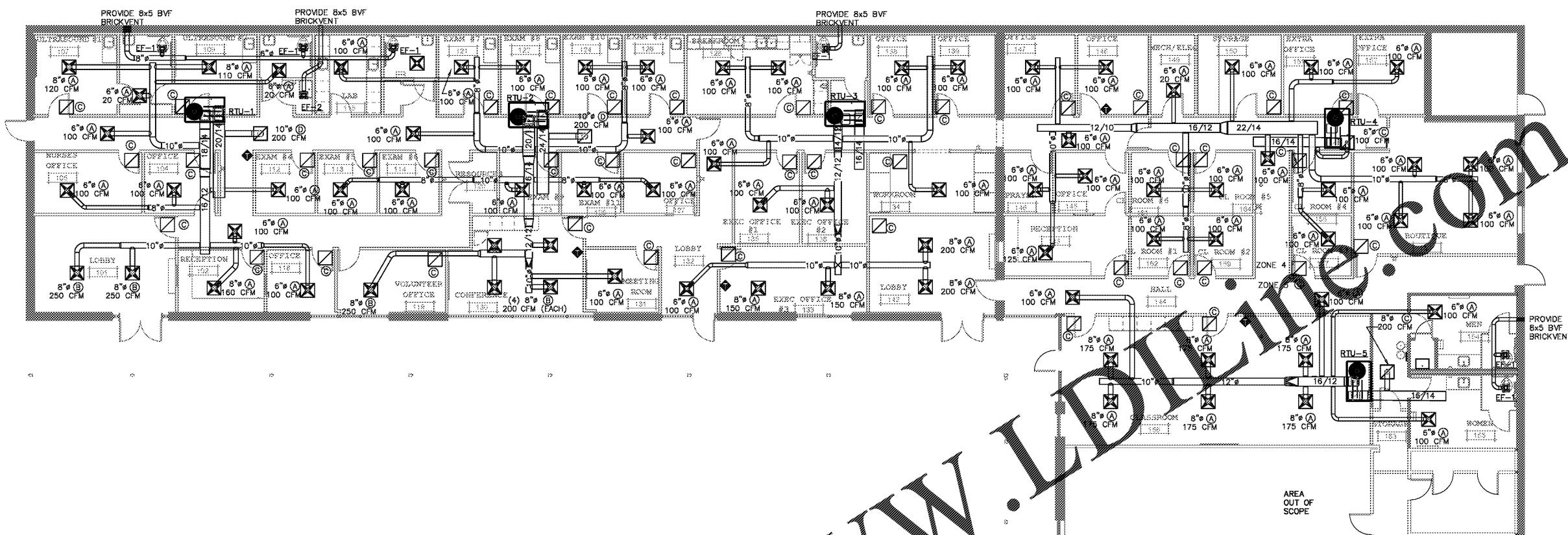


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1 HVAC FLOOR PLAN
SCALE: 1/8" = 1'-0"

MECHANICAL SPECIFICATIONS

INTENT: IT IS THE INTENT OF THE CONTRACT DOCUMENTS THAT THE CONTRACTOR FURNISH AND INSTALL ALL MATERIALS AND SYSTEMS, WITH NECESSARY AND INCIDENTAL APPURTANCES, FOR A COMPLETE, FUNCTIONAL INSTALLATION, READY AND SUITABLE FOR THE OWNER'S USE.

CODES: WORK UNDER THIS CONTRACT SHALL BE GOVERNED BY ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES. THE INTERNATIONAL MECHANICAL, BUILDING AND PLUMBING CODES SHALL FORM THE BASIS FOR MINIMUM CONSTRUCTION STANDARDS FOR THIS PROJECT.

FEES, PERMITS, AND TAXES: CONTRACTOR SHALL MAKE ARRANGEMENTS FOR INSPECTIONS AND PAY ALL LAWFUL FEES AND PERMITS REQUIRED BY LOCAL AUTHORITIES. CONTRACTOR SHALL PAY TAXES LEVIED FOR LABOR AND MATERIALS ASSOCIATED WITH WORK ON THIS PROJECT.

GUARANTEE: WORK AND MATERIALS TO BE GUARANTEED FOR ONE (1) YEAR AFTER PROJECT COMPLETION. HVAC REFRIGERATION SYSTEM COMPONENTS SHALL HAVE AN ADDITIONAL 4-YEAR WARRANTY.

DUCTWORK: LOW PRESSURE-LESS THAN 2" WG AND VELOCITIES BELOW 2000 FPM - RIGID - G90 GALVANIZED SHEET METAL PER SMACNA.

INSULATION: DUCTWORK, PLENUM AREA- SUPPLY AND RETURN AIR DUCTS TO BE EXTERNALLY INSULATED WITH FOIL FACED FIBERGLASS INSULATION. INSULATION TO HAVE AT LEAST A R-5 INSTALL VALUE.

ADJUSTING AND BALANCING: ALL EQUIPMENT AND SYSTEMS SHALL BE ADJUSTED AND BALANCED SO THAT THEY PERFORM TO THE SATISFACTION OF THE ARCHITECT. AIR DISTRIBUTION SYSTEM SHALL BE ADJUSTED TO THE AIR QUANTITIES INDICATED AND TO ELIMINATE ANY TEMPERATURE GRADIENTS BETWEEN ROOMS OR WITHIN ANY ROOMS GREATER THAN 3 DEGREES F.

INSTALL ALL HVAC PER SMACNA STANDARDS. PROVIDE ONE YEAR PARTS AND LABOR WARRANTY ON ENTIRE MECHANICAL INSTALLATION.

GENERAL NOTES:

- 1) ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE INSULATED WITH 2" THICK EXTERNAL INSULATION MEETING RB. SEE SPECIFICATIONS.
- 2) NO INSULATION IS REQUIRED ON EXHAUST AIR DUCTWORK.
- 3) FLEXIBLE DUCTWORK SHALL BE PERMITTED FOR THE LAST 6FT. PRIOR TO A SUPPLY OR RETURN GRILL OR REGISTER.
- 4) SEE ARCHITECTURAL PLANS FOR REFLECTED CEILING PLAN COORDINATING ALL ITEMS IN THE CEILING INCLUDING LIGHTS, DIFFUSERS, SPRINKLER HEADS, ETC.
- 5) EXPOSE AND TAG ALL VOLUME DAMPERS FOR TEST AND BALANCE.
- 6) ALL DUCTWORK THAT TERMINATES AT A GRILL OR REGISTER SHALL INCLUDE A MANUAL VOLUME DAMPER. FOR SUPPLY DUCTS, THIS DAMPER SHALL BE INTEGRAL TO THE TAKE-OFF. IF NOT ACCESSIBLE AT THIS LOCATION DUE TO ATTIC, LOCATE AS SHOWN ON PLANS. USE BELLMOUTH FITTINGS WHERE SPACE PERMITS. OTHERWISE, USE SPIN-INS WITHOUT SCOOPS. DAMPERS IN THE RETURN SHALL BE LOCATED AS CLOSE TO THE MAIN TRUNK AS POSSIBLE.
- 7) ALL RADUSED ELBOWS SHOWN ARE FULL RADIUS ELL'S, THE RADIUS OF CURVATURE TO THE CENTER OF DUCT SHALL BE 1.5 TIMES THE DUCT DIAMETER.
- 8) MAINTAIN 10FT. CLEARANCE BETWEEN ALL OUTSIDE AIR INTAKES AND EXHAUST AND VENT OUTLETS.
- 9) ALL ADHESIVES AND SEALANTS USED MUST BE LOW VOC PER SPECIFICATIONS.
- 10) CONTRACTOR SHALL KEEP ALL DUCT OPENINGS, TAKE-OFFS, ETC. SEALED DURING CONSTRUCTION TO PREVENT CONSTRUCTION DEBRIS OUT OF THE DUCTWORK. IF UNITS ARE OPERATED DURING CONSTRUCTION, ALL RETURN OPENINGS MUST BE PROTECTED WITH FILTERS OF A MINIMUM VALUE OF MERV 8.
- 11) NOTE THAT DEVIATIONS IN DUCTWORK ROUTING WILL BE REQUIRED TO ACCOMMODATE ACTUAL FRAMING, ETC. ANY MAJOR MODIFICATIONS TO DUCTWORK SHALL BE SUBMITTED TO ENGINEER FOR REVIEW/APPROVAL.

HVAC LEGEND

	SUPPLY DUCT CROSS SECTION		CFM CUBIC FEET PER MINUTE
	RETURN, EXHAUST, OR OUTSIDE AIR DUCT CROSS SECTION		2HR. FIRE DAMPER
	RADIUS ELBOW: 45 DEGREE SHOWN, USE ON ALL GREATER THAN 7 DEGREE UNLESS 90 DEGREE MITERED SHOWN		DUCT SMOKE DETECTOR
	SUPPLY DUCT SHOWN TURNING DOWN		APPROX. POINT OF CONNECTION - NEW TO EXISTING
	RETURN, EXHAUST, OR OUTSIDE AIR DUCT SHOWN TURNING UP		THERMOSTAT
	90 MITERED ELBOW WITH DOUBLE THICK TURNING VANES		SIZE OF DUCT SERVING DIFFUSER
	RECTANGULAR DUCT 12"x10". DIMENSIONS SHOWN ARE NET INTERNAL DIMENSIONS.		DIFFUSER TYPE, SEE DIFFUSER SCHEDULE. SCHEDULE ALSO LISTS DIFFUSER SIZE.
	ROUND DUCTWORK		AIR VOLUME OF DIFFUSER
	RECTANGULAR DUCTWORK		DUCT CONNECTION TO THE NECK OF A GRILL OR REGISTER
	FLEXIBLE DUCTWORK		DUCT CONNECTION TO PLENUM BOX ABOVE GRILL.
			RELOCATED DIFFUSER
			EXHAUST FAN
			FILTER BOX

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37411
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HVAC FLOOR PLAN

M101

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