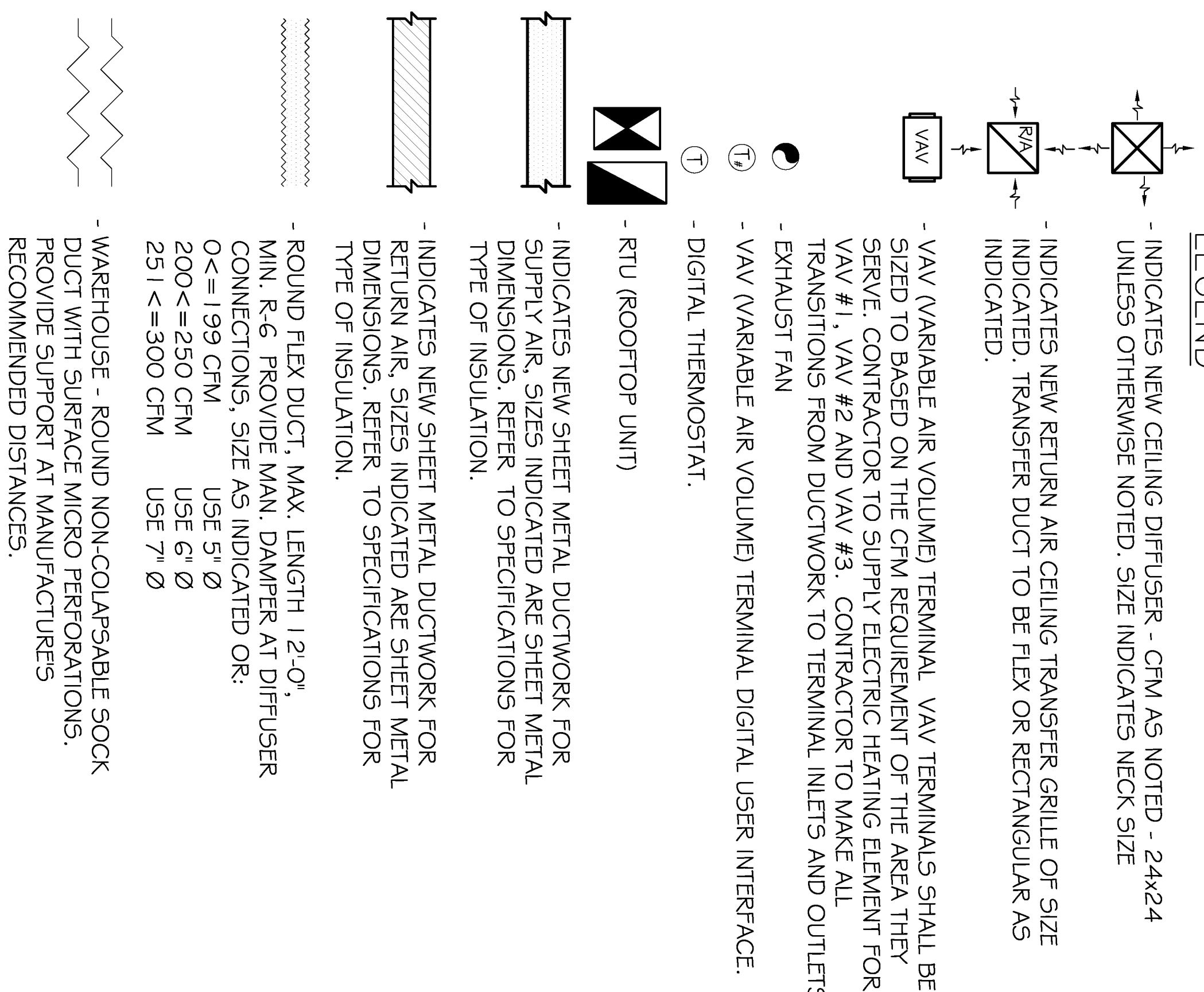
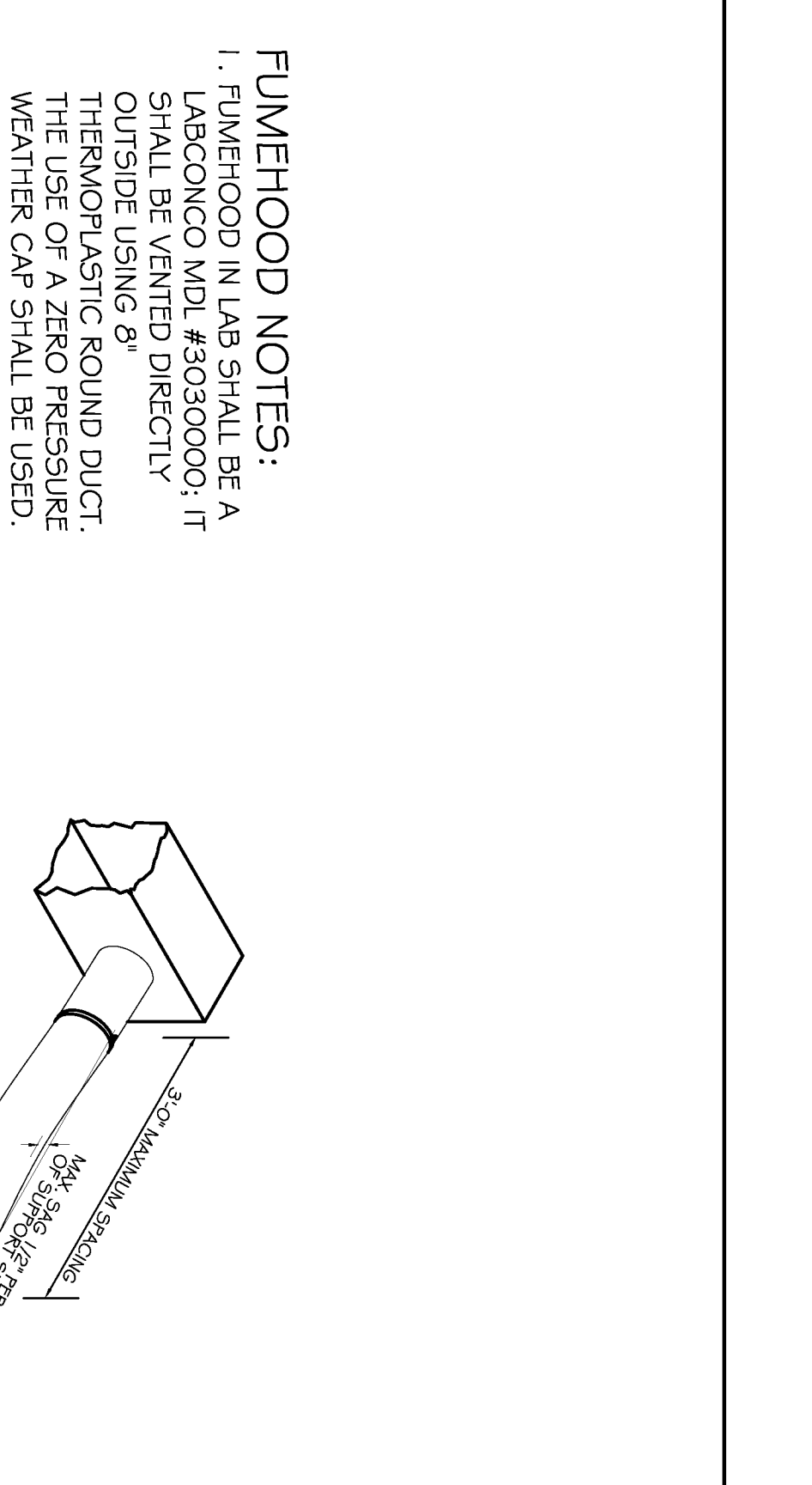


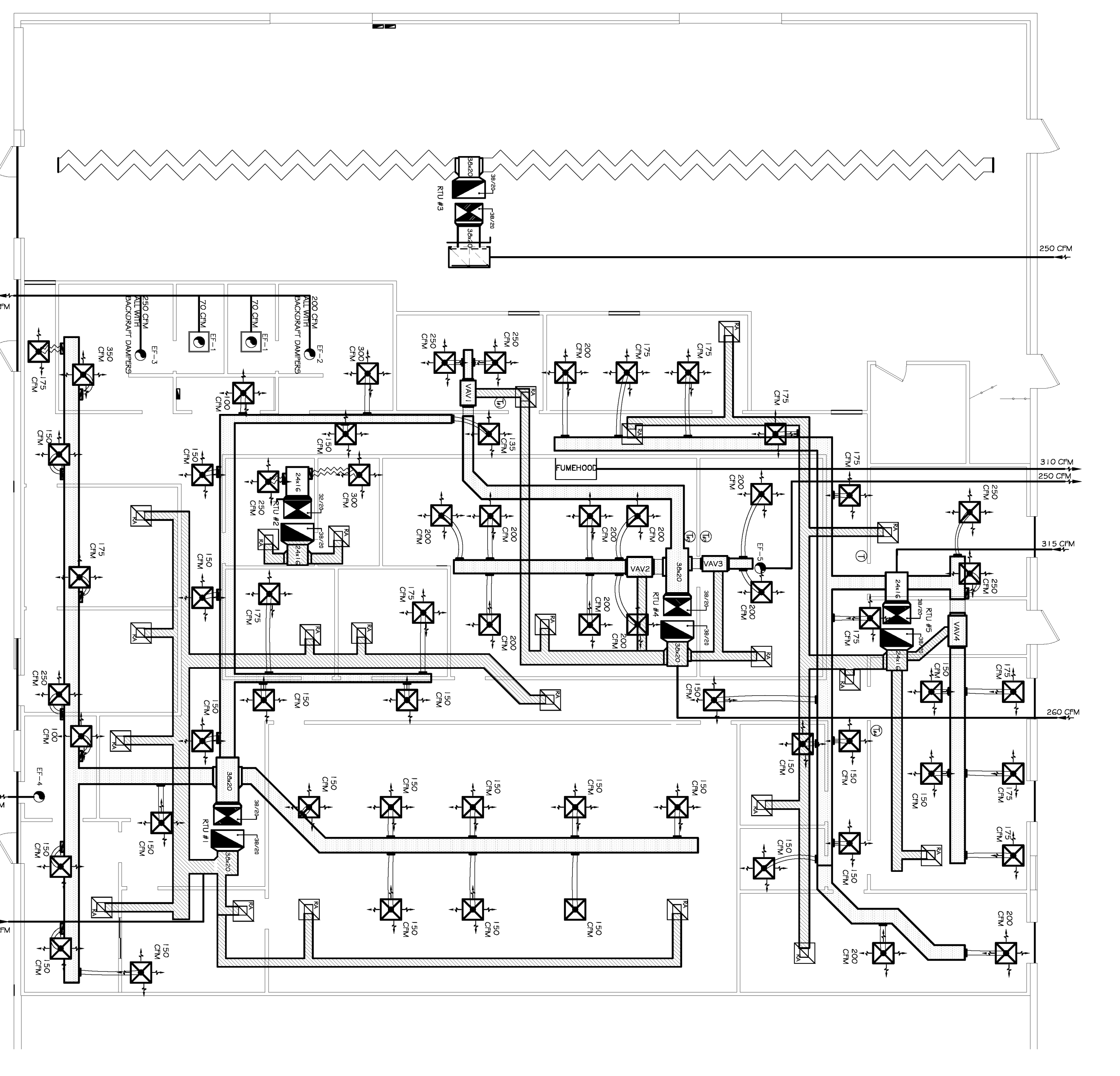
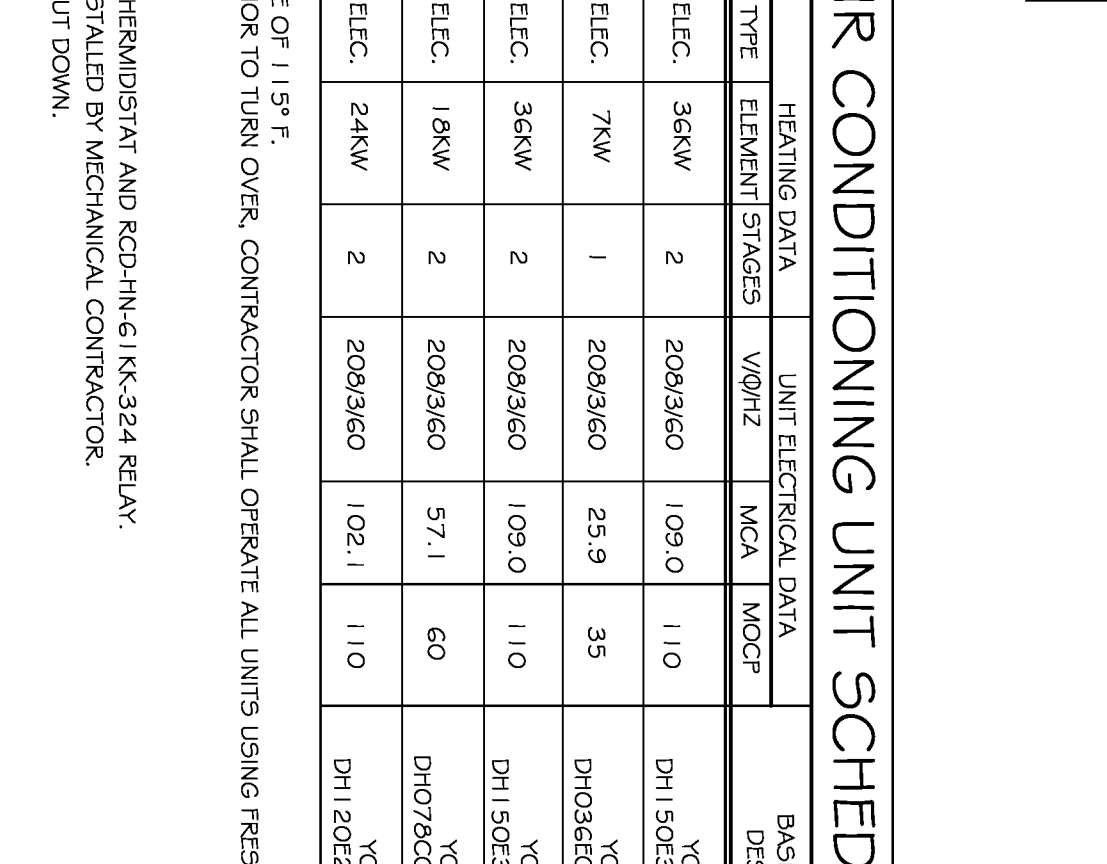
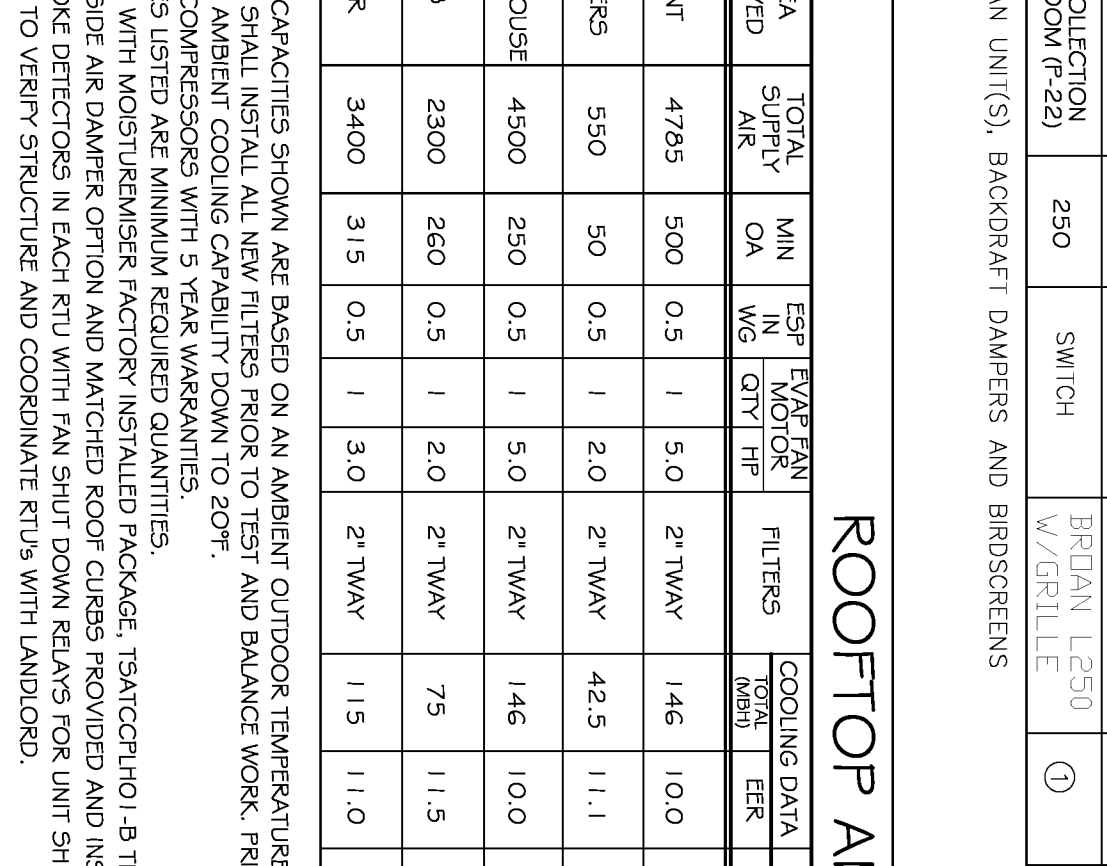
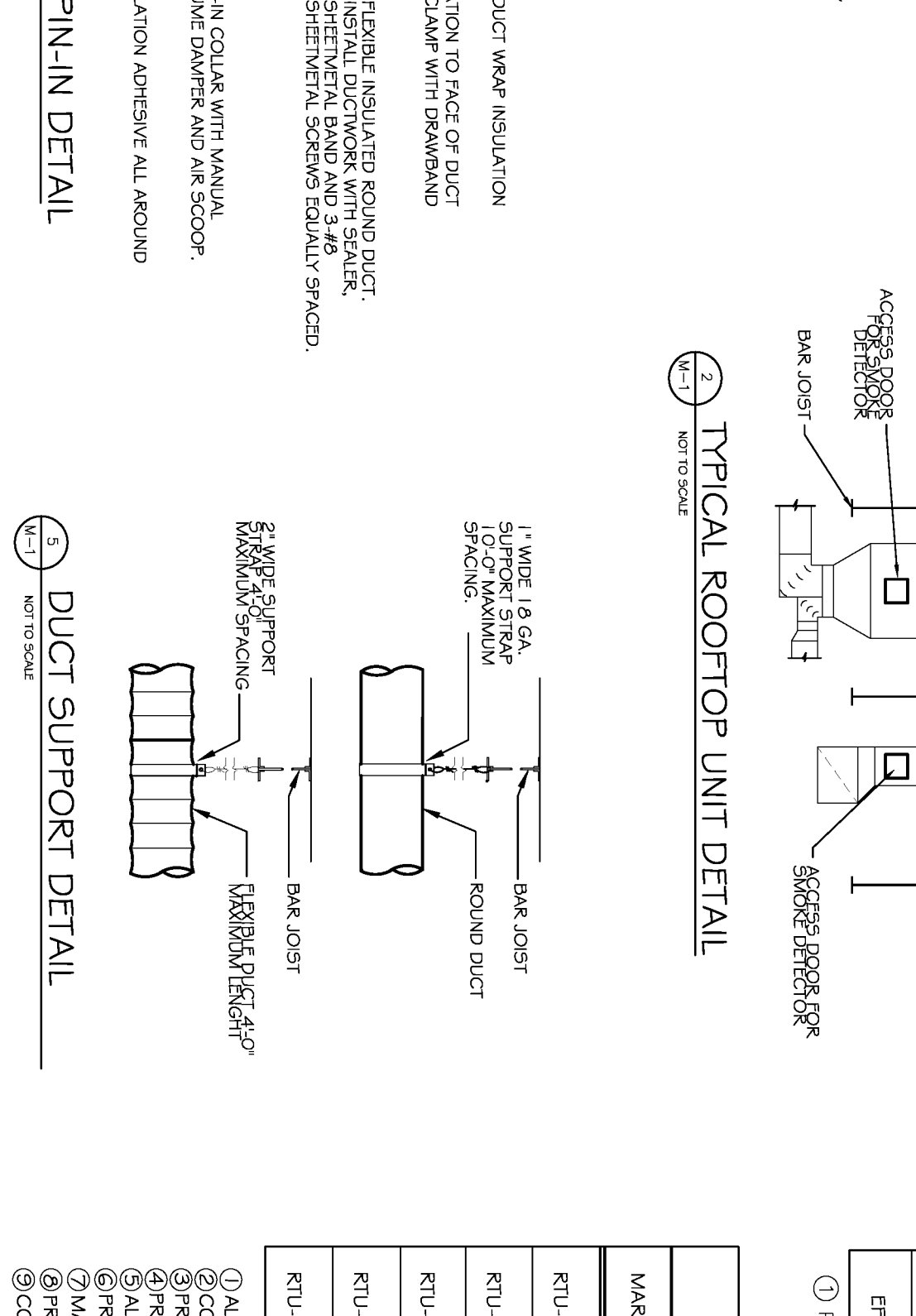
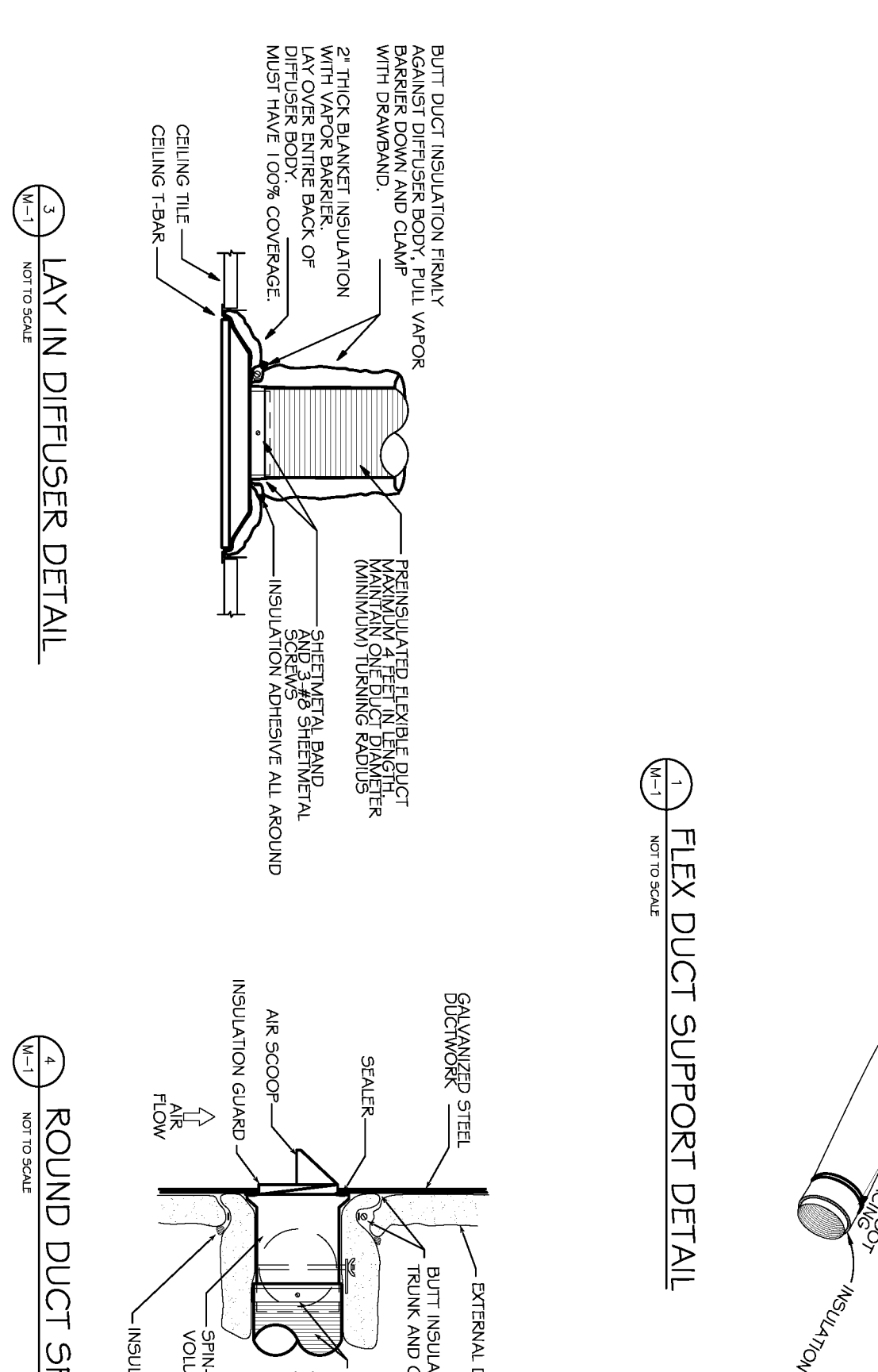
LEGEND



- MECHANICAL NOTES:**
1. ALL DUCTWORK SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH SMACNA STANDARDS.
 2. ALL NEW SUPPLY AIR DUCTS, RETURN AIR DUCTS, OUTSIDE AIR DUCTS AND PLenums SHALL BE GALVANIZED STEEL, EXTERNALLY INSULATED WITH 2" THICK 1 PCF DENSITY INSULATION WITH FOIL FACING.
 3. ROUND FLEXIBLE DUCT TO BE UL-181, CLASS 1, AIR DUCT MATERIALS.
 4. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
 5. IN ALL SYSTEMS 2000 CFM AND OVER, BUT LESS THAN 15,000 CFM, SMOKE DETECTORS SHALL BE INSTALLED, IN ACCORDANCE WITH NFPA 72E & NFPA 90A. IN THE RETURN DUCT UPSTREAM OF THE AIR HANDLING UNIT AND DOWNSTREAM OF ALL FILTERS TO AUTOMATICALLY SHUT OFF THE FAN, IN ADDITION TO SMOKE DETECTOR, PROVIDE FIRSTST CONTROL WITH FIXED CUTOFF TEMP. OF 125°F IN THE SUPPLY AIR DUCT DOWNSTREAM OF THE AIR HANDLING UNIT.
 6. IF MORE THAN ONE SYSTEM IS SERVING A SHARED AREA AND THE TOTAL CFM OF THE COMBINED SYSTEMS SERVING THE SHARED AREA ARE GREATER THAN 2,000 CFM, THEN BOTH UNITS SHALL BE EQUIPPED WITH A SMOKE DETECTOR IN THE RETURN DUCT.
 7. PROVIDE UL LISTED FIRE DAMPERS WHERE REQUIRED BY CODE, INCLUDING OUTSIDE AIR INTAKES, FIRE RATED ASSEMBLIES AND WHERE REQUIRED BY CONTRACT. PROVIDE OUTSIDE AIR INTAKES, CONDENSATE DRAINS TO BE PVC PIPE RUN TO PLUMBERS F-TRA* WITHIN FIVE FEET OF AIR HANDLING UNITS.
 8. ALL AIR HANDLING SYSTEMS TO BE BALANCED TO ASSURE PROPER AIR FLOWS PER PLANS.
 9. ALL THERMOSTATS TO BE AUTOMATIC CHANGEOVER WITH HEAT SWITCH.
 10. EXHAUST FAN EQUAL TO BROAN MODEL NO. 100 CF, OR EQUAL. FAN SHALL BE CONTROLLED BY A SWITCH ON THE WALL IN THE SAME LOCATION AS LIGHT SWITCH(S). PROVIDE BACK DRAFT DAMPER.
 12. PROVIDE AND INSTALL WATER PROOF GRILLE VENT IN PROPER ROOF LOCATION FOR PLUMBING FIXTURE EXHAUST.
 13. ALL SUPPLY AIR VENTS SHALL BE EQUIPPED WITH AIR CONTROL DAMPERS.
 14. REFRIGERANT LINES SHALL BE SIZED BY UNIT MANUFACTURER AND INSTALLED ACCORDING TO MANUFACTURERS' INSTRUCTIONS.
 15. FRESH AIR SHALL BE SUPPLIED TO EACH AIR HANDLER THROUGH EXTERIOR WALL DUCT SUPPLIED WITH A CONTROL DAMPER. LOCATE FRESH AIR VENTS NO LESS THAN 15 FEET FROM EXHAUST AND SEWER VENTS.
 16. ALL ELECTRICAL, MECHANICAL, AND PLUMBING PENETRATING FIRE WALLS SHALL BE FIRE CALKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E8-14).
 17. ALL MECHANICAL SYMBOLS ARE DRAWN DIAGRAMMATICALLY. CONTRACTOR TO VERIFY WITH OWNER LOCATIONS OF VENTS, DAMPERS, REGISTERS, ETC.
 18. REFER TO STRUCTURAL DRAWINGS TO COORDINATE LOCATIONS) & MOUNTING OF MECHANICAL EQUIPMENT.
 19. FLEXIBLE DUCTWORK LENGTH NOT TO EXCEED 12'-0" EXCEPT IN WAREHOUSE COORDINATE AS REQUIRED.
 20. REFER TO REFLECTED CEILING PLAN FOR FINAL GRILLE AND DIFFUSER LOCATIONS AND JOBS SITE.
 21. FINAL LOCATION OF TEMPERATURE CONTROLS TO BE COORDINATED WITH OWNER AT JOBS SITE.
 22. PROVIDE AND INSTALL SMOKE DETECTORS AS APPROVED BY LOCAL AHJ'S.
 23. FRESH AIR INTAKES ARE REQUIRED TO HAVE MOTORIZED OR GRAVITY DAMPERS TO SHUT OFF WHEN SYSTEM IS NOT RUNNING. ALL THERMOSTATS MUST BE PROGRAMMABLE. SEE SECTIONS 502.4.4 OR 503.2.4.3 OF THE 2009 INTERNATIONAL ENERGY CODE.



- FUMEHOOD NOTES:**
1. FUMEHOOD IN LAB SHALL BE A LABCONCO MDL.#303000; IT SHALL BE VENTED DIRECTLY OUTSIDE USING 8" THERMOPLASTIC ROUND DUCT. THE USE OF A ZERO PRESSURE WEATHER CAP SHALL BE USED.



FAN SCHEDULE

MARK	AREA SERVED	CFM	CONTROLLED BY	BASIS OF DESIGN	REMARKS
EF-1	SHOWERS	70	MOTION SENSOR	BRIQAN 657 W/ GRILLE	①
EF-2	WOMENS RESTROOM	200	MOTION SENSOR	BRIQAN 01200 W/GRILLE	①
EF-3	MENS RESTROOM	250	MOTION SENSOR	BRIQAN L250 W/GRILLE	①
EF-4	UNisex RESTROOM	80	MOTION SENSOR	BRIQAN 01080 W/GRILLE	①
EF-5	COLLECTION ROOM (F-22)	250	SWITCH	BRIQAN L250 W/GRILLE	①

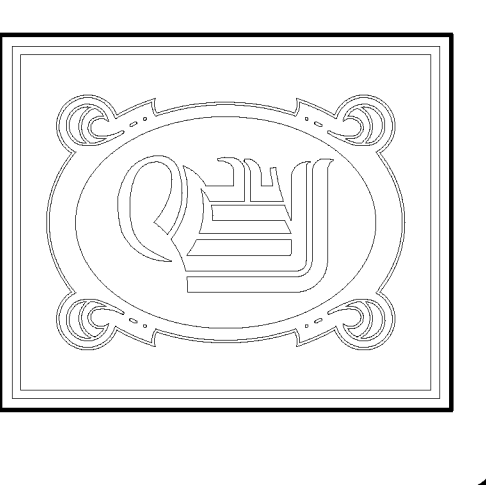
MECHANICAL PLAN

SCALE 1/8" = 1'-0"

ROOFTOP AIR CONDITIONING UNIT SCHEDULE

MARK	AREA SERVED	TOTAL SUPPLY CA	MIN CA	TEST VOLUME W/ DUCT	FILTERS	COOLING DATA			HEATING DATA			BASIS OF DESIGN	UNIT WEIGHT	REMARKS				
						TOTAL TON	FEET	TYPE	ELEMENT	STAGES	VOLUME				MCA	MOCP		
RTU-1	FRONT	4755	500	0.5	1	5.0	2.1WkW	146	10.0	ELC	36kW	2	208/360	109.0	110	YORK DH150D56B2AAA3	1197 LBS.	①②③④⑤⑥⑦⑧⑨
RTU-2	SERVICES	550	50	0.5	1	2.0	2.1WkW	42.5	11.1	ELC	7kW	1	208/360	25.9	35	YORK DH036E07B2AAA2	740 LBS.	①②③④⑤⑥⑦⑧⑨
RTU-3	WAREHOUSE	4500	250	0.5	1	5.0	2.1WkW	146	10.0	ELC	36kW	2	208/360	109.0	110	YORK DH150D56B2AAA3	1197 LBS.	①②③④⑤⑥⑦⑧⑨
RTU-4	LAB	2300	260	0.5	1	2.0	2.1WkW	75	11.5	ELC	16kW	2	208/360	57.1	60	DH075C0302AAA4	1099 LBS.	①②③④⑤⑥⑦⑧⑨
RTU-5	REAR	3400	315	0.5	1	3.0	2.1WkW	115	11.0	ELC	24kW	2	208/360	102.1	110	DH120D24B2AAA4	1207 LBS.	①②③④⑤⑥⑦⑧⑨

- ① ALL COOLING CAPACITIES SHOWN ARE BASED ON AN AMBIENT OUTDOOR TEMPERATURE OF 115° F.
- ② CONTRACTOR SHALL INSTALL ALL NEW FILTERS PRIOR TO TEST AND BALANCE WORK. PRIOR TO TURN OVER. CONTRACTOR SHALL OPERATE ALL UNITS USING FRESH AIR ONLY FOR A PERIOD OF 24 HRS.
- ③ PROVIDE LOW AMBIENT COOLING CAPABILITY DOWN TO 20° F.
- ④ PROVIDE ALL COMPRESSORS WITH 5 YEAR WARRANTIES.
- ⑤ ALL CAPACITIES LISTED ARE MINIMUM REQUIRED QUANTITIES.
- ⑥ CONTRACTOR TO VERIFY STRUCTURE AND COORDINATE RTUs WITH LANDSCAPE.
- ⑦ MAKE OUTSIDE AIR DAMPER OPTION AND MATCHED SCOP DAMPS PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
- ⑧ PROVIDE SMOKE DETECTORS IN EACH RTU WITH FAN SHUT DOWN RELAYS FOR UNIT SHUT DOWN.
- ⑨ CONTRACTOR TO VERIFY STRUCTURE AND COORDINATE RTUs WITH LANDSCAPE.



DAMMON ENGINEERING, INC.
 CHIEF ENGINEER
 EMMETT DAMMON, P.E.
 CHIEF ARCHITECT
 ROBERT WILTSE

554 OLD SPANISH TRAIL
 SLIDELL, LA, 70458
 OFFICE: 985-649-5632
 FAX: 985-641-5950

WWW.DAMMONENGINEERING.COM
 EMAIL: DAMMONENG@BELL.SOUTH.NET

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US DEPARTMENT OF AGRICULTURE

APHIS FACILITY
 924 KENNER AVE.
 KENNER LOUISIANA
 70458

MECHANICAL PLAN

REVI
 SCALE: AS NOTED
 JOB#: _____
 DATE: 1/6/2012
 SHEET