING
	ROOF MOUNTED EXHAUST FAN
	INLINE EXHAUST FAN
	PACKAGED ROOFTOP AIR CONDITIONER



1 HVAC FLOOR PLAN
1/4" = 1'-0"

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STIPULATION FOR REUSE
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WAWA
 STORE NUMBER: 6106
 LUMBERTON, NC 28358
 JOB NUMBER: 42-23-60010

ISSUE BLOCK		
2	REV 2	11/03/23
3	REV 3	05/22/24

CHECKED BY: MJS
 DRAWN BY: SGB
 DOCUMENT DATE: 05/22/24
 PROTO: U59FB-R
 PROTO CYCLE: 2023.Q2.G3
 PLAN ISSUE: CONSTRUCTION SET

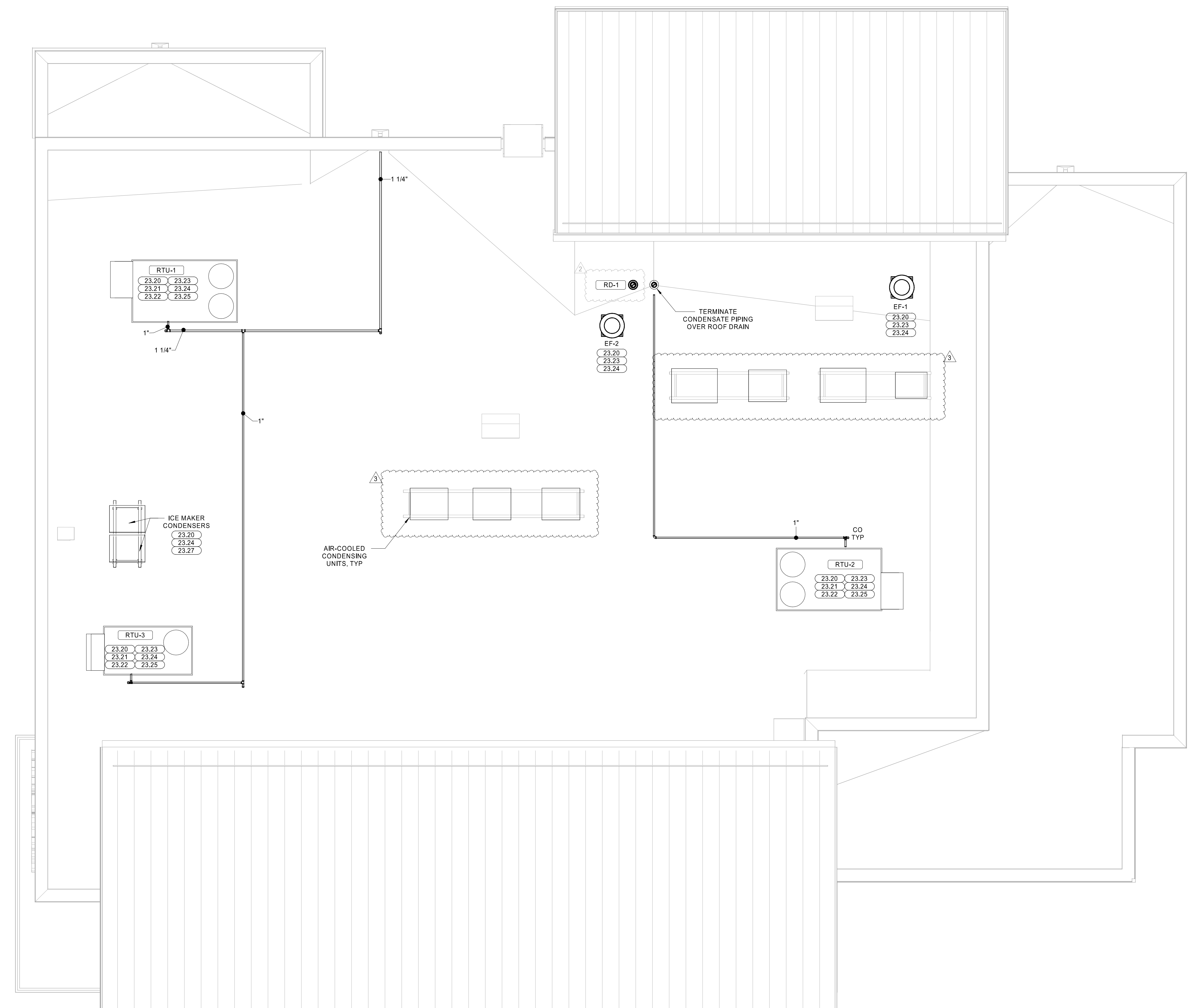


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 & ASSOCIATES, PLLC
 COA #P-0402

HVAC ROOF PLAN

SHEET: **M2.0**

KEYNOTES	
23.20	CONTRACTOR SHALL REVIEW ELECTRICAL POWER REQUIREMENTS FOR MECHANICAL EQUIPMENT THAT ARE SCHEDULED ON THE ELECTRICAL DRAWINGS AND VERIFY THAT THEY MATCH PRIOR TO ORDERING EQUIPMENT. DO NOT PURCHASE MOTORS OR ELECTRICAL EQUIPMENT UNTIL POWER CHARACTERISTICS AVAILABLE AT BUILDING HAVE BEEN CONFIRMED BY CONTRACTOR.
23.21	CONTRACTOR TO INSTALL OWNER-SUPPLIED ROOFTOP UNIT WITH PRE-FABRICATED MINIMUM 18 INCH HIGH INSULATED ROOF CURB. MAINTAIN MINIMUM HEIGHT OF 8" FROM ROOF SURFACE. TIE DOWN TO CURB USING LENNOX ROOF CLIPS APPROVED FOR LOCAL WIND ZONE. FIELD COORDINATE SIZE WITH MANUFACTURER REQUIREMENTS PRIOR TO BID.
23.22	MECHANICAL TO ENSURE RTU HAS PAN SENSOR (OVERFLOW SWITCH) INSIDE ROOFTOP UNIT DRAIN PAN. THIS DEVICE SHALL SHUT OFF THE EQUIPMENT SERVED IN THE EVENT THAT THE PRIMARY DRAIN BECOMES RESTRICTED.
23.23	COORDINATE ROOFTOP EQUIPMENT LOCATION AND OPENING IN THE ROOF WITH THE STRUCTURAL MEMBERS PRIOR TO CUTTING DECK.
23.24	INSTALLATION OF EQUIPMENT SHALL COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION AND CLEARANCE REQUIREMENTS TO ALLOW FOR INSPECTION, SERVICE, REPAIR OR REPLACEMENT.
23.25	CONDENSATE PIPING IS LOCATED ON ROOF. PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE SUPPORTS EVERY 4'. ROUTE TO NEAREST ROOF DRAIN/SCUPPER.
23.27	AIR-COOLED CONDENSING UNITS ON PRE-ENGINEERED EQUIPMENT RACK, REF. S4M.I.D.



1 ROOF PLAN MECHANICAL
 1/4" = 1'-0"

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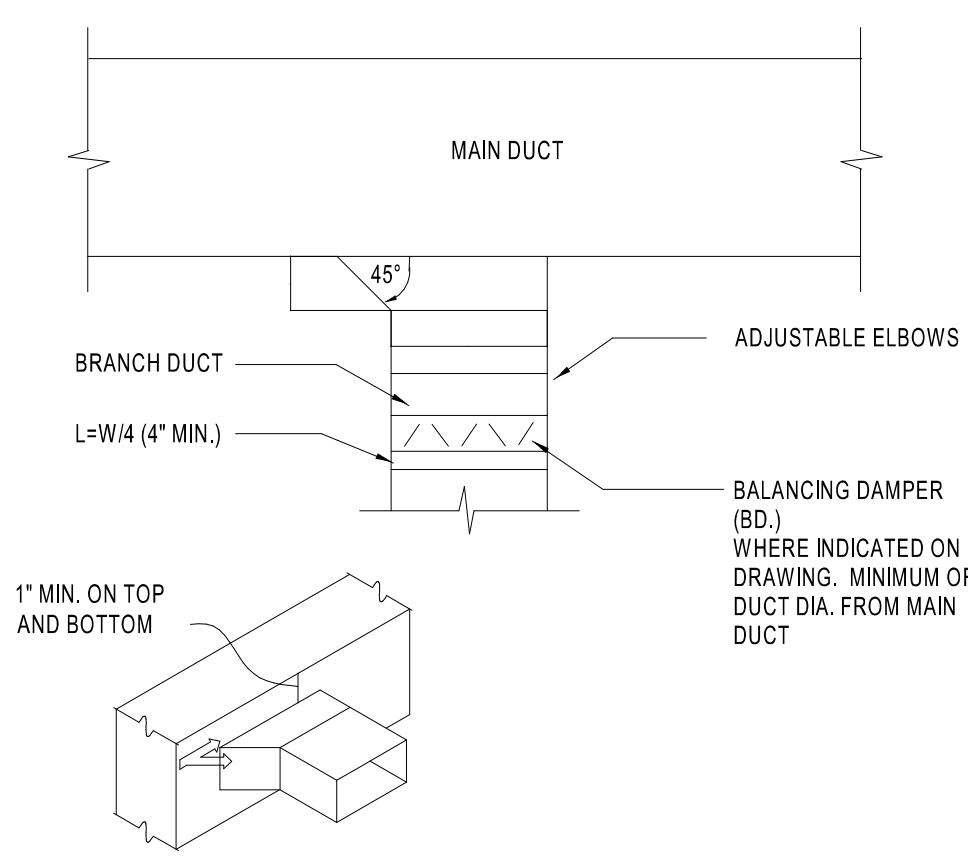
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WAWA
STORE NUMBER: 6106
1000 W. WAWA BLVD.
LUMBERTON, NC 28358
JOB NUMBER: 42-23-6010

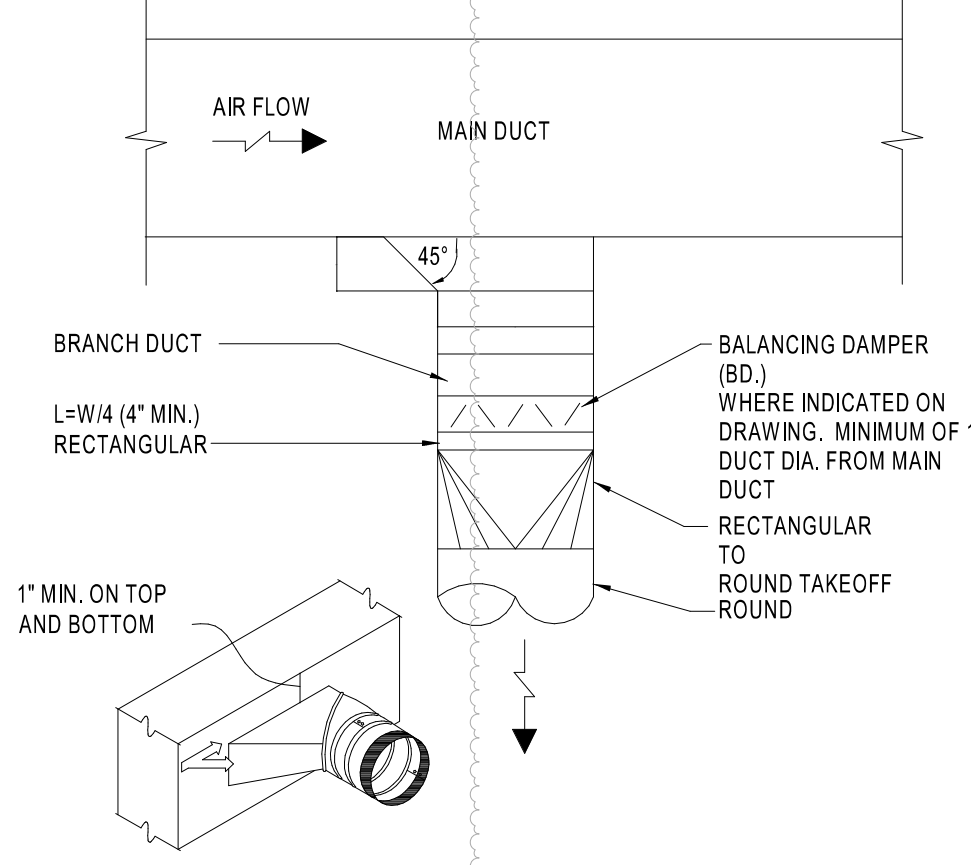
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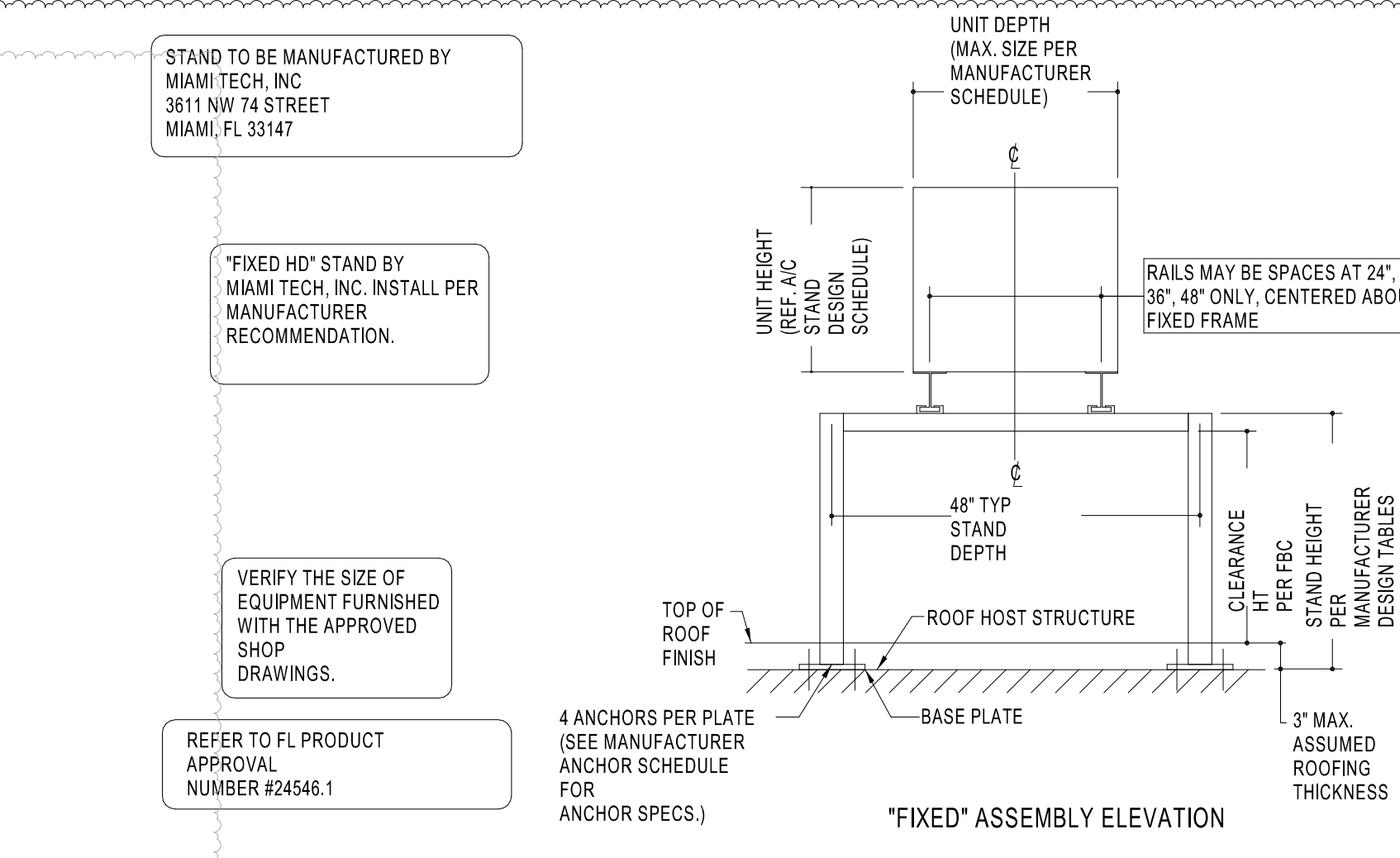
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1 RECTANGULAR BRANCH CONNECTION
M4.0 NTS

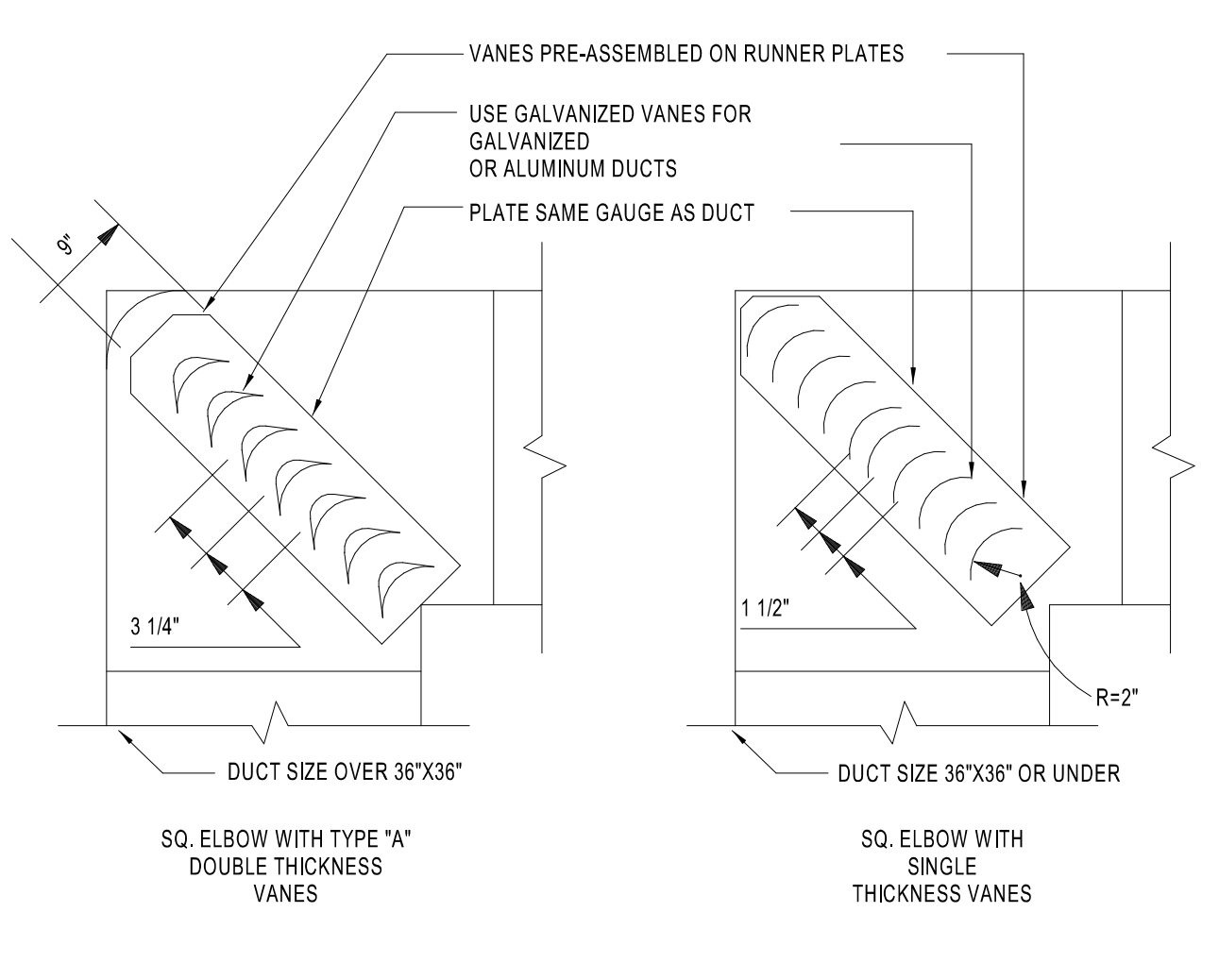


2 ROUND BRANCH CONNECTION
M4.0 NTS



3 CONDENSING UNIT FRAMING SUPPORT
M4.0 NTS

- GENERAL NOTES:**
- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE INTERNATIONAL BUILDING CODE FOR USE WITHIN AND OUTSIDE OF THE HIGH VELOCITY HURRICANE ZONE.
 - CONTRACTOR SHALL ENSURE THAT EACH INSTALLATION ASSEMBLY MEET MINIMUM CLEARANCE HEIGHT PER BC.
 - ALL FASTENERS TO BE #10 OR GREATER SAE GRADE 5, UNLESS NOTED OTHERWISE, CADMIUM PLATED OR OTHERWISE CORROSION RESISTANT MATERIAL AND SHALL COMPLY WITH ANY APPLICABLE FEDERAL, STATE, AND LOCAL CODES. PROVIDE 15 PITCHES MIN PAST THREAD PLANE.
 - ALL EXTRUDED MEMBERS SHALL BE ALUMINUM ALLOY TYPED 6061-T6 OR 6005-T5.
 - ALUMINUM WELDING SHALL BE PERFORMED IN ACCORDANCE WITH BC WITH WELD FILLER ALLOYS MEETING ANSII/ASME AS 10 STANDARDS TO ACHIEVE ULTIMATE DESIGN STRENGTH IN ACCORDANCE WITH THE ALUMINUM DESIGN MANUAL, TABLE A.8.8 WELD FILLER. 5383 ELECTRODES. ALL ALUMINUM CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE TOLERANCE, QUALITY AND METHODS OF THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE-ALUMINUM. MINIMUM WELD IS 1/8\"/>



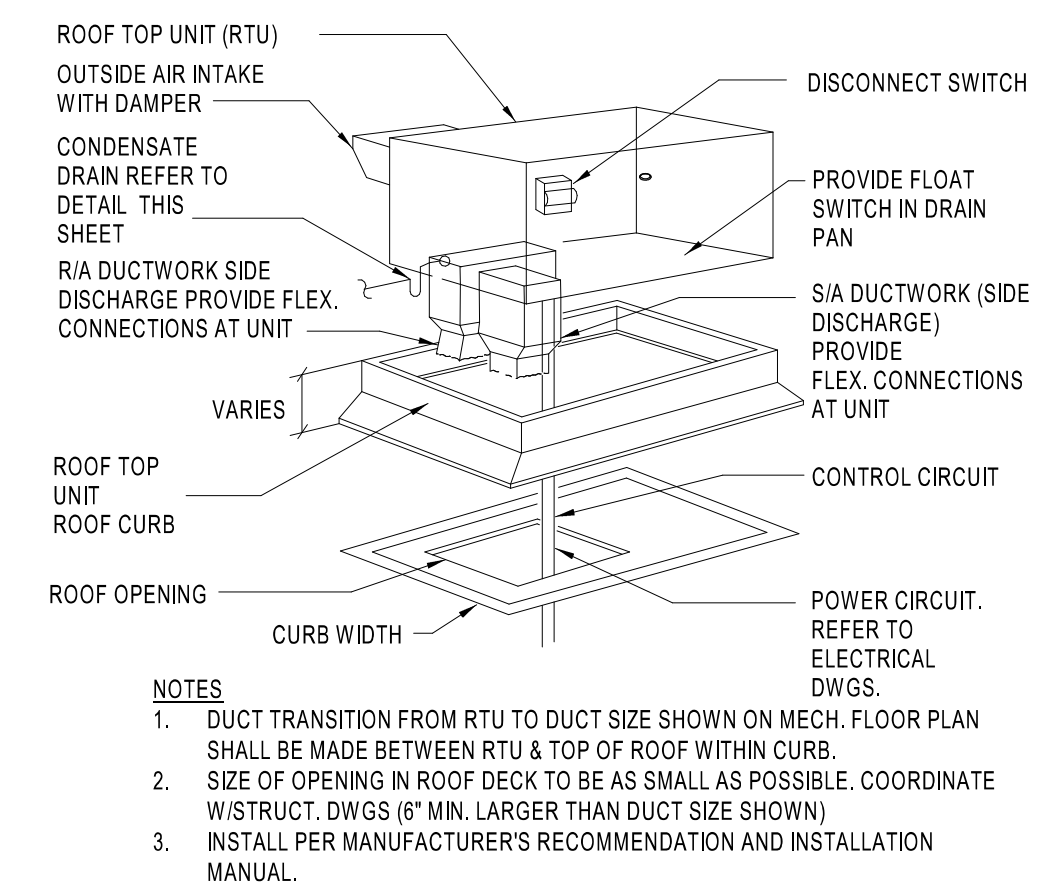
4 TURNING VANE DETAIL
M4.0 NTS

DUCT SHALL BE SECURELY FASTENED TO RUNNERS.
ALL VANES SHALL BE SECURE AND STABLE IN INSTALLED OPERATION POSITION. IF NECESSARY AT CERTAIN VELOCITIES OR PRESSURES WELD VANES TO RUNNERS ON APPROPRIATE INTERVALS ALONG RUNNERS.
TO PREVENT LINER DAMAGE CARE MUST BE EXERCISED WHEN INSTALLING VANES IN LINED OR FIBROUS GLASS DUCT.

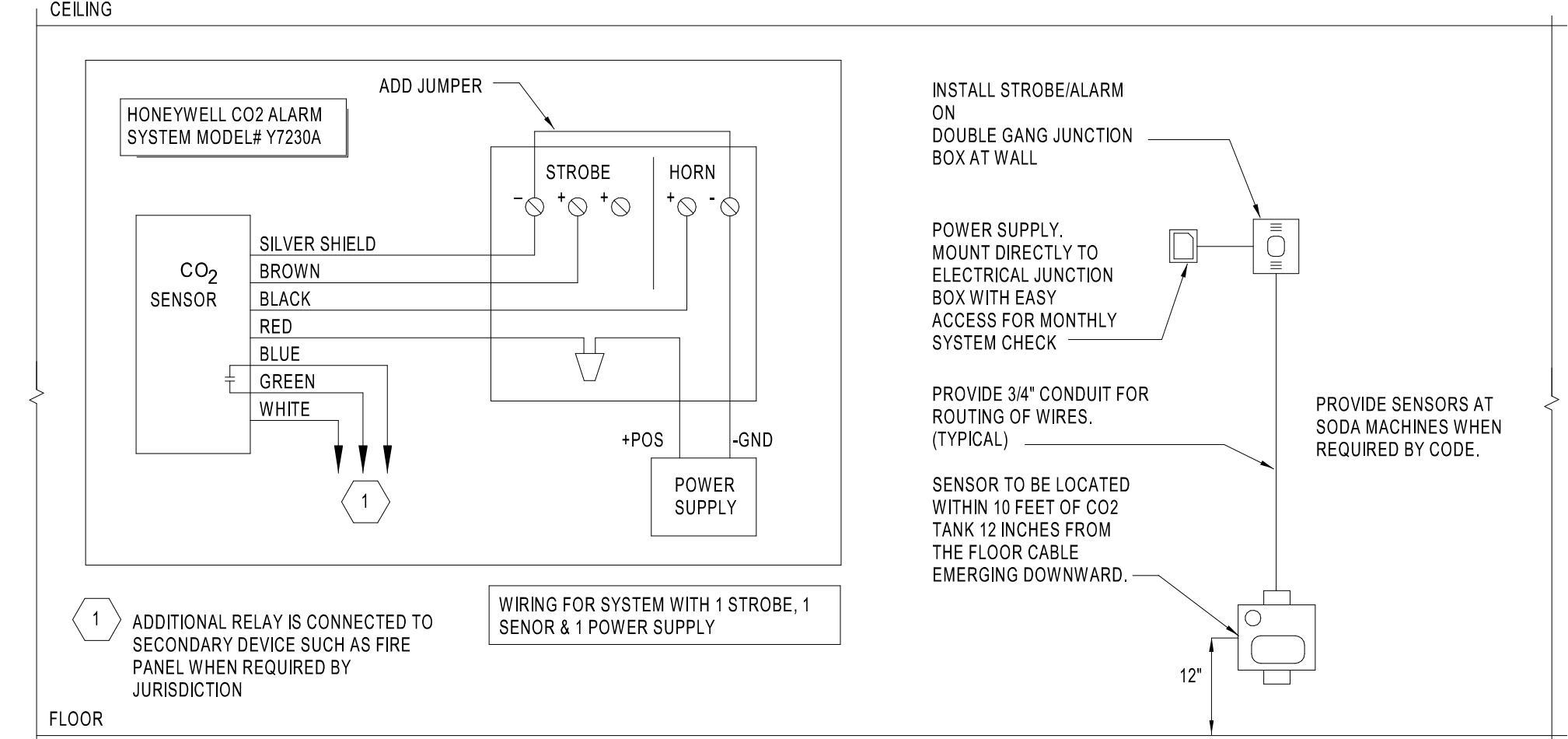
	R	SP	GA
SMALL	2"	1 1/2"	24
LARGE	4 1/2"	3 1/4"	22

* MAXIMUM UNSUPPORTED VANE LENGTH
SMALL SINGLE VANE 36"
LARGE SINGLE VANE 36"
SMALL DOUBLE VANE 60"
LARGE DOUBLE VANE 72"

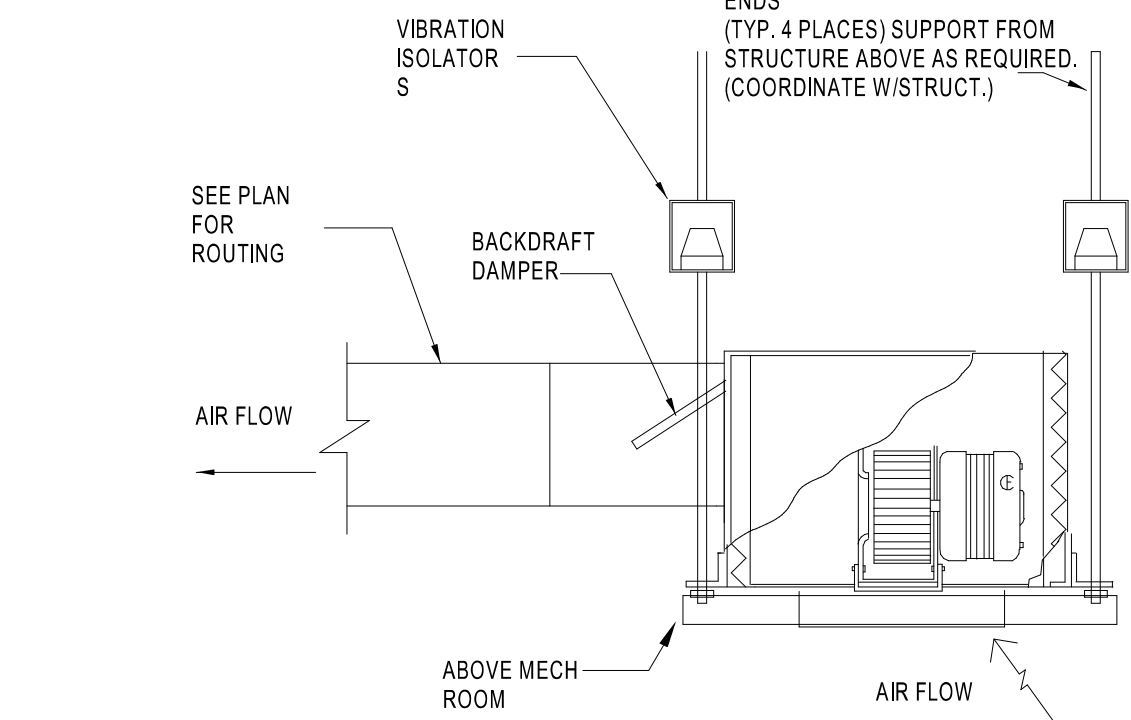
NOTE: FOLLOW PER SMACNA STANDARDS.



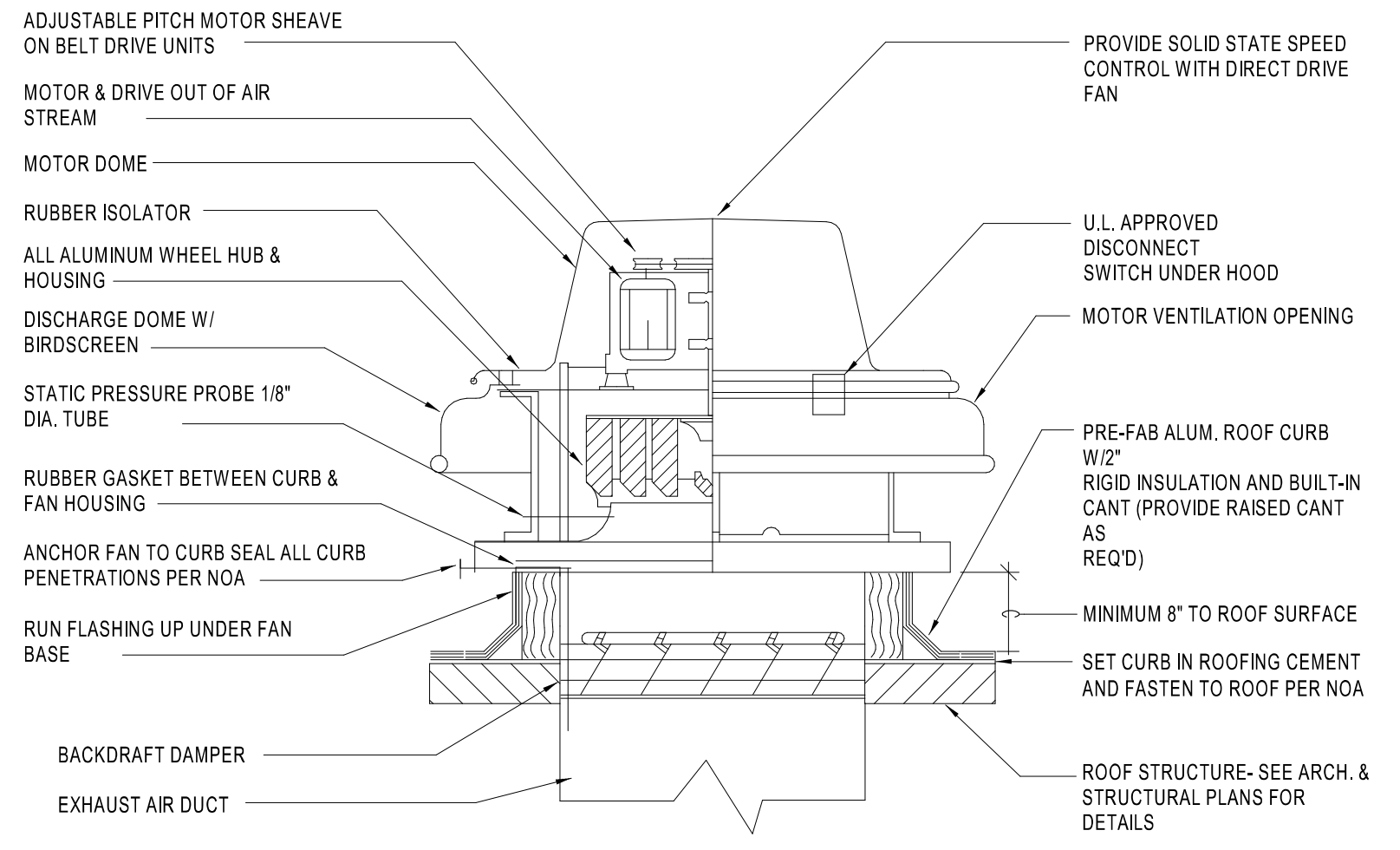
5 ROOF TOP UNIT MOUNTING DETAIL
M4.0 NTS



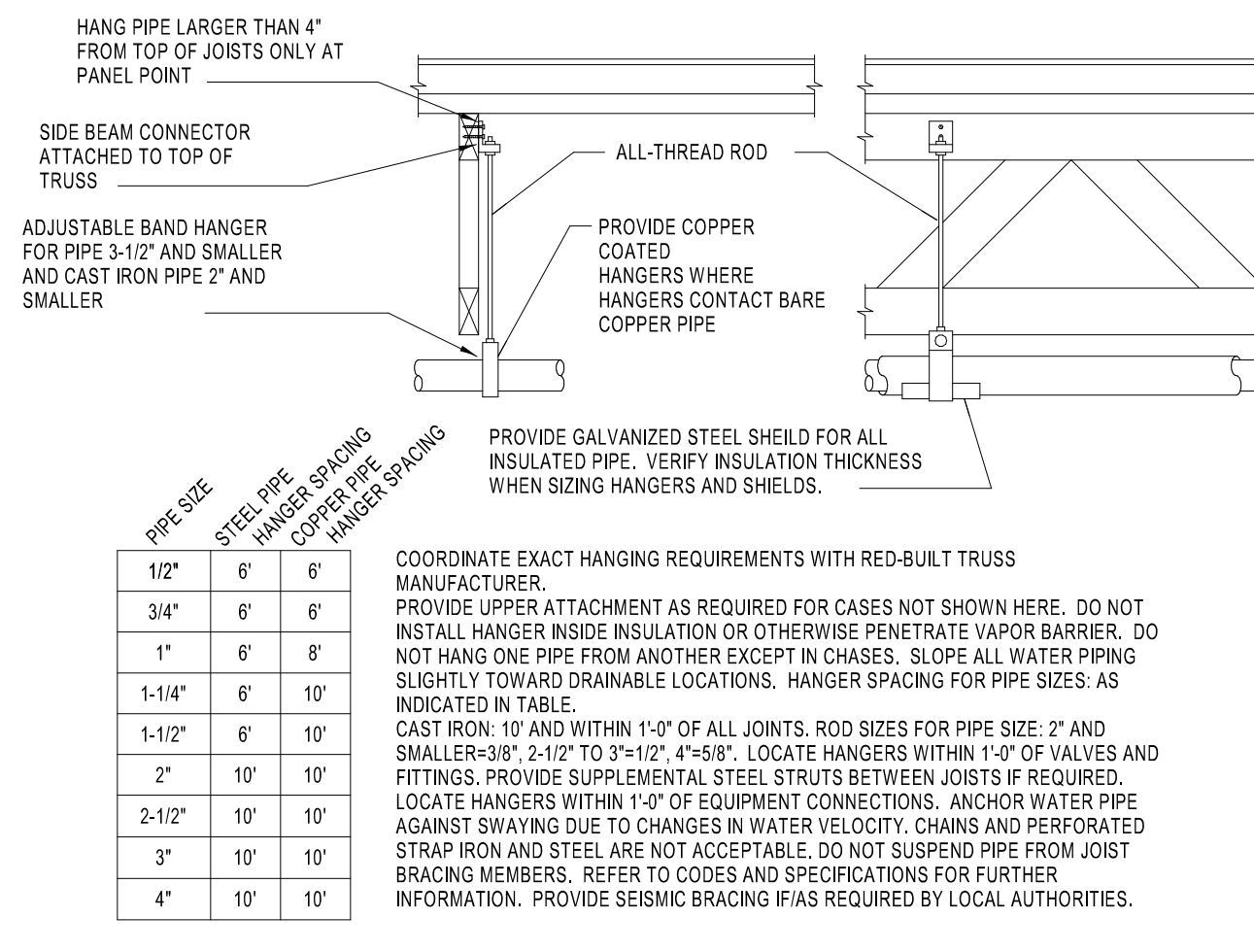
6 CO2 ALARM SYSTEM DETAIL
M4.0 NTS



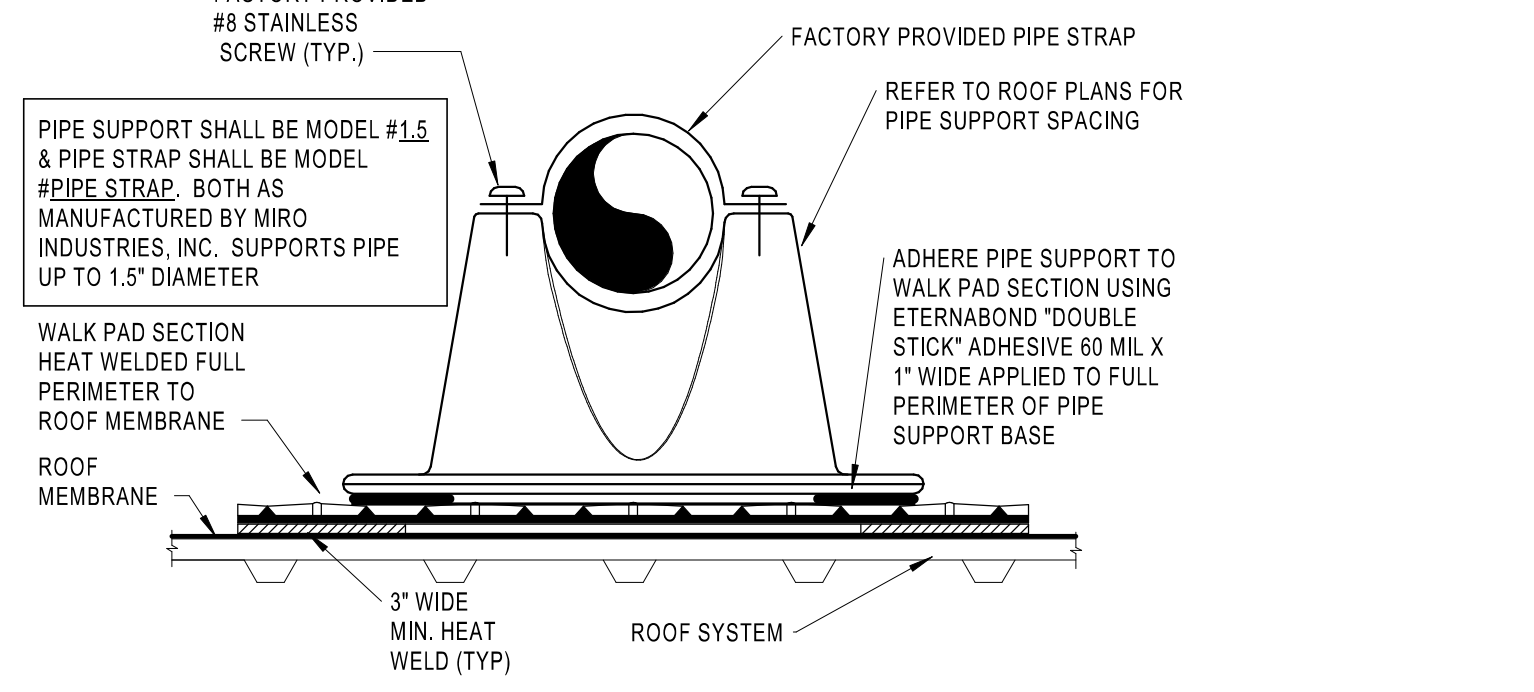
7 CEILING EXHAUST FAN DETAIL
M4.0 NTS



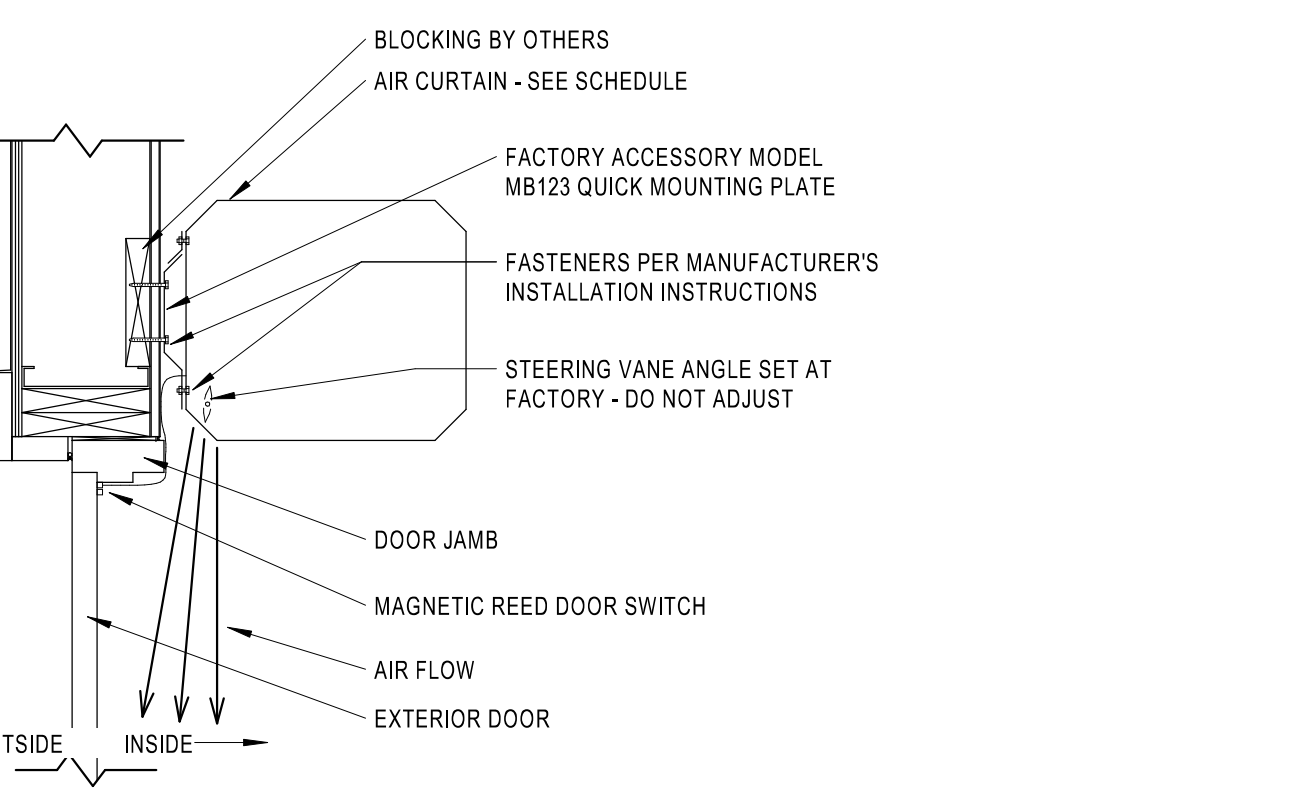
8 TYPICAL EXHAUST FAN DETAIL
M4.0 NTS



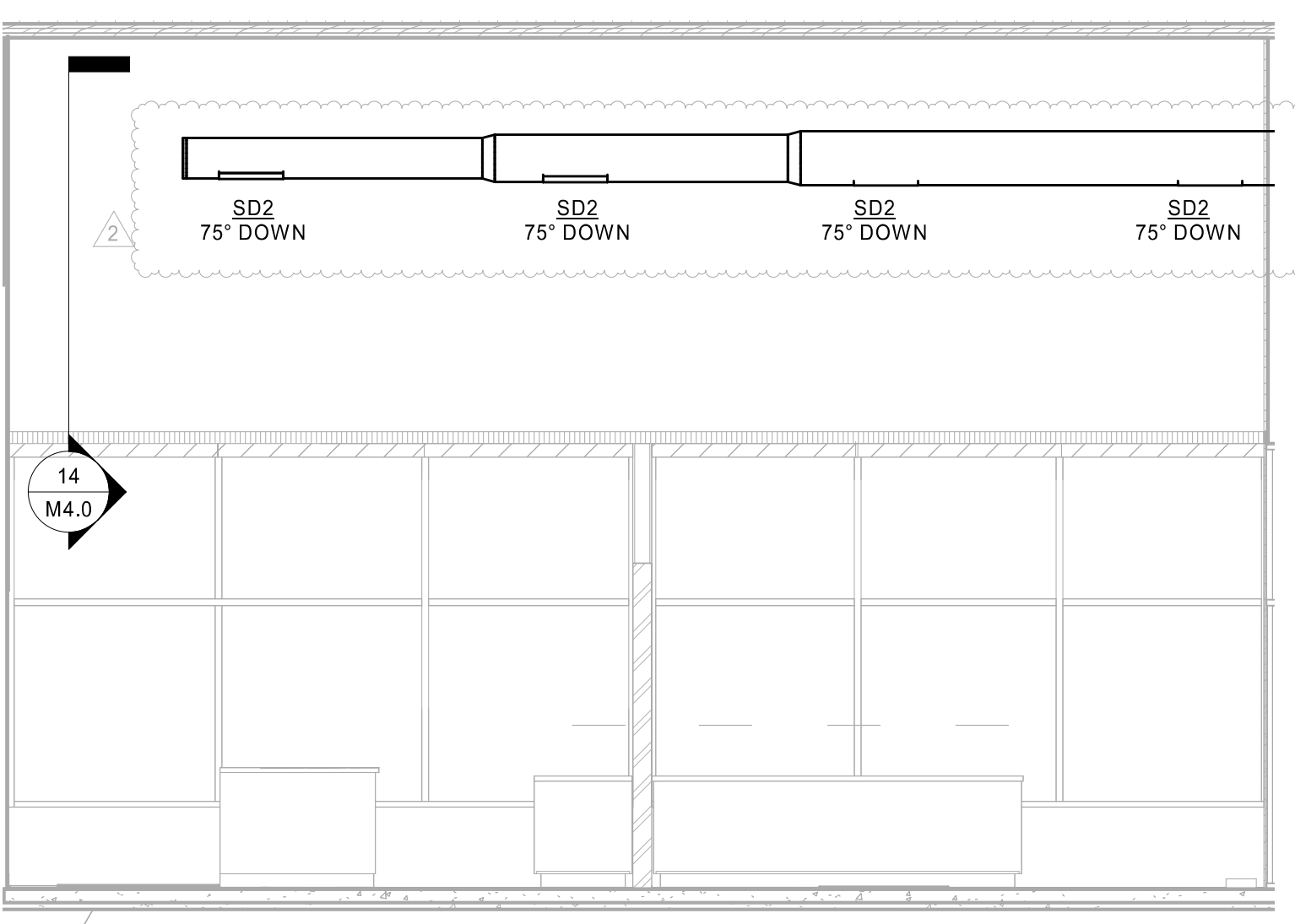
9 PIPE HANGER FOR WOOD JOIST DETAIL
M4.0 NTS



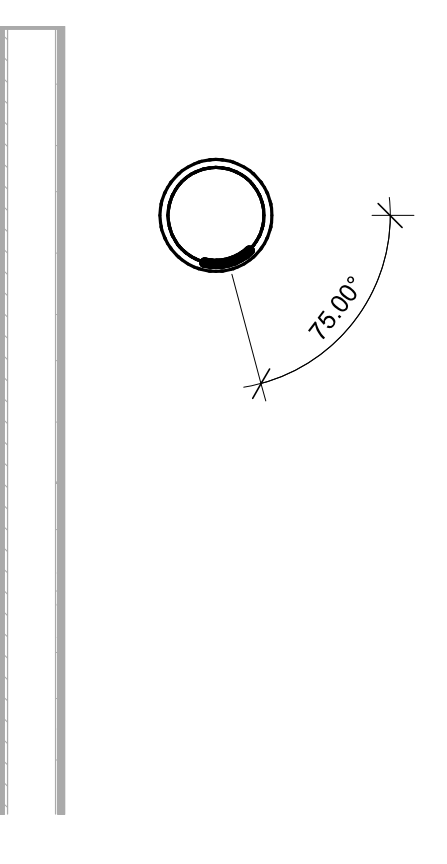
10 HVAC CONDENSATE PIPE ROOF SUPPORT DETAIL
M4.0 NTS



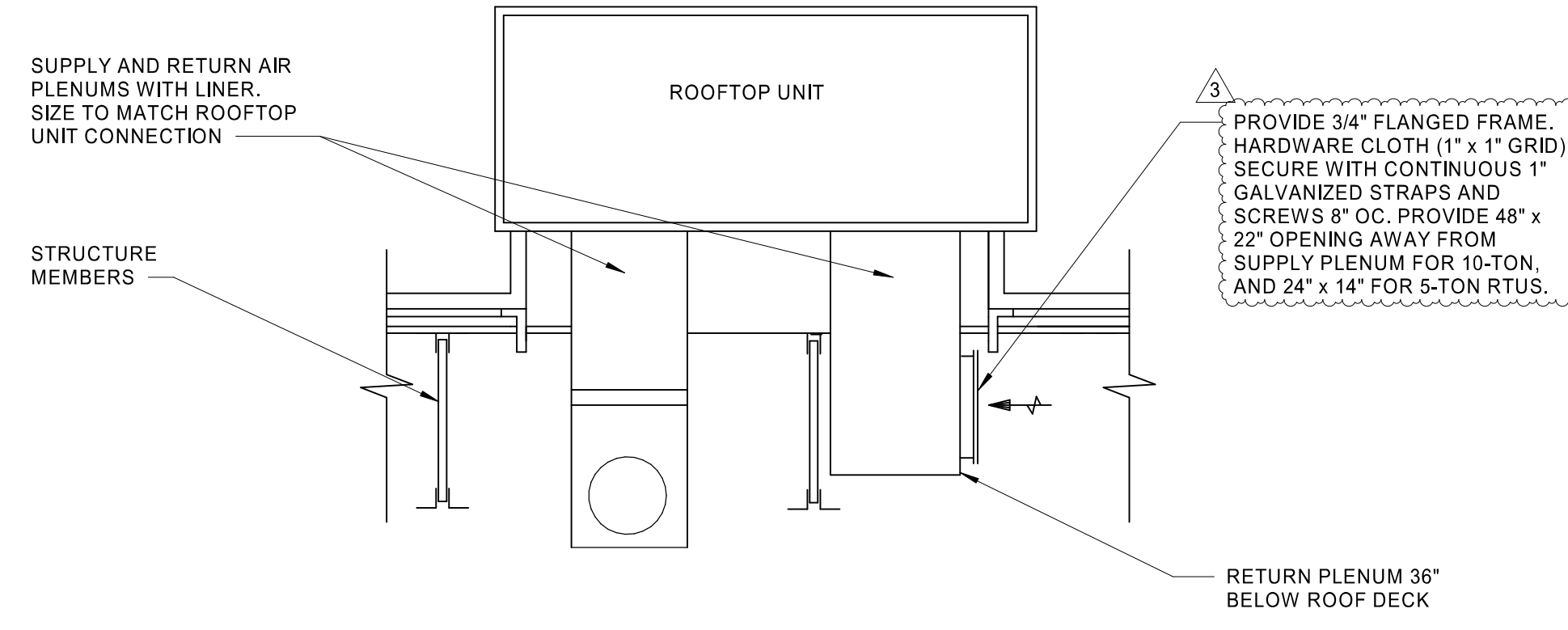
11 HVAC AIR CURTAIN INSTALLATION DETAIL
M4.0 NTS



13 FRONT RETAIL DIFFUSER LAYOUT
M4.0 14\"/>



14 FRONT RETAIL DIFFUSER ANGLE DETAIL
M4.0 12\"/>



15 RTU DUCTWORK DROP DETAIL
M4.0 NOT TO SCALE



2024.05.22 14:37:07-05:00
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MECHANICAL DETAILS

SHEET: M4.0